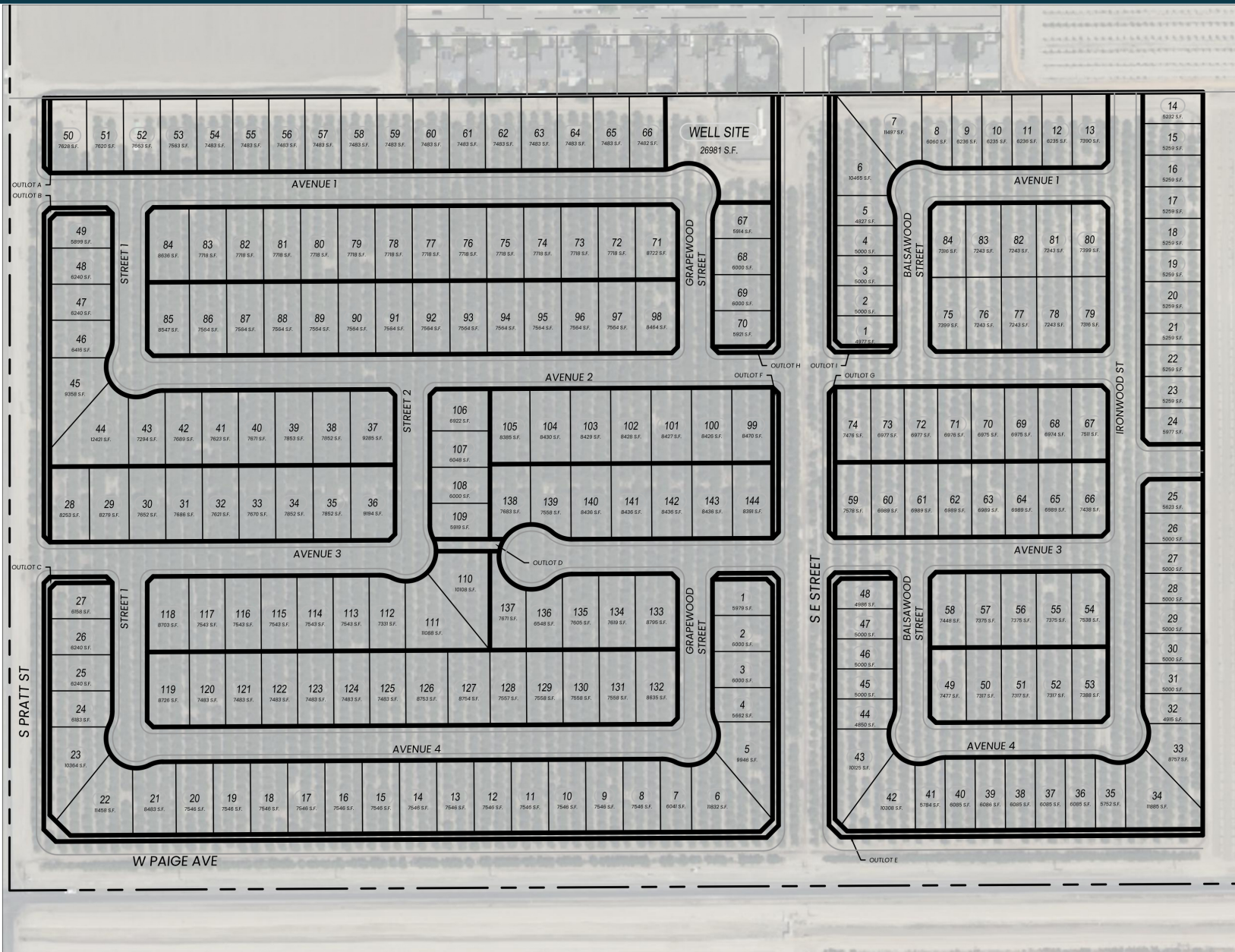


Draft Initial Study and Mitigated Negative Declaration for Lekkerkerker Property Subdivision

November 2024



Prepared By:



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324 S Santa Fe, Suite A
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Prepared For:



City of Tulare
411 East Kern Ave
Tulare, CA 93230

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SECTION I: CEQA Review Process

Project Title: Lekkerkerker Property Subdivision

1.1. California Environmental Quality Act Guidelines

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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 subdivision of approximately 57.31 acres of undeveloped land for the construction and operation of 228 single-family residential dwelling units ("Project"). The City of Tulare ("City") will act as the Lead Agency for this Project under CEQA and the State 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

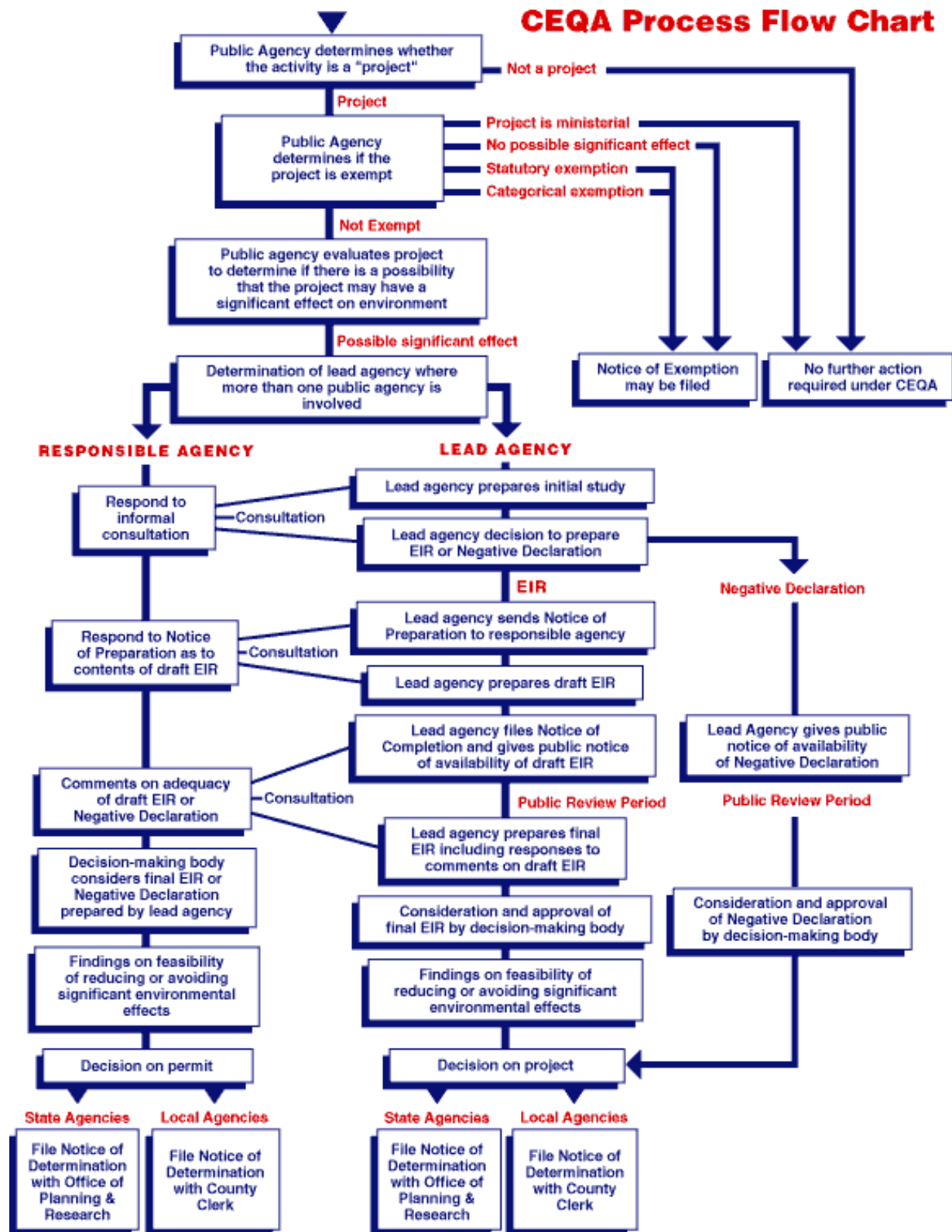
Agency must balance any potential environmental effects against other public objectives, including economic and social goals. The City of Tulare, as the Lead Agency, will make a determination, based on the environmental review for the Environmental Study, Initial Study and comments from the general public, 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 Chart





City of Tulare

411 E Kern Ave
Tulare, CA 93274

SECTION 2: Project Description

Project Title: Lekkerkerker Property Subdivision

2.1. Project Description and Purpose

The Project proposes to subdivide the 57.31-acre site for 228 single-family residential homes. Proposed infrastructure improvements also include public streets and utilities for the proposed homes and a temporary stormwater basin. An existing on-site well system would be retained by the Project. The proposed residential development would complement and provide street interconnectivity with the existing residential development to the north. The Project would help address the need for housing within the City and region, and is located within an area of the City that is currently zoned and designated for residential land uses.

2.2. Project Location

The proposed Project consists of approximately 57.31 acres of land in the southern portion of the City encompassing two parcels (Assessor's Parcel Numbers: 174-030-009 and 174-030-010) at the northeast corner of W. Paige Avenue and S. Pratt Street ("Project Site"). The Project Site is currently an agricultural land use. It is approximately 275 feet above mean sea level and gently slopes to the west southwest. Archival research of available historical topographic maps and aerial photographs identified the Project Site as being utilized for agricultural purposes for the past century. The Project Site is surrounded by agricultural land uses to the south, east, and west as well both agricultural land uses and existing low-density single-family residential development to the north.

2.3. Other Permits and Approvals

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



Figure 2-1. Vicinity Map

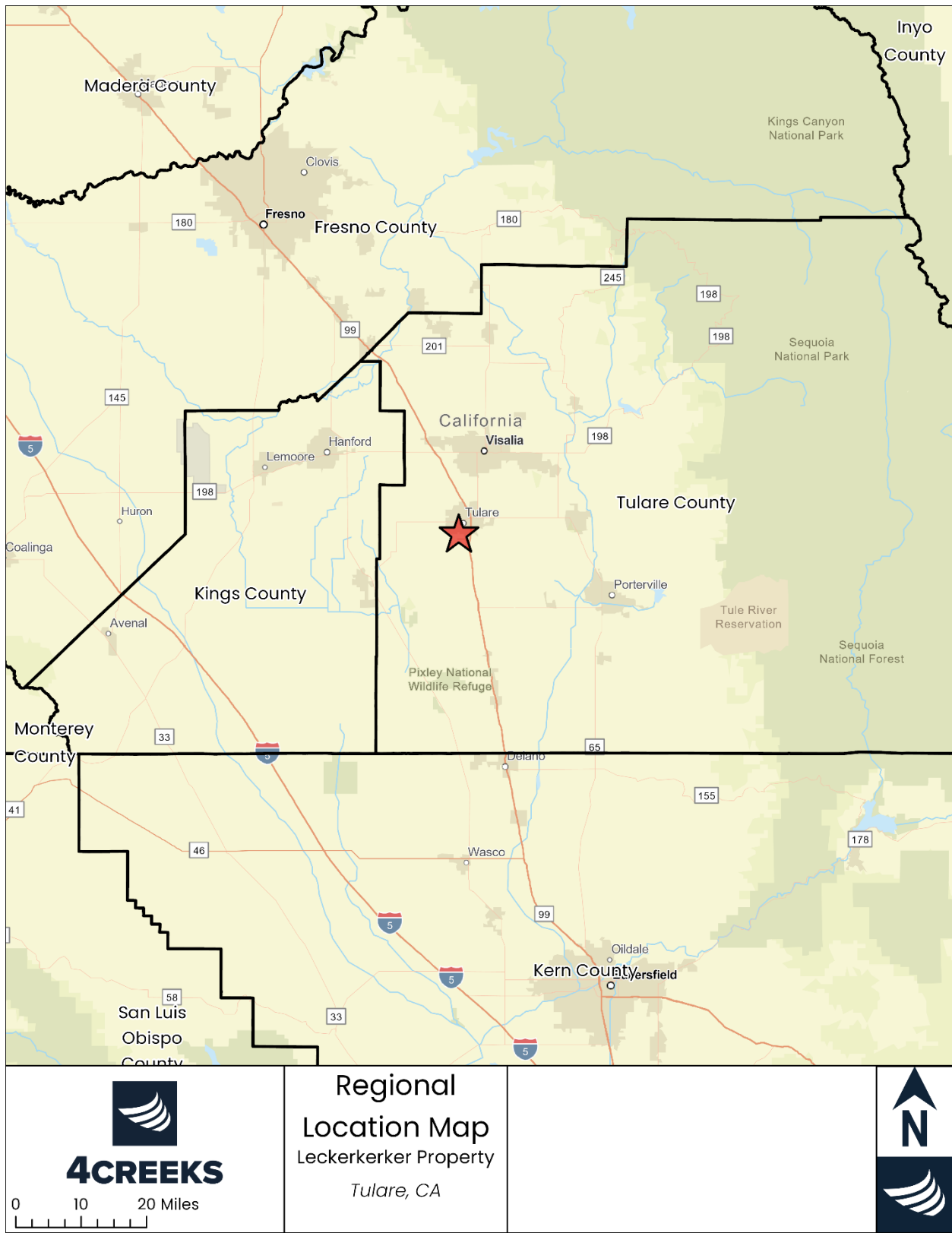


Figure 2-2. Regional Location Map



City of Tulare

411 E Kern Ave
Tulare, CA 93274

SECTION 3: Evaluation of Environmental Impacts **Project Title: Lekkerkerker Property Subdivision**

This document is the Initial Study/Mitigated Negative Declaration for the proposed subdivision of approximately 57.31 acres of undeveloped land for the construction and operation of 228 single-family residential dwelling units. The City 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:** Lekkerkerker Property 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:** Artemis Partners, LLC
324 S. Santa Fe Street, Suite A
Visalia, CA, 93292
(559) 737-3748
- 4. Contact Person:** Matt Ainley
matta@artemispartners.io
- 5. Project Location:** The Project Site consists of approximately 57.31 acres of land in the southern portion of the City encompassing two parcels (Assessor's Parcel Numbers: 174-030-009 and 174-030-010) at the northeast corner of W. Paige Avenue and S. Pratt Street. The Project Site is currently an agricultural land use. It is approximately 275 feet above mean sea level and gently slopes to the west southwest. Archival research of available historical topographic maps and aerial photographs identified the Site as being utilized for agricultural purposes for the past century. The site is surrounded by agricultural land uses to the south, east, and west as well as both agricultural land uses and existing low-density single-family residential development to the north.
- 6. General Plan Designation:** Low Density Residential
- 7. Zoning Designation:** APN 174-030-009 is zoned R-1-5 (Single-Family Residential, minimum 5,000-square-foot lot) and APN 174-030-010 is zoned R-1-6 (Single-Family Residential, minimum 6,000-square-foot lot)
- 8. Project Description:** The Project proposes to subdivide the 57.31-acre site for 228 single-family residential. Proposed infrastructure improvements also include public streets and utilities for the proposed homes. Improvements would also include the widening of Paige Avenue and Pratt Street and the inclusion of a Class I Bike Facility along Paige Avenue as well as a Class II Bike Facility along Pratt Street. The Project will also be responsible for the retention of any stormwater runoff created by the Project which will be facilitated through the creation of a basin within the northeast corner of the Project site. A City Well site exists on-site and will be retained by the City and accommodated by the Project.. The proposed

residential development would complement and provide street interconnectivity with the existing residential development to the north.

Parking and Access:

Each residential lot would include a private driveway and attached two-car garage for each home. Access to the Project Site would be provided via S. Pratt Street to the west, W. Paige Avenue to the south, and S. E Street to the north.

Utilities:

Southern California Edison (SCE) would provide electricity to the Project Site. The City would provide water and sewer service to the Project Site. The Project's proposed water pipelines would tie into the existing 12-inch diameter pipeline in S. E Street. The Project's proposed sewer pipelines would either tie into the existing 10-inch diameter pipeline in S. E Street or the existing 27-inch diameter pipeline in W. Paige Avenue. Moreover, stormwater would initially be retained on site via a temporary basin near the northeast corner of the Project Site at lots 6 through 13 before eventually connecting into a larger stormwater system to convey the stormwater off site.

9. Surrounding Land Uses and Settings:

North:

- Existing Land Use: Agriculture and single-family residential
- Zoning: R-1-5 (Single-Family Residential, minimum 5,000-square-foot lots) and AE-20 (Intensive Agricultural Uses)
- General Plan Designation: Low and Medium Density Residential

South:

- Existing Land Use: Agriculture
- Zoning: M-2 (Heavy Industrial)
- General Plan Designation: Light Industrial

East:

- Existing Land Use: Agriculture
- Zoning: R-1-5 (Single-Family Residential, minimum 5,000-square-foot lots)
- General Plan Designation: Low Density Residential

West:

- Existing Land Use: Agriculture
- Zoning: AE-20 (County – Agricultural Exclusive, 20-acre minimum parcel size)
- General Plan Designation: (City) Open Space/Agriculture

10. 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

- 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

11. 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 September 19, 2024, 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 October 19, 2024. 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
CNDDDB	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

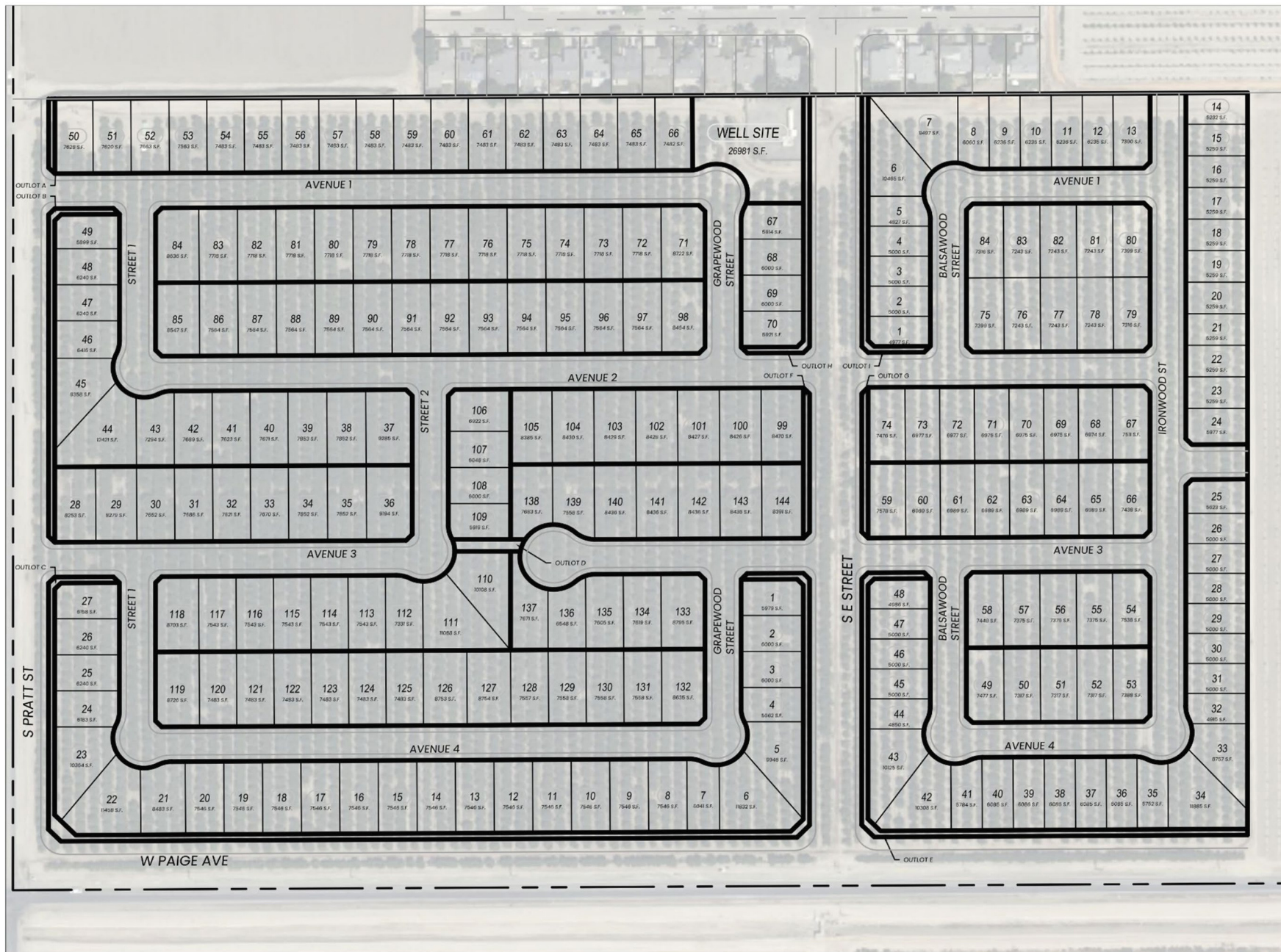
TAC Toxic Air Contaminant

TCR Tribal Cultural Resource

USGS United States Environmental Protection Agency

USEPA United States Geological Survey

USDOT United States Department of Transportation



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 is required.
4. “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c) (3)(D). In this case, a brief discussion should identify the following:
 - 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.

- | | | |
|-------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities and Service System |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Population | <input type="checkbox"/> 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

City of Tulare

LEAD AGENCY

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The following photos demonstrate the aesthetic character of the Project Site and surrounding area. As shown on photographs 1 through 3, the Project Site is on a relatively flat area with agricultural use on site, and as shown on photographs 4 through 6, the Project Site is surrounded by residential uses to the north and agriculture uses.



*Photo 1. Near southeast corner of the Project Site, facing northwest from W. Paige Avenue.
(Source: Google)*



Photo 2. Near northwest corner of the Project Site, facing southeast from S. Pratt Street. (Source: Google)



Photo 3. Northern boundary of the Project Site, facing south from S. E Street. (Source: Google)



Photo 4: Northern boundary of the Project Site, facing away from the Project Site on S. E Street toward existing single-family residences. (Source: Google)

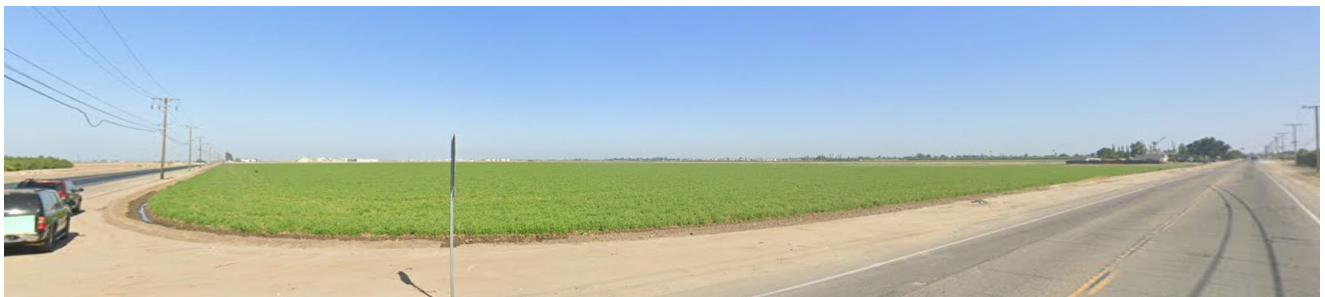


Photo 5: Agricultural use to the west of the Project Site, facing northwest from S. Pratt Street near the intersection of W. Paige Avenue. (Source: Google)



Photo 6: Agricultural use to the east of the Project Site, facing northeast from W. Paige Avenue. (Source: Google)

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 sequoia trees and scenic vistas. The Sierra Nevada Mountains are approximately 20 miles east of the proposed Project Site, and are generally slightly 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 the southern area of the City, approximately 20 miles west of the foothills of the Sierra Nevada Mountains. Due to the distance and intervening urban development, views of the mountains from the Project Site are limited. Additionally, poor air quality often obscures visibility of distant features like the Sierra Nevada Mountains. The Project involves developing 57.31 acres of agricultural land into 228 single-family residential homes, which is complementary with the existing low-density residential development to the north 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. The nearest eligible State Scenic Highway is Highway 198, located approximately 10 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 City limits and is considered part of an urbanized area. The Project Site is zoned and designated for residential land uses. The development of single-family residential land uses on the Project Site would also complement the existing residential neighborhood to the north and future developments that could occur that are also consistent with the underlying zoning and General Plan land use designations. The Project design is required to adhere to the City's zoning regulations and design guidelines, and no variance from such regulations and standards is proposed, thus the Project would align with the aesthetic character of the surrounding community. Landscaping, building materials, and architectural styles would likewise be consistent with City standards and the existing neighborhood. 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*.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forestland or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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.
 - 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. ○ 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 3-2: 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 DOC's FMMP, and 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 228 single-family residential homes, 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, and the Project would result in *no impact*.

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. Therefore, the Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, and the Project would result in *no impact*.

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 the Project would result in *no impact*.

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 57.31 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 north 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 north. The Project would complement the residential neighborhoods that are located to the north 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 the current agricultural land use to the east is zoned for residential, and the current

agricultural land use to the south is zoned for light industrial, and land to the west is unincorporated county land within the City's UDB and designated by the City for open space/agriculture. 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 designed Farmland to a 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following analysis is based on the Air Quality, Greenhouse Gas, and Energy Assessment available in Appendix A to this report, and the Health Risk Assessment prepared by Core Environmental Consulting, 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 (PM_{2.5}), 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 (NO_x) are not classified as criteria pollutants. However, ROGs and NO_x are widely emitted from land development projects and participate in photochemical reactions in the atmosphere to form O₃; therefore, NO_x 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 (NO_x) that occur in the presence of sunlight. ROG and NO_x 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 PM_{2.5} NAAQS. EPA designated the Valley as nonattainment for the 2006 PM_{2.5} 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 PM_{2.5}) 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 8.56 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 ($\mu\text{g}/\text{m}^3$)	--	129.2	48.3	42.9
		Days > National 24-Hour Standard	--	46.6	18.5	6.1
	Annual	Annual average Concentration ($\mu\text{g}/\text{m}^3$)	12 $\mu\text{g}/\text{m}^3$	16.6	16.1	13.5
PM 10	24-Hour	Max 24 Hour Average Concentration ($\mu\text{g}/\text{m}^3$)	50 $\mu\text{g}/\text{m}^3$	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 ($\mu\text{g}/\text{m}^3$)	20 $\mu\text{g}/\text{m}^3$	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 (O3)	1 Hour	0.09 ppm (180 µg/m³)	--	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m³)	0.075 ppm (147 µg/m³)	
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m	150 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m3	--	
Fine Particulate Matter (PM2.5)	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 (NO2) 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 3-3. 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 effects 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 PM₁₀ 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.

Discussion

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 this 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 NO_x 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: 228 dwelling units (D.U.s), 57.31 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 standard (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 Lekkerkerker Property can be found in Appendix A.

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. As shown in Table 3-6 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 5 years (2025–2030). Default CalEEMod values were used for off-road equipment

estimations, 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 ROG, NOx, CO, PM10, and PM2.5.

The application of architectural coatings, such as exterior application/interior paint and other finishes, and of asphalt pavement would also produce ROG emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SJVAPCD's Rule 4601 (Architectural Coatings) and limit the amount of ROG emissions from cutback asphalt in compliance with the requirements of SJVAPCD's Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). 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 presents the estimated emissions generated during construction 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	1.30	1.40	<.005	1.09	0.39	0.17
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 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 trips during the operational phase. For area sources of emissions under the operational phase, default values were used for all inputs except for the “Hearths” and “Energy” sections. Under the “Hearths” section, all values for woodstoves, gas powered fireplaces, propane-powered fireplaces, wood-powered fireplaces were set to zero. The proposed Project will not utilize any natural gas sources, so if there are fireplaces, they will utilize electricity as the power source. To account for the exclusion of natural gas as an energy source for Project operations, the natural gas output was set to zero in the “Energy” section of the CalEEMod tool. 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 228 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 is provided in Appendix A.

As shown in Table 3-7 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	1.32	2.00	<.005	.14	.06	.02
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 Operational Emissions Compared to SJVAPCD Thresholds of Significance; Sources: SJVAPCD, CalEEMod Analysis (Appendix A)

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 would 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 would exceed thresholds established by the SJVAPCD. The Project would comply with all applicable SJVAPCD rules and regulations, which would 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 would 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: This discussion is partially based on the Health Risk Assessment (HRA) prepared by Core Environmental Consulting, which can be found 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. The nearest sensitive receptors include residences adjacent to the north side of the Project site, approximately 20 meters from the expected construction boundary. The highest risk exposure occurred at receptor 1, near the middle of the southern-most row of adjacent residential receptors.

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. The Health Risk Screening tool used by the SJVAPCD is based on guidelines

and methodologies developed by the California Office of Environmental Health Hazard Assessment (OEHHA) and the California Air Resources Board (CARB), and the basis of risk is based on DPM emissions occurring during the operational lifespan of a residential project. Therefore, the estimated exposure to DPM is approximately 70 years, which reflects an average human lifespan. However, DPM would only be released during the 5-year construction phase, so significant health impacts to sensitive receptors are unlikely.

Risk	Carcinogen (max risk in one million)	Chronic Hazard Index
Construction	11	n/a
SJVAPCD Thresholds of Significance	20	1
*Calculation based on mitigated emissions. See Appendix B.		

Table 3-8. HRA Results Compared to SJVAPCD Thresholds of Significance

Construction risk would be below the SJVAPCD Thresholds of Significance. 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 a *less than significant impact*.

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 (NO_x, CO, VOCs, PM), and landscape maintenance (if natural gas is used).

Since the release of toxic air contaminants (TACs) would be limited to the short-term construction phase of three years, the impact to sensitive receptors is deemed *less than significant*.

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 Question C, the Project is adjacent to sensitive receptors to the north, which may be temporarily affected by such odors. The western, eastern, and southern portions of the Project site is separated by large parcels of agricultural land. Due to this, odors would 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*.

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The following analysis is based on the Biological Evaluation prepared for the Project by Live Oak Associates in August 2024. The Site was surveyed on July 24, 2024, 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 consists of an almond (*Prunus amygdalus*) orchard with associated agricultural infrastructure that includes dirt roads, a fenced well enclosure, and a few feet of an irrigation ditch in the northwest corner. Analysis of aerial imagery indicates that the Project site has historically been used for agricultural purposes.

The Project site is relatively flat with an elevation of approximately 260 feet National Geodetic Vertical Datum (NGVD). Soils of the Project Site comprise Nord fine sandy loam, 0 to 2 percent slopes and Colpien loam, 0 to 2 percent slopes. Neither soil is considered hydric, meaning they do 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 would have no particular significance to biological resources of the site.

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 with Mitigation Incorporated: The following analysis is based on the Biological Evaluation prepared for the Project by Live Oak Associates in August 2024 (see Appendix C). On July 24, 2024, 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, 14 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 agricultural use, surrounding urban areas, and its location outside the typical distribution range of these species. Among these 14 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.
- 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 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 four special-status animal species that may occur on the Project Site are:

- Loggerhead Shrike (*Lanius ludovicianus*): This species has been repeatedly documented at the nearby wastewater treatment facility. 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.

- Swainson's Hawk (*Buteo swainsonii*): The Project Site lacks suitable nesting and foraging habitat for Swainson's Hawk, so the species is not expected to occur on-site. However, they have the potential to nest in the immediate vicinity. They are well-documented in the area, with 30 CNDDDB nesting occurrences within 10 miles—the closest being just 1 mile to the southeast—and over 50 eBird sightings in the same area.
- 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.

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 (Swainson's Hawk and Loggerhead Shrike): The Biological Evaluation concluded that these species are not expected to be adversely affected by the Project-related loss of habitat. Swainson's Hawks are unlikely to utilize the Site due to the absence of suitable nesting and foraging 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 the California Environmental Quality Act 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 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 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. 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 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. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following analysis is based on the Cultural Resources Technical Memorandum prepared for the Project by Taylored Archaeology in July 2024. 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.

The cultural records search included a half-mile radius around the Project area. Three previous cultural resources reports were identified within the Project area, including an archaeological literature review, a book on the 1851 Mariposa War, and a Phase I archaeological survey report, none of which overlapped with the Project Site. Additionally, four reports were identified within a half-mile radius, all with negative findings.

Five cultural resources were previously recorded within a half-mile radius of the Project area. Four resources, all historic era, are more than a quarter mile outside the Project boundary. One resource, a segment of the Tulare Canal (P-54-005296), is located 80 feet south of the Project Site across W. Paige Avenue. 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 September 19, 2024, 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 October 19, 2024. 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. *Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.*
2. *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; 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 descendant, 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 review of the record search results indicates no prior surveys were conducted within, nor cultural resources recorded within, the Project boundary. Five historic-era cultural resources were recorded within a half-mile radius of the Project boundary. None of these resources would be impacted by the Project. Archival research of available historical topographic maps and aerial photographs of the Project Site identified the Project Site as being utilized for agricultural purposes for the past century. While rural residences and outbuildings were previously present on the Project Site, all buildings appear to have been demolished and removed since at least 1984. The one structure on the Project Site, which is the well site in the northern central portion of the Project, was constructed circa 2009. 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: No archaeological resources are known to occur at the Project Site. 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: 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 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 Lekkerkerker 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).

Regulatory Setting

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. 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 E.

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 228 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 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 3-9, 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	
86,238	11,987	66,585	9,255	22,137	2,570	23,812
Total Construction Energy Use						23,812
Average Annual Construction Energy Use						15,875

Table 3-9. On & Off-Road Mobile Fuel Use Generated by Construction Activities, Sources: CalEEMod (v.2022.1.1); EMFAC2017 (See Appendix E)

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	220,939	26,576
	Diesel	34,011	4,673
Electricity Use	kWh/Year		Total MMBTU
	1,310,282		4,471
Total Operational Energy Use			Total MMBTU
			35,719

Table 3-10. 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 3-10, annual energy use associated with Project operations would total approximately 15,875 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.

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, there would be *no impact*.

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or Site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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:

- **Nord fine sandy loam, 0 to 2 percent slopes:** The Nord series consists of very deep, well drained soils formed primarily from granitic and sedimentary rocks. The Nord series is a member of a coarse-loamy, mixed, superactive, thermic cumulic Haploxerolls taxonomic class and are found in flood plains and alluvial fans.



Figure 3-3: Soils Map

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 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 Nord fine Sandy Loam which does not contain soils 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 a temporary basin located near the northeastern corner of the Project Site and eventually into a conveyed off-site into an existing stormwater conveyance system. Since 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 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. Since 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 to use 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 to 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 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.

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 3-11.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Methane (CH ₄)	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 (CO ₂)	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 and 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 (N ₂ O)	Commonly known as laughing gas, is a chemical compound with the formula N ₂ O. 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 3-11. 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 policies 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 3-12. 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 (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF ₆) 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 3-13. 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 3-14. 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 3-15. Regional Greenhouse Gas Regulations

Thresholds and Methodology

The impact analysis provided is based on the application of the following 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 would 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.

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 would create a maximum of 290 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: 873 metric tons per year
- CH₄: 2.44 metric tons per year
- N₂O: 0.03 metric tons per year
- CO₂e: 944 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 would 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 228 units, leading to an estimated population of:

$$228 \text{ units} \times 3.32 \text{ persons/household} = 757 \text{ people}$$

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

$$757 \text{ people} \times 4.02 \text{ MT CO}_2\text{e/yr/capita} = 3,043 \text{ metric tons of CO}_2\text{e per year.}$$

The total operational GHG emissions amount to 944 metric tons of CO₂e per year. Since the Project's emissions are below the efficiency-based threshold for residential projects (3,043

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 would 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 3-16 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: <i>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%.</i>	<i>Consistent.</i> This Project plans to adhere to all energy conservation codes by implementing passive heating and cooling opportunities in subdivision design.
Renewable Energy For Residents: <i>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.</i>	<i>Consistent.</i> 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: <i>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.</i>	<i>Consistent.</i> The proposed low-density residential development would 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 would comply with the City of Tulare's Water Efficient Landscape Ordinance (CHAPTER 10.196: LANDSCAPING).
Alternative Modes of Transportation	
Increase Transportation-Related Bicycle Trips: <i>Implement the Tulare County 2010</i>	<i>Consistent.</i> The Project includes a Class I bike path on West Paige Avenue in consistency with the plans set forth in the

<i>Regional Bicycle and Transportation Plan within the city.</i>	Tulare County 2010 Regional Bicycle and Transportation Plan.
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Table 3-16. 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. Therefore, the impacts would be *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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The following analysis is partially based on the findings of the Phase I Environmental Site Assessment prepared for the Project by Paul Humphrey, EP, dated June 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 Krazan & Associates, dated October 2024, which is available in Appendix F to this report.

Environmental Setting

The Project Site is approximately 0.65 miles south of the nearest school, Countryside High School, located at 1084 S. Pratt Street. It is approximately 1.85-mile northwest of the nearest public airport, Mefford Field Airport. The nearest private airport, SCE San Joaquin Heliport, is located 0.98 mile to the east.

Information from standard federal and state environmental record sources was used to research the Project Site, including county and City databases as well as the California Department of Toxic Substances Control (DTSC) EnviroStor database and the State Water Resources Control Board (SWRCB) GeoTracker database to identify any sites associated with the release of hazardous materials or wastes within the Project area. No current or historical hazardous substances or petroleum products are known to occur at or around the Project Site and no record of a hazardous spill or leak is associated with the Project Site or surrounding area. While not a recognized environmental condition, 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.

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.

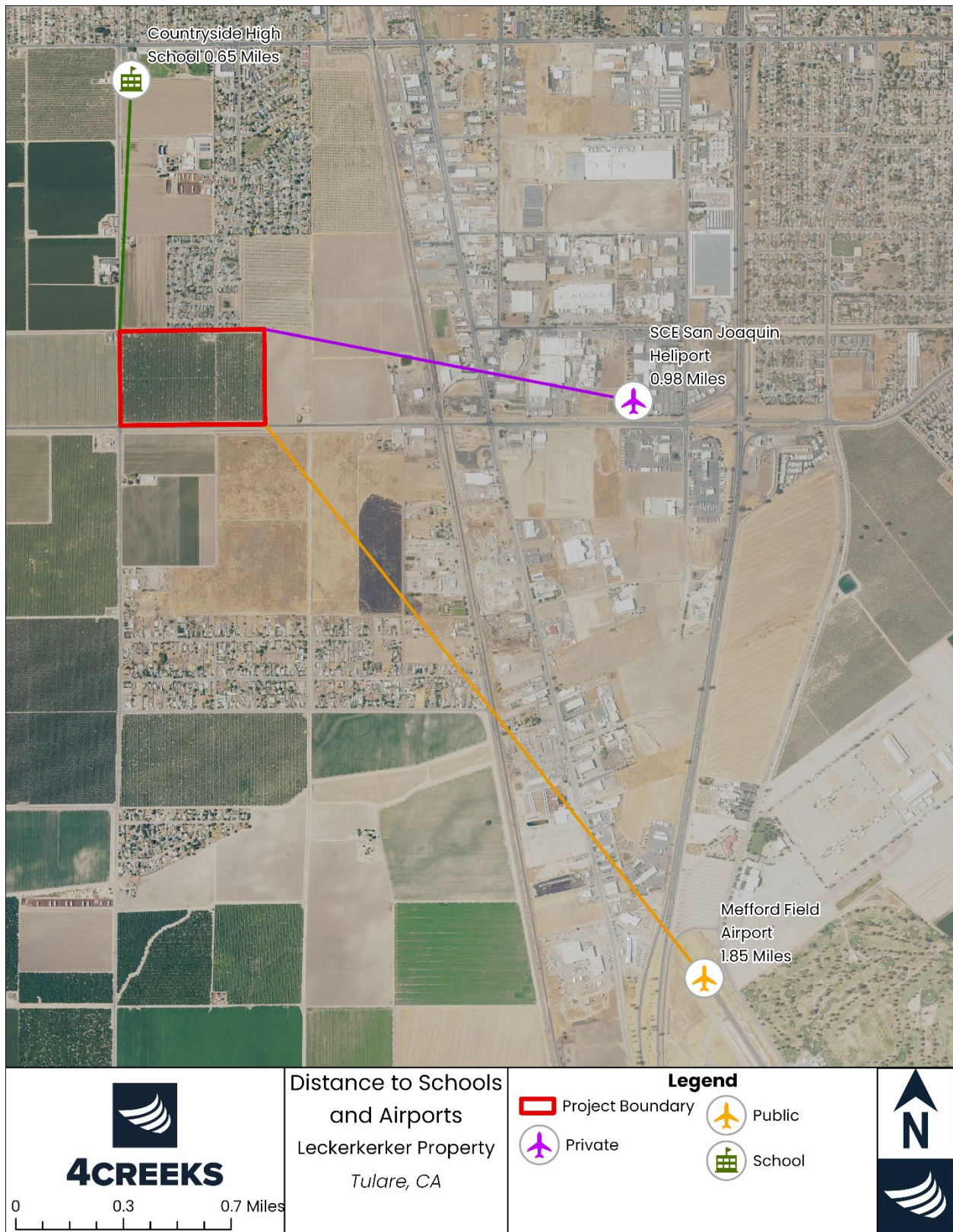


Figure 3-4: Distance to Schools and Airports

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.

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 to 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 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: Project operations would not emit hazardous emissions or handle hazardous materials, substances, or wastes, and the Project is not within one-quarter mile of an existing or proposed school. The nearest school is over a quarter mile away and the Project would not emit hazardous emissions or involve handling acutely hazardous materials or waste. Therefore, *no impact* would occur.

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 within two miles from the Mefford Field Airport but is not located within its 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. Therefore, the impacts would be *less than significant*.

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones risk the release of pollutants due to Project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater movement plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 Project Site is situated within the San Joaquin Valley Groundwater Basin, which is divided into seven sub-basins. The Project 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 would initially include a temporary basin near the northeastern corner of the Project Site and eventually would convey stormwater off-site into a larger stormwater drainage system.

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 an NPDES Permit and 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-PI.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 57.31-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 57.31-acre Project Site is expected to use approximately 137,544 gallons per day, equating to around 50 MG annually. This addition would have a minimal effect on the projected water usage, increasing the total to 6,305 MG in 2025 (a 0.8% increase), 6,471 MG in 2030 (a 0.8% increase), and 6,960 MG in 2035 (a 0.7% increase). These projected 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, pervious Project Site due to increased paved and impervious surfaces that would result from the Project. However, all stormwaters would be initially redirected to a temporary basin near the northeaster corner of the Project Site and eventually off-site into a larger stormwater drainage conveyance system where the stormwater would be able to be utilized in groundwater recharge programs. Although the Project would use groundwater for domestic purposes, the amount is not considered significant and would not substantially lower the aquifer's groundwater table or interfere with its recharge. 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 Project involves the construction and operation of 228 low-density residential units on approximately 57.31 gross acres. While building these units may alter drainage patterns compared to the existing undeveloped condition, the Project is not expected to result in substantial erosion or siltation on or off the Project Site. A SWPPP would 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 impacts 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 off-site?

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, all stormwater runoff would initially be routed and contained in an on-site temporary basin and eventually off-site into a larger stormwater drainage conveyance network. The applicant would be required to provide appropriate stormwater management measures, ensuring that there would not be substantial flooding on or off the Project Site. Therefore, through regulatory compliance, the Project's impacts would be *less than significant*.

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 Project includes the construction and operation of 228 single-family residential homes on 57.31 acres. New impervious surfaces, such as roads and driveways, would 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 Project Site, there would be a rise in pollutants in surface runoff, potentially leading to an increase in point source and non-point source pollution from the Project. However, the Project, being a residential development, is not expected to cause substantial degradation of water quality. Even so, to further reduce potential water quality impacts, the Project would implement Mitigation Measure HYD-3, which requires the preparation of a Development Maintenance Manual. This manual would 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*.

iv. Impede or redirect flood flows?

No Impact: The Project Site is generally flat, so no significant earthwork of leveling slopes would be required. The Project Site is not in proximity to any streams or rivers and would 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, *no impact* would occur.

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 not near an ocean or large body of water; 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project Site is in the southern area of the City. According to the General Plan, the Project Site is designated for low density residential. The City has zoned the Project Site for single-family residential with a 5,000-square-foot minimum lot size (R-1-5) and 6,000-square-foot minimum lot size (R-1-6). The Project proposes to subdivide the 57.31-acre Project Site for 228 single-family residential homes, and associated infrastructure improvements. The Project's residential development would complement the existing residential area to the north, and contribute toward the supply for housing within the City and region.

Regulatory Setting

City of Tulare General Plan: The Project Site is designated for low density residential. Low Density Residential establishes areas for single-family residences in a suburban configuration. This designation typically has a density range of 3.1-7 dwelling unit per 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.

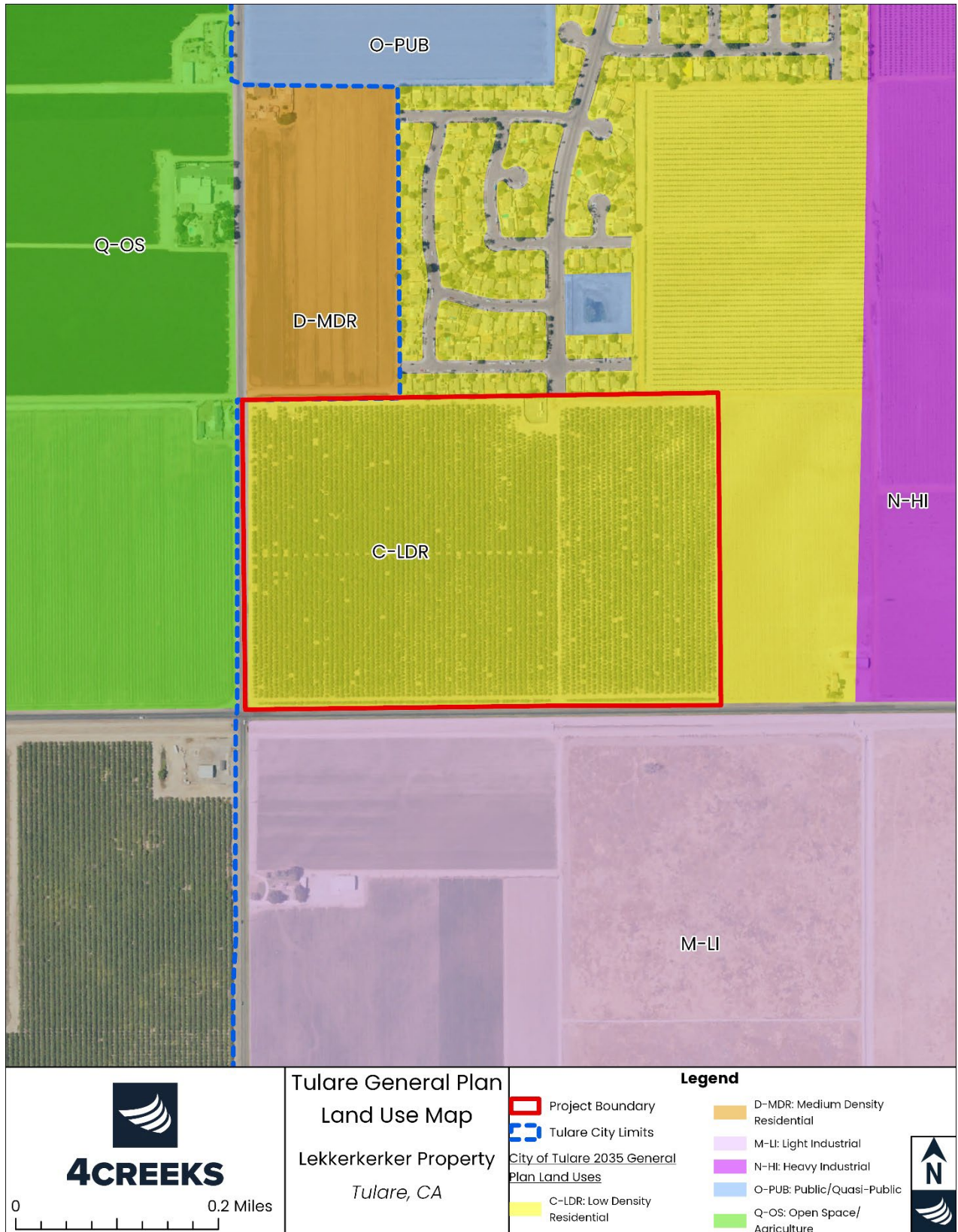


Figure 3-5: General Plan Land Use Map

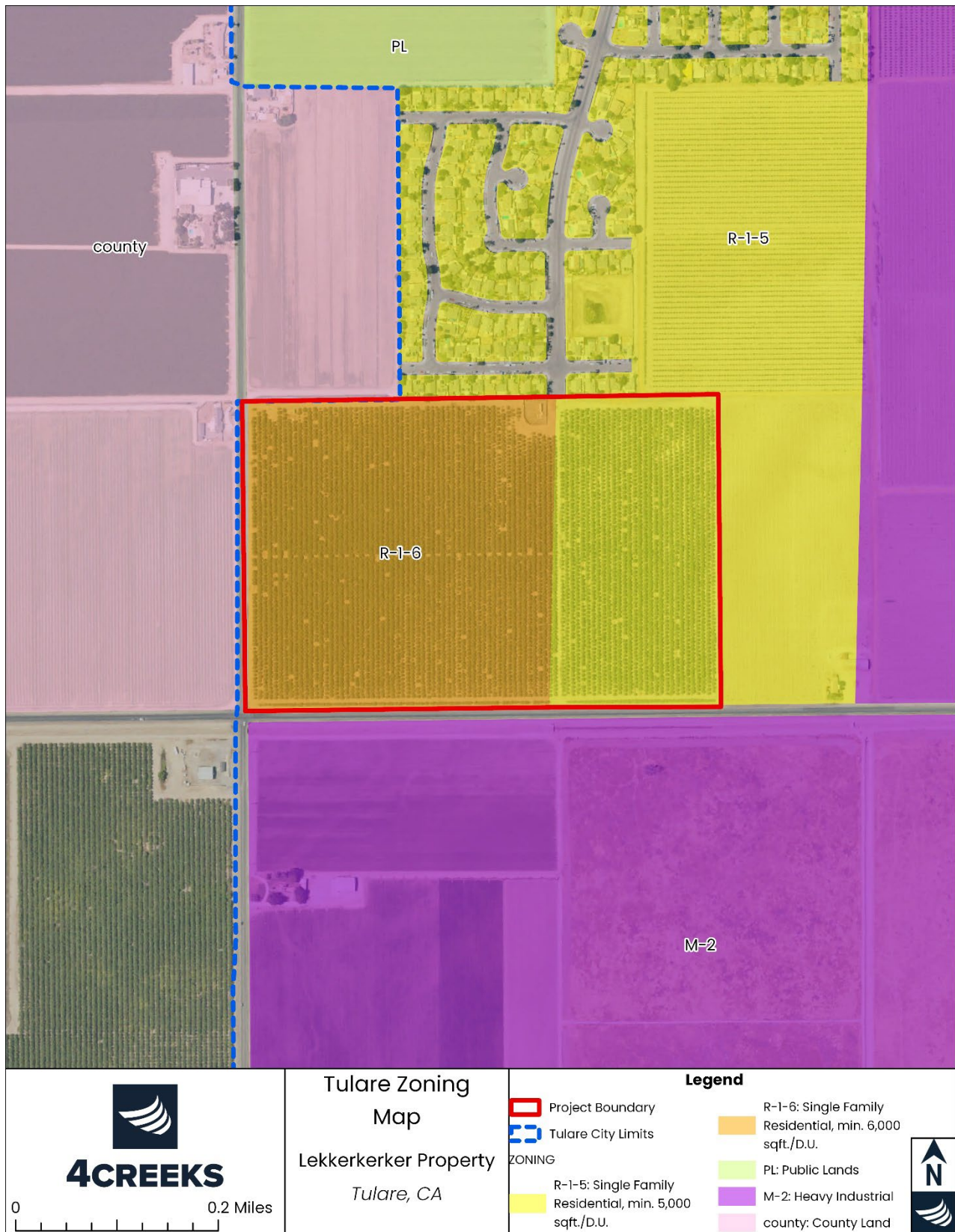


Figure 3-6: City of Tulare Zoning Map

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 an agricultural land use. The Project would complement the existing neighborhood to the north 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?

Less Than Significant Impact: The Project would construct 228 single-family residential units within the approximately 57.31-acre Project Site. As illustrated in Figure 3-5 and Figure 3-6, above, the Project Site is zoned and designated by the General Plan for single-family residential uses. The Project is consistent with the underlying zoning and General Plan land use designation and would also comply with subdivision and zoning regulations. As such, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

There are no mineral resource zones in Tulare County and there is no mineral extraction occurring on or adjacent to the 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.

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 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. As such, the Project would not result in the loss or impede the mining of regionally or locally important mineral resources. Therefore, *no impact* would occur.

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 as an important mineral resource recovery site. A such, the Project would not result in the loss of availability of known regionally or locally important mineral resources. Therefore, *no impact* would occur.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground-borne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The predominant existing noise sources in the vicinity of the Project Site are vehicles on adjacent streets and equipment noise associated with agricultural operations. A public airport, Mefford Field Airport, is located approximately 1.85 miles from 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.

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-PI.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-PI.6 Limiting Construction Activities. The City shall limit construction activities to the hours of 6 am to 10 pm, Monday through Saturday.
- NOI-PI.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).

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: Project construction is anticipated to last approximately five years (2025–2030) and would involve temporary noise sources. The average noise levels generated by construction equipment that would be used for the 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 3-17. 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 would comply with these regulations, and construction would 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. Because noise generated from construction would be temporary, construction activities would comply with all measures established by the City to limit construction related noise impacts, and operational noise would be consistent with adjacent land uses, the impact is considered to be *less than significant*.

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. Therefore, impacts are considered to 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 1.85 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*.

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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The United States Census Bureau reported that the population of the City of Tulare was 70,693 persons in 2022. This marks an increase from the 2010 census, which recorded a population of 59,275 persons, representing a growth of approximately 19.3 percent 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. The City's 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 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 228 single-family residential dwelling units on 57.31 acres. According to the Census, the City's average household size is 3.52 persons. Based on this average household size, the anticipated population increase because of the Project is approximately 803 persons (228 units × 3.52 persons per unit). This increase would represent about a 1.1 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 zoning and 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 (i.e., S. Pratt Street and W. Paige Avenue) as well as provide roadway interconnectivity with the existing single-family development to the north 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: The Project Site is currently an agricultural land use and proposes to subdivide 57.31 acres for the construction and operation of 228 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Fire: The Project Site is served by the City of Tulare Fire Department. The nearest fire station is the Tulare Westside Fire Station, located approximately 1.4 miles north of the Project Site. With this proximity, the fire department can maintain efficient response times to the new residential development. The Project would 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 1.5 miles northeast 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 Union High School is approximately 1.6 miles northeast of the Project

Site. Roosevelt Elementary School is about 1.1 miles northwest, and Mulcahy Middle School is approximately 0.9 miles northwest.

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 would provide fire protection services to the Project. The closest fire station is the Tulare Westside Fire Station, located approximately 1.4 miles north of the Project Site. The addition of 228 residential units would increase the demand for fire protection services. This increase in service demand would be compensated by a per-dwelling-unit development impact fee. This fee is intended to support and expand, when needed, 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 to 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 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 would provide services to the Project. The Tulare Police Department headquarters is located approximately 1.5 miles northeast of the Project Site. The addition of 228 residential units would 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 228 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 3.52 persons, and assuming a standard student generation rate, the Project would 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 be 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 228 new residential units would result in increased use of existing parks. The City's General Plan states that new residential development may be required to provide additional parkland or pay in-lieu fees to ensure adequate recreational spaces for residents. The City has adopted a Quimby Act fee, and this development will be required to pay these fees. The Project does not propose on-site parkland, and as such, would be subject to pay in-lieu fees to the City for the upkeep and expansion, when needed, of parks and recreational amenities. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

There are 20 parks that are owned and operated by the City. Parkwood Meadows Park is the closest recreational area to the Project Site and is located approximately 0.4 miles north 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 228 new single-family residences from the Project would result in an estimated population increase of approximately 803 residents (228 units × 3.52 persons per unit, based on the City's average household size). According to the City's standard of providing 4 acres of developed parkland per 1,000 residents, the Project should contribute approximately 3.2 acres of parkland to adequately serve the new population (803 residents / 1,000 residents × 4 acres = 3.2 acres).

The Project does not propose on-site parkland. The Project would be required to pay in-lieu fees as stipulated by the General Plan. These development impact fees contribute to the maintenance and expansion of public parks and recreational facilities throughout the City. By contributing financially to the City's park system, the Project would help offset potential impacts on existing parks. Furthermore, nearby parks such as Parkwood Meadows Park are within a reasonable distance from the Project Site and have the capacity to accommodate additional users without substantial deterioration. Therefore, with adherence to City requirements for parkland in-lieu fees, the impact on recreational facilities would be 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 Project does not include recreational facilities and would not increase environmental impacts beyond those associated with the Project. Therefore, the impact on recreational facilities would be considered *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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with the CEQA guidelines Section 15064.3, Subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The following analysis is based on the Transportation Impact Study prepared for the Project by VRPA Technologies, dated October 2024, which is available in Appendix G 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 Site would be provided via S. Pratt Street to the west, W. Paige Avenue to the south, and S. E Street to the north.

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: W. Paige Avenue would be upgraded to include a Class 1 bike path. Sidewalks along internal residential streets would connect to existing and future sidewalks to the north and south. These features would provide connectivity for pedestrians and cyclists within the Project area and offsite.

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 15152.

- (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 15151 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 would meet applicable standards and policies.

According to the Transportation Impact Study (Appendix G), prepared for the Project by VRPA Technologies, the Project would maintain an acceptable LOS D at nearby intersections and roadways, consistent with Policy TR-P2.3 of the General Plan. The surrounding street system, including S. Pratt Street and S. E Street, would continue to meet the LOS D standard during both the opening year and five-year horizon scenarios. 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 two driveways on S. Pratt Street and two access points along S. E Street, including from W. Paige Avenue, 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.

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 Transportation Impact Study, 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.

Although the project is located in a TAZ with unusually high VMT, this amount is attributed to modeling aberrations caused by limited development, which skews the data. To correct this amount, the average trip length of the Project's TAZ and adjacent TAZs was calculated. The average trip length was found to be 9.13 miles, below the threshold of 9.76 miles set by the City for low VMT areas. Therefore, the Project qualifies as being in a low VMT area, and no further VMT analysis is required.

The Transportation Impact Study 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 W. Paige Avenue (via S. E Street). 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

The previously discussed cultural records search (available in Appendix D) included a half-mile radius around the Project area. Three previous cultural resources reports were identified within the Project area, including an archaeological literature review, a book on the 1851 Mariposa War, and a Phase I archaeological survey report, none of which overlapped with the Project Site. Additionally, four reports were identified within a half-mile radius, all with negative findings.

Five cultural resources were previously recorded within a half-mile radius of the Project area. Four resources, all historic era, are more than a quarter mile outside the Project boundary. One resource, a segment of the Tulare Canal (P-54-005296), is located 80 feet south of the Project Site across W. Paige Avenue.

Tribal Consultation

In compliance with AB 52, the Santa Rosa Rancheria Tachi Yokut Tribe was sent a letter via email on September 19, 2024, inviting the tribe to consult with the City regarding the Project. A copy of the letter is available in Appendix H to this report. The 30-day response window closed on October 19, 2024. 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 California 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

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

Wastewater: Wastewater would be collected and treated at the City's wastewater treatment facility, which is located at the intersection Paige Avenue and West Street.

Solid Waste: Solid waste collection service is provided by the City of Tulare Solid Waste Division. Solid waste disposal would 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 would be provided by the City of Tulare. The City's primary water source is groundwater. Existing water entitlements currently provide water to the Project Site.

Stormwater: The City is currently in an agreement with Tulare Irrigation District (TID). The City pumps stormwater into canals owned by TID.

Electric Power: Southern California Edison (SCE) would provide electricity to the Project.

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 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 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 would require the extension of existing utility services to the proposed lots on the Project Site, including water, wastewater, electric power, and telecommunications connections as well as connecting to a stormwater drainage system

- Water: The Project would tie into an existing 12-inch diameter pipeline in S. E Street.
- Wastewater: The Project would tie into an existing 10-inch diameter pipeline in S. E Street or an existing 27-inch diameter pipeline in W. Paige Avenue.
- Stormwater Drainage: Stormwater would initially be conveyed to a temporary on-site basin to be constructed near the northeast corner of the Project Site at lots 6 through 13 before eventually connecting into a larger stormwater system to convey the stormwater off site.
- Electric Power: SCE would provide electric power through connections to existing facilities from the development directly north of the Project Site.
- Telecommunications: Telecommunications facilities will connect to existing AT&T infrastructure in the area.

Construction activities related to these utility extensions are not anticipated to cause significant environmental effects. The work would occur within existing rights-of-way and would be integrated into the overall Project construction plan to minimize environmental impacts. BMPs, such as erosion control measures and proper waste management, would be implemented during construction to reduce potential environmental impacts. 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 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 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 on a 57.31-acre Site, it is expected to use approximately 137,544 gallons per day, equating to around 50 MG annually. This addition would have a minimal effect on the projected water usage, increasing the total to 6,305 MG in 2025 (a 0.8% increase), 6,471 MG in 2030 (a 0.8% increase), and 6,960 MG in 2035 (a 0.7% increase). These increases indicate a negligible impact on the City's overall water supply projections.

While the Project would result in reduced percolation to the groundwater basin compared to the existing vacant Project Site due to increased paved and impervious surfaces, all stormwater would be redirected to an on-site temporary basin near the northeast corner of the Project Site at lots 6 through 13 before eventually connecting into a larger stormwater system to convey the stormwater off site.

Additionally, 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.

The Project would 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. Therefore, impacts would be *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 would be collected and treated at the City's wastewater treatment facility located at the intersection of Paige Avenue and West Street. Although the addition of 228 single-family residences would increase the volume of wastewater requiring treatment, the Tulare Municipal Service Review indicates that the wastewater treatment facility has adequate capacity to accommodate new developments within the City. The facility is designed to serve and accommodate demand within the City's growth boundary, and this Project is within the existing City limits. 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 would be provided by the City of Tulare Solid Waste Division, with disposal managed by the Tulare County Solid Waste Department. The addition of 228 single-family residences would 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 would comply with all applicable solid waste reduction statutes and regulations, including implementing recycling programs and encouraging waste reduction practices among residents. Therefore, impacts would be *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 would comply with all applicable federal, state, and local statutes and regulations related to solid waste management and reduction. Solid waste collection and disposal would be conducted in accordance with the policies of the City of Tulare and Tulare County Solid Waste Department. The Project would 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 within 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 228 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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, 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, and HYD-3, 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 this 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 Lekkerkerker Property 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.

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
<p>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.</p>	Project Applicant	Ongoing During Construction	City of Tulare	
<p>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:</p> <ul style="list-style-type: none"> 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	
<p>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.</p>	Project Applicant	Pre-Construction	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
<p>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:</p> <ul style="list-style-type: none"> • 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. 	Project Applicant	Pre-Construction	City of Tulare	
<p>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:</p> <ul style="list-style-type: none"> • Runoff shall be directed away from trash and loading dock areas; • Bins shall be lined or otherwise constructed to reduce leaking of liquid wastes; 	Project Applicant	Pre-Construction	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
<ul style="list-style-type: none"> • 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. 				

3.7 Supporting Information and Sources

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<https://www.tulare.ca.gov/home/showpublisheddocument/2393/63590718585200000>
2. **2035 The City of Tulare General Plan.** Available at:
<https://www.tulare.ca.gov/home/showpublisheddocument/266/63566681590043000>
3. **City of Tulare Development Code.** Available at:
<https://codelibrary.amlegal.com/codes/tulare/latest/overview>
4. **2024 CEQA Statute & Guidelines.** Available at:
https://www.califaep.org/docs/2024_CEQA_Statute_and_Guidelines_Handbook.pdf

Aesthetics

5. **Caltrans State Scenic Highways.** Available at:
<https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa>

Agriculture and Forestry Resources

6. **California Department of Conservation Farmland Mapping and Monitoring Program.** Available at: <https://www.conservation.ca.gov/dlrp/fmmp>

Air Quality

7. **SJVAPCD Rules and Regulations.** Available at:
<https://www.valleyair.org/rules/1ruleslist.htm>
8. **SJVAPCD Ambient Air Quality Standards & Valley Attainment Status.** Available at:
<https://ww2.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainmnet-status/>
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12. **CARB 2022a. Scoping Plan for Achieving Carbon Neutrality.** Available at:
<https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>
13. **CARB 2022b. State and Federal Area Designations.** Available at:
<https://ww2.arb.ca.gov/our-work/programs/state-and-federal-area-designations>
14. **CARB. Common Air Pollutants.** Available at:
<https://ww2.arb.ca.gov/resources/common-air-pollutants?corr>

15. **CARB. Air Quality Data Statistics.** Available at:
<https://www.arb.ca.gov/adam/topfour/topfour1.php>

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17. **Calflora. 2024. Calflora: An online database of plant identification and distribution [web application]. Calflora, Berkeley, California.** Available at:
<http://www.calflora.org>.
18. **California Natural Diversity Database. BIOS 6.0 and Rarefind 5.0.** Available at:
<https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>
19. **2002. California Fish and Game Code. Gould Publications. Binghamton, NY.**
20. **California Native Plant Society. 2024. Inventory of Rare and Endangered Vascular Plants of California.** Available at: <http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi>.
21. **California Soil Resource Lab. 2008. Streaming, seamless interface to USDA-NCSS SSURGO and STATSGO Soil Survey Products.**
22. **eBird. 2024. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York.** Available:
<http://www.ebird.org>.
23. **Historic Aerials. 2024. Nationwide Environmental Title Research, LLC.** Available at:
<https://www.historicaerials.com/about-us>
24. **iNaturalist. 2024.** Available at: <https://www.inaturalist.org/>
25. **Jepson Flora Project (eds.) 2024. Jepson eFlora,** Available at:
<https://ucjeps.berkeley.edu/eflora/>
26. **Nafis, G. 2024. California Herps – A Guide to the Amphibians and Reptiles of California.** Available at: <http://www.californiaherps.com/>
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<https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range>.

Cultural Resources

30. **California Health and Safety Code Section 7050.5.** Available at:
https://california.public.law/codes/ca_health_and_safety_code_section_7050.5#:~:q=California%20Health%20and%20Safety%20Code%20Sec.%207050.5%20%28a%29,in%20Section%205097.99%20of%20the%20Public%20Resources%20Code
31. **California Register of Historical Resources.** Available at:
https://ohp.parks.ca.gov/?page_id=21238

32. **National Register of Historic Places.** Available at:
<https://www.nps.gov/subjects/nationalregister/index.htm>
33. **NETROnline.** *Historic Aerials.* Available Online at: <https://www.historicaerials.com/>
34. **Office of Historic Preservation.** Available at: <https://ohp.parks.ca.gov/>
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Appendix A

Air Quality/GHG/ Energy Assessment

October 2024

Lekkerkerker Subdivision **Air Quality/GHG/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 Leckerkerker Property (Project) in Tulare, CA. The Project proposes 228 units of Low-Density Residential development on two parcels totaling 57.31 acres. The Project proposes to construct single-family residential homes in the southwestern portion of the City of Tulare as well as a Class I bike path along the southern edge of the site along West Paige Avenue. 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 57.31 acres in the southwestern portion of the City of Tulare, California. The site is generally bound by two arterial streets, South Pratt Street to the west and West Paige Avenue to the south, with South E Street providing internal access through the center of the site. However, much of the northern and eastern boundary of the Project site is bound by agricultural farmland with a low-density residential neighborhood also bordering the site to the north. The site is comprised of two parcels: APN 174-030-009 and 174-030-010. APN 174-030-009 is 19.2 acres consisting of agricultural uses, mainly nut trees and dirt access roads. APN 174-030-010 is 38.11 acres consisting of agricultural uses, also mainly nut trees and dirt access roads, but includes a groundwater well that supplies water to Tulare.

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. The proposed Project site is in a developing area of the City of Tulare, with single-family residential homes located to the north, and agricultural uses located in all other directions from the site. However, to the south of the site is land that has been designated for light industrial operations by the General Plan. The closest school site, Countryside High School, is approximately 0.85 miles north 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 (PM_{2.5}), 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 (NO_x) are not classified as criteria pollutants. However, ROGs and NO_x are widely emitted from land development projects and participate in photochemical reactions in the atmosphere to form O₃; therefore, NO_x 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 (NO_x) that occur in the presence of sunlight. ROG and NO_x 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 PM_{2.5} NAAQS. EPA designated the Valley as nonattainment for the 2006 PM_{2.5} 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 8.88 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 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 ($\mu\text{g}/\text{m}^3$)	--	129.2	48.3	42.9
		Days > National 24-Hour Standard	--	46.6	18.5	6.1
	Annual	Annual average Concentration ($\mu\text{g}/\text{m}^3$)	12 $\mu\text{g}/\text{m}^3$	16.6	16.1	13.5
PM 10	24-Hour	Max 24 Hour Average Concentration ($\mu\text{g}/\text{m}^3$)	50 $\mu\text{g}/\text{m}^3$	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 ($\mu\text{g}/\text{m}^3$)	20 $\mu\text{g}/\text{m}^3$	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 (O3)	1 Hour	0.09 ppm (180 µg/m³)	--	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m³)	0.075 ppm (147 µg/m³)	
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m	150 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m3	--	
Fine Particulate Matter (PM2.5)	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 (NO2) 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: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; mg/m^3 = 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 effects 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 57.31 acres of nut trees within the City of Tulare, CA. There are no land uses at this site associated with air pollutant and odor emissions. As a result, the existing Project site does not generate criteria air pollutants from operation. The proposed Project site is to be developed with no natural gas usage; thus, this residential land use is not expected to be a source of a significant number of criteria pollutants.

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 PM₁₀ 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

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: 228 dwelling units (D.U.s), 57.31 Acres

CalEEMod default values were used to estimate construction duration, construction trips, equipment use, trip lengths, and solid waste generation. In order to account for recent changes to new residential building standard (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.

2.6 Project Impacts

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

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 4 and 5 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 5 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 5 years (2025–2030). Default CalEEMod values were used for off-road equipment estimations, 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 ROG, NOx, CO, PM10, and PM2.5.

The application of architectural coatings, such as exterior application/interior paint and other finishes, and of asphalt pavement would also produce ROG emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SJVAPCD's Rule 4601 (Architectural Coatings) and limit the amount of ROG emissions from cutback asphalt in compliance with the requirements of SJVAPCD's Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). 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 5 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	1.30	1.40	<.005	1.09	0.39	0.17

SJVAPCD Thresholds of Significance	100	10	27	10	15	15
*Threshold established by SJVAPCD for SO _x , however emissions are reported as SO ₂ by CalEEMod.						

Table 5. 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 trips during the operational phase. For area sources of emissions under the operational phase, default values were used for all inputs except for the “Hearths” and “Energy” sections. Under the “Hearths” section, all values for woodstoves, gas powered fireplaces, propane-powered fireplaces, wood-powered fireplaces were set to zero. The proposed Project will not utilize any natural gas sources, so if there are fireplaces, they will utilize electricity as the power source. To account for the exclusion of natural gas as an energy source for Project operations, the natural gas output was set to zero in the “Energy” section of the CalEEMod tool. 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 228 low -density residential homes. Operation of the Project would generate ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} 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 is provided in Attachment C.

As shown in Table 6 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	1.32	2.00	<.005	.14	.06	.02
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 Operational Emissions Compared to SJVAPCD Thresholds of Significance

Sources: SJVAPCD, CalEEMod Analysis (Attachment C)

As shown in Tables 5 and 6, 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 under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

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 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?

This discussion is partially based on the Health Risk Assessment (HRA) prepared by Core Environmental Consulting, which can be found in Attachment E.

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. Countryside High School is the nearest school and is located approximately 1 mile north of the Project site. The single-family homes located to the north may also be considered sensitive receptors that may be affected by pollutants produced during the Project's construction and operation. The closest sensitive receptors are the single-family homes that are immediately adjacent to the northernmost Project boundary.

During the construction phase the Project would produce diesel particulate matter (DPM), which has been classified as a carcinogen. Although DPM would be released during the construction phase, the levels would not exceed the Thresholds of Significance established by the SJVAPCD for TAC exposure. Core Environmental Consulting utilized the Health Risk Screening tool, which is based on guidelines and methodologies developed by the California Office of Environmental Health Hazard Assessment (OEHHA) and the California Air Resources Board (CARB). See Table 7 for the results of the HRA analysis for construction TAC emissions.

Risk	Carcinogen (Risk in One Million)	Acute Hazard Index	Chronic Hazard Index
Construction	11	N/A	N/A
Thresholds of Significance	20	1	1

Table 7. HRA Results Compared to SJVAPCD Thresholds of Significance

As shown in the Table above, construction risk would be below the SJVAPCD Thresholds of Significance. Therefore, consistent with the CEQA Guidelines, the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered less than significant.

Operational Phase. Once operational, diesel-fueled vehicle and equipment use would be minimal and would not result in a substantial health risk. The Project includes residential units and a city park; thus, there are no other substantial sources of TAC expected during construction or operation. Additional health risk could occur from the use of household cleaners, commercial products, landscaping equipment, and a number of other area sources; however, determining the use of such TAC sources would be highly speculative, and the health risk impact from these sources would be less than significant because existing federal, state, and local regulations are enforced for the composition, use, and disposal of these hazardous materials.

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. As shown in the Table above, construction would be below the SJVAPCD Thresholds of Significance, and operation will not result in TAC emissions. Therefore, consistent with the CEQA Guidelines, the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered *less than significant*.

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

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, which may be temporarily affected by such odors. The majority of the Project site is separated by large parcels of agricultural land, with only a very minor portion of the Project being adjacent to sensitive receptors. 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).

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 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 8.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Methane (CH ₄)	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 (CO ₂)	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.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
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.
Hydrofluorocarbons	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 and 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 (N ₂ O)	Commonly known as laughing gas, is a chemical compound with the formula N ₂ O. 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.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
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 8. 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 57.31 acres of orchards. Other features at the site include private dirt roads and a groundwater well. There are no land uses on the site associated with GHG emissions, aside from agricultural employee trips and agricultural equipment usage. Nut tree farms 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 17 individuals, which would have resulted in roughly 34 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 9 through 12 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 policies 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 9. 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 (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF ₆) 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	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

Sources: Electrical Utility Generating Units		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	<i>Yet to be formally adopted</i>	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 10. 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 11. 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.
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Table 12. 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 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.

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.*

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 290 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: 873 metric tons per year
- CH₄: 2.44 metric tons per year
- N₂O: 0.03 metric tons per year
- CO₂e: 944 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 228 units, leading to an estimated population of:

$$228 \text{ units} \times 3.32 \text{ persons/household} = 757 \text{ people}$$

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

$$757 \text{ people} \times 4.02 \text{ MT CO}_2\text{e/capita} = 3,043 \text{ metric tons of CO}_2\text{e per year.}$$

The total operational GHG emissions amount to 944 metric tons of CO₂e per year. Since the Project's emissions are below the efficiency-based threshold for residential projects (3,043 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?

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 13 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: <i>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%.</i>	<i>Consistent.</i> 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: <i>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.</i>	<i>Consistent.</i> 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: <i>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.</i>	<i>Consistent.</i> 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 Modes of Transportation	
Increase Transportation-Related Bicycle Trips: <i>Implement the Tulare County 2010</i>	<i>Consistent.</i> The Project includes a Class I bike path on West Paige Avenue in consistency

<i>Regional Bicycle and Transportation Plan within the city.</i>	with the plans set forth in the Tulare County 2010 Regional Bicycle and Transportation Plan.
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Table 13. 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 Lekkerkerker 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 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 57.31-acre Project site is currently under agricultural use and is occupied by orchards, a groundwater well, 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 with agricultural operations result 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 228 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 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). 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, fleet mix, 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.

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 228 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 D. 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 14, 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	
86,238	11,987	66,585	9,255	22,137	2,570	23,812
Total Construction Energy Use						23,812
Average Annual Construction Energy Use						15,875

Table 14. On & Off-Road Mobile Fuel Use Generated by Construction Activities

Sources: CalEEMod (v.2022.1.1); EMFAC2017 (See Attachment D)

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	220,939	26,576
	Diesel	34,011	4,673
Electricity Use	kWh/Year		Total MMBTU
	1,310,282		4,471
Total Operational Energy Use			Total MMBTU
			35,719

Table 15. On-Road Mobile Fuel Use and Electricity Use Generated by Operational Activities

Sources: CalEEMod (v. 2022.1.1); EMFAC2021 (See Attachment D)

As shown in Table 15, annual energy use associated with Project operations would total approximately 15,875 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 thresholds. Therefore, the Project's cumulative impacts with respect to such 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)

No mitigation measures are required.

Section 7 – Conclusions and Recommendations

Construction and operation of the proposed Project would result in criteria pollutant and GHG emissions, as well as an increase in energy use. However, 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 to air quality, greenhouse gas emissions and energy use from the proposed Project would be *less than significant*. Cumulative impacts related to air quality, greenhouse gas emissions and energy use would also remain *less than cumulatively significant*.

Section 8 – References

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Attachment A

Vicinity Map



4CREEKS



Vicinity Map
Lekkarkerker Property
Tulare, CA

Legend



Project Boundary
Tulare City Limits

0 0.07 0.15 0.3 Miles

Attachment B

Site Plan

LEKKERKERKER PROPERTY

TENTATIVE SUBDIVISION MAP

PREPARED FOR:

ARTEMIS, LLC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

PREPARED BY:

4CREEKS, INC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

ACREAGE

19.20 AC R-1-5 (50' x 100') 4.38 UNITS/AC
38.11 AC R-1-6 (60' x 100') 3.78 UNITS/AC

LEGEND

APN: 174030009, 174030010
ZONING: R-1-5 & R-1-6
GENERAL PLAN: LOW DENSITY RESIDENTIAL
FLOOD ZONE: X
ELECTRICITY: SOUTHERN CALIFORNIA EDISON
TELEPHONE: AT&T
NATURAL GAS: SOUTHERN CALIFORNIA GAS
EXISTING USE: FARMLAND
PROPOSED USE: LOW DENSITY RESIDENTIAL
PHASE LINE

TYPICAL LOT SIZES:

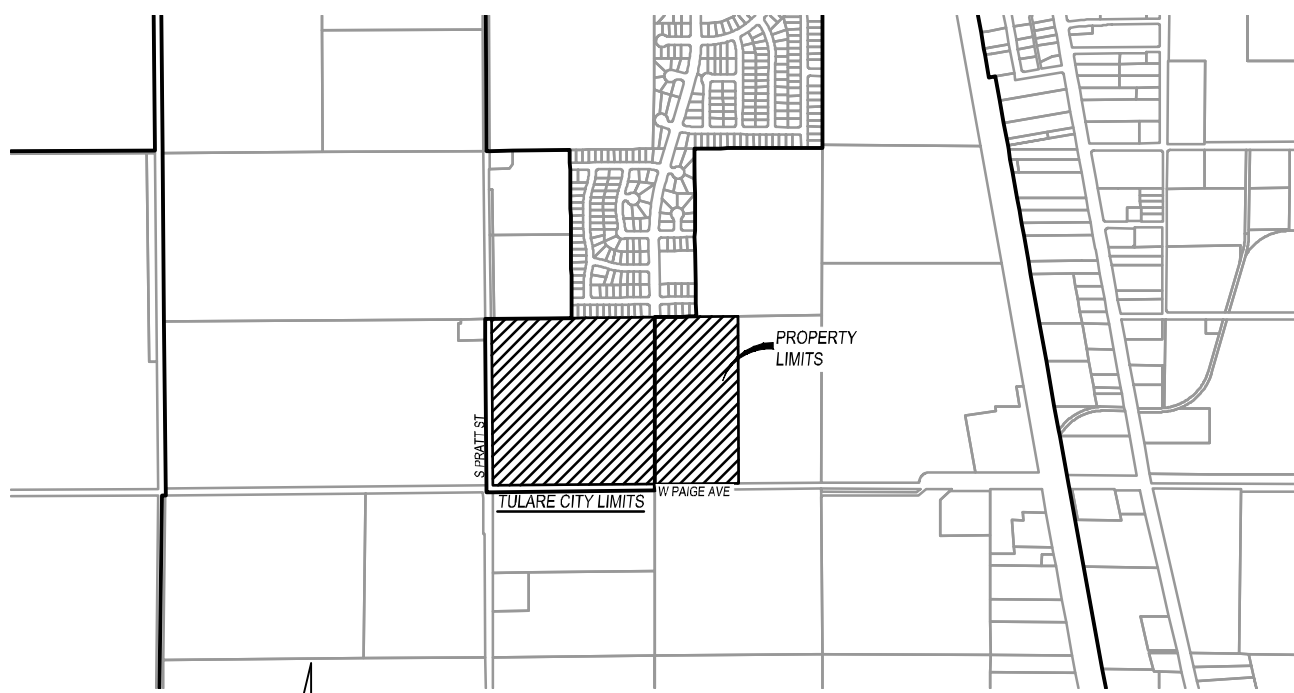
MIN. 5000 SF LOTS± (50' X 100') (84 UNITS)
MIN. 6000 SF LOTS± (60' X 100') (144 UNITS)

TOTAL 228 UNITS

*OUTLOTS A-I TO BE DEDICATED TO CITY OF TULARE

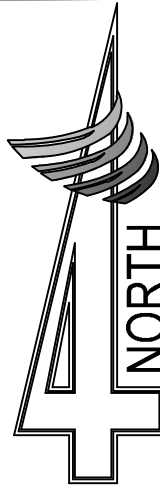
UTILITIES:

STORM WATER: TEMP. BASIN TO BE CONSTRUCTED OVER LOTS 6-13
SEWER: TIE-IN TO EXIST. 10" LINE IN E ST AND/OR EXIST. 27" LINE IN PAIGE AVE
WATER: TIE-IN TO EXIST. 12" LINE IN E ST



VICINITY MAP

SCALE: 1"=1500'



80' 0' 80'
PAGE 1 OF 2

PREPARED BY:



324 S. SANTA FE, STE. A
VISALIA, CA 93292
TEL: 559.802.3652
FAX: 559.802.3215
www.4-creeks.com



LEKKERKERKER PROPERTY

TENTATIVE SUBDIVISION MAP

PREPARED FOR:

ARTEMIS, LLC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

PREPARED BY:

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ACREAGE

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38.11 AC	R-1-6 (60' x 100')	3.78 UNITS/AC

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ELECTRICITY:	SOUTHERN CALIFORNIA EDISON
TELEPHONE:	AT&T
NATURAL GAS:	SOUTHERN CALIFORNIA GAS
EXISTING USE:	FARMLAND
PROPOSED USE:	LOW DENSITY RESIDENTIAL
	PHASE LINE

TYPICAL LOT SIZES:

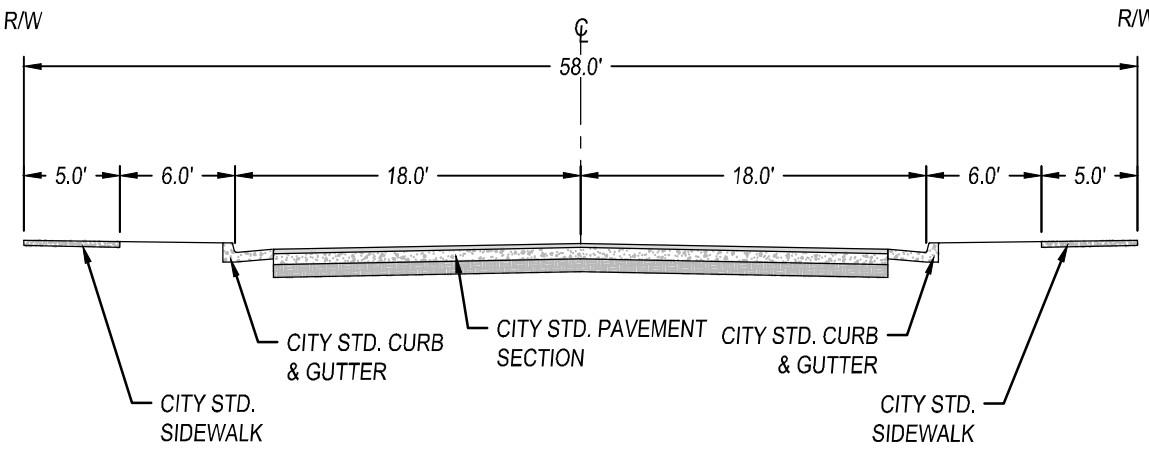
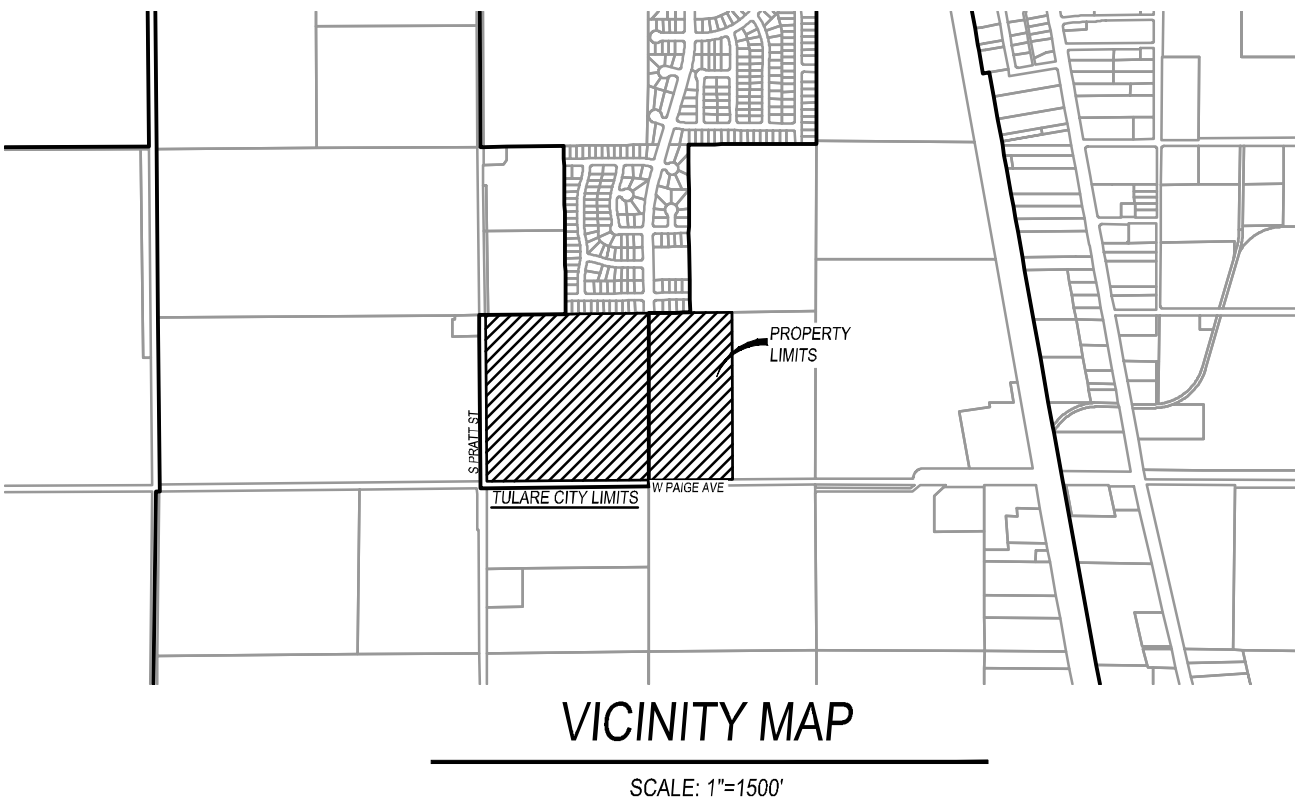
MIN. 5000 SF LOTS± (50' X 100') (84 UNITS)
MIN. 6000 SF LOTS± (60' X 100') (144 UNITS)

TOTAL 228 UNITS

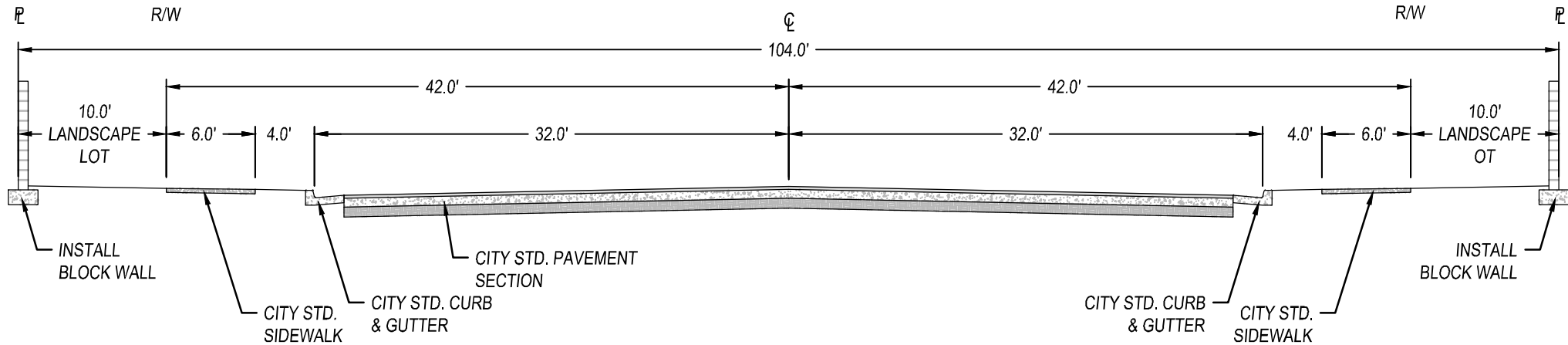
*OUTLOTS A-I TO BE DEDICATED TO CITY OF TULARE

UTILITIES:

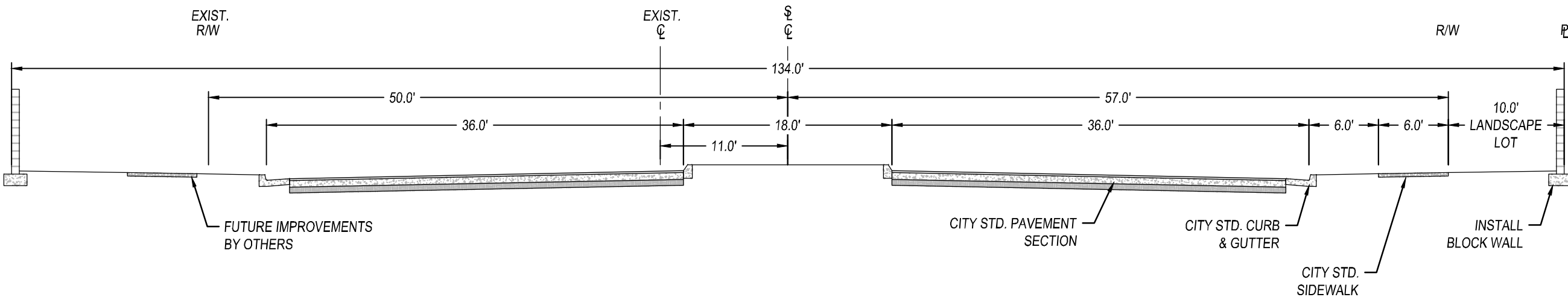
STORM WATER:	TEMP. BASIN TO BE CONSTRUCTED OVER LOTS 6-13
SEWER:	TIE-IN TO EXIST. 10" LINE IN E ST AND/OR EXIST. 27" LINE IN PAIGE AVE
WATER:	TIE-IN TO EXIST. 12" LINE IN E ST



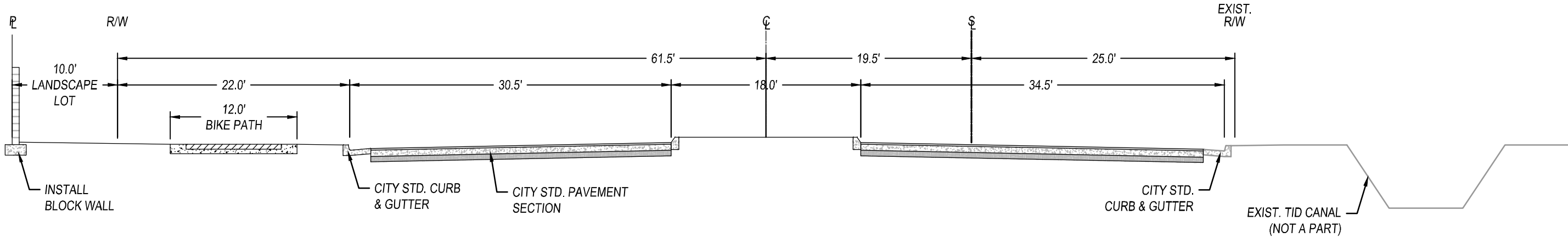
TYP. LOCAL



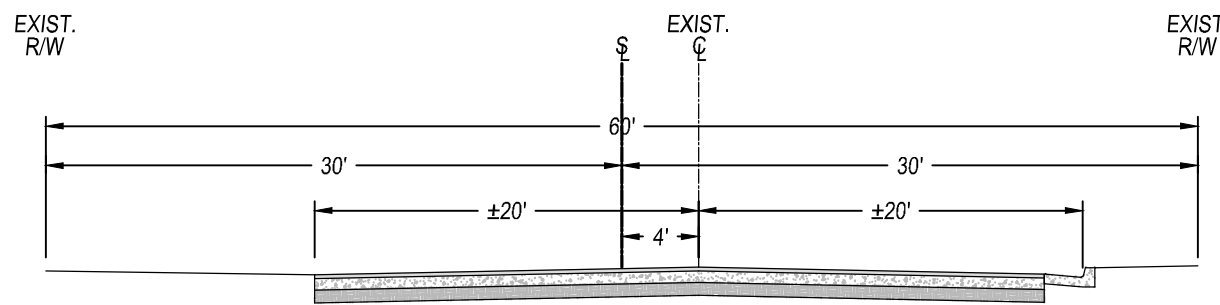
S E ST.
LOOKING NORTH



S PRATT ST.
LOOKING NORTH



W PAIGE AVE.
LOOKING EAST



EXIST. W PAIGE AVE.
LOOKING EAST

Attachment C

CalEEMod Emissions Estimates
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Lekkerkerker Property Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Lekkerkerker Property
Construction Start Date	3/1/2025
Operational Year	2026
Lead Agency	City of Tulare
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.18403139729746, -119.35468745314893
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2746
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.26

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	228	Dwelling Unit	57.3	444,600	2,670,531	—	771	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.08	27.8	26.4	0.06	1.17	10.5	1.07	4.76	6,300	0.26	0.12	4.36	6,323
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	139	27.8	26.1	0.06	1.17	10.5	1.07	4.76	6,284	0.26	0.12	0.11	6,307
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.65	5.99	7.14	0.01	0.23	2.14	0.22	0.93	1,732	0.07	0.08	1.22	1,752
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40	1.09	1.30	< 0.005	0.04	0.39	0.04	0.17	287	0.01	0.01	0.20	290
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	10.0	10.0	100	27.0	—	15.0	—	15.0	—	—	—	—	—
Unmit.	No	No	No	No	—	No	—	No	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
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Lekkerkerker Property Detailed Report, 8/9/2024

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.08	27.8	26.4	0.06	1.17	10.5	1.07	4.76	6,300	0.26	0.12	4.36	6,323
2026	0.72	3.42	7.77	0.01	0.10	0.92	0.10	0.29	1,807	0.07	0.12	3.94	1,847
2027	0.66	3.27	7.35	0.01	0.10	0.91	0.09	0.29	1,781	0.07	0.12	3.55	1,821
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.07	27.8	26.1	0.06	1.17	10.5	1.07	4.76	6,284	0.26	0.12	0.11	6,307
2026	0.64	3.56	6.46	0.01	0.10	0.92	0.10	0.29	1,725	0.08	0.12	0.10	1,761
2027	0.62	3.39	6.14	0.01	0.10	0.91	0.09	0.29	1,700	0.05	0.12	0.09	1,736
2028	139	3.34	5.24	0.01	0.13	0.19	0.12	0.13	811	0.03	0.01	0.01	814
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.78	5.99	7.14	0.01	0.23	2.14	0.22	0.93	1,732	0.07	0.06	0.82	1,752
2026	0.48	2.50	4.78	0.01	0.07	0.65	0.07	0.21	1,249	0.05	0.08	1.22	1,276
2027	0.44	2.39	4.54	0.01	0.07	0.64	0.06	0.20	1,231	0.05	0.08	1.09	1,258
2028	7.65	0.24	0.40	< 0.005	0.01	0.02	0.01	0.01	60.9	< 0.005	< 0.005	0.01	61.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	1.09	1.30	< 0.005	0.04	0.39	0.04	0.17	287	0.01	0.01	0.14	290
2026	0.09	0.46	0.87	< 0.005	0.01	0.12	0.01	0.04	207	0.01	0.01	0.20	211
2027	0.08	0.44	0.83	< 0.005	0.01	0.12	0.01	0.04	204	0.01	0.01	0.18	208
2028	1.40	0.04	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.1	< 0.005	< 0.005	< 0.005	10.1

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.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Lekkerkerker Property Detailed Report, 8/9/2024

Unmit.	11.5	0.81	13.9	0.01	0.01	0.33	0.01	0.09	5,317	14.7	0.19	5.60	5,747
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	0.74	0.83	0.01	0.01	0.33	0.01	0.09	5,267	14.7	0.19	3.25	5,695
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.9	0.77	7.21	0.01	0.01	0.32	0.01	0.09	5,272	14.7	0.19	4.20	5,700
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.00	0.14	1.32	< 0.005	< 0.005	0.06	< 0.005	0.02	873	2.44	0.03	0.70	944
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	10.0	10.0	100	27.0	—	15.0	—	15.0	—	—	—	—	—
Unmit.	No	No	No	No	—	No	—	No	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Area	11.4	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	11.5	0.81	13.9	0.01	0.01	0.33	0.01	0.09	5,317	14.7	0.19	5.60	5,747

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Area	10.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	10.4	0.74	0.83	0.01	0.01	0.33	0.01	0.09	5,267	14.7	0.19	3.25	5,695
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.70	0.83	0.01	0.01	0.31	0.01	0.09	732	0.01	0.09	1.02	760
Area	10.8	0.06	6.38	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.1	< 0.005	< 0.005	—	17.1
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	10.9	0.77	7.21	0.01	0.01	0.32	0.01	0.09	5,272	14.7	0.19	4.20	5,700
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126
Area	1.98	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	701	0.07	0.01	—	705
Water	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2
Waste	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53
Total	2.00	0.14	1.32	< 0.005	< 0.005	0.06	< 0.005	0.02	873	2.44	0.03	0.70	944

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	10.2	9.42	0.02	0.44	0.44	0.41	0.41	1,668	0.07	0.01	—	1,674
Dust From Material Movement	—	—	—	—	—	6.55	—	3.37	—	—	—	—	—
Onsite truck	0.00	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	0.25	0.23	< 0.005	0.01	0.01	0.01	0.01	41.1	< 0.005	< 0.005	—	41.3
Dust From Material Movement	—	—	—	—	—	0.16	—	0.08	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.81	< 0.005	< 0.005	—	6.83
Dust From Material Movement	—	—	—	—	—	0.03	—	0.02	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.24	0.00	0.00	0.04	0.00	0.01	39.1	< 0.005	< 0.005	< 0.005	39.7
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
Hauling	0.00	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	0.01	0.00	0.00	< 0.005	0.00	< 0.005	1.00	< 0.005	< 0.005	< 0.005	1.02
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
Hauling	0.00	0.00	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	0.00	0.00	< 0.005	0.00	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.17
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
Hauling	0.00	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 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	27.7	25.4	0.06	1.17	1.17	1.07	1.07	6,167	0.25	0.05	—	6,188
Dust From Material Movement	—	—	—	—	—	9.20	—	3.65	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	27.7	25.4	0.06	1.17	1.17	1.07	1.07	6,167	0.25	0.05	—	6,188
Dust From Material Movement	—	—	—	—	—	9.20	—	3.65	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.18	3.83	0.01	0.18	0.18	0.16	0.16	929	0.04	0.01	—	932
Dust From Material Movement	—	—	—	—	—	1.39	—	0.55	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.76	0.70	< 0.005	0.03	0.03	0.03	0.03	154	0.01	< 0.005	—	154
Dust From Material Movement	—	—	—	—	—	0.25	—	0.10	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.99	0.00	0.00	0.12	0.00	0.03	133	0.01	0.01	0.51	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07	0.08	0.73	0.00	0.00	0.12	0.00	0.03	117	0.01	0.01	0.01	119
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
Hauling	0.00	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	0.12	0.00	0.00	0.02	0.00	< 0.005	18.3	< 0.005	< 0.005	0.03	18.6
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
Hauling	0.00	0.00	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	0.02	0.00	0.00	< 0.005	0.00	< 0.005	3.04	< 0.005	< 0.005	0.01	3.08
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
Hauling	0.00	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 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	2.49	2.54	0.01	0.10	0.10	0.10	0.10	537	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.27	2.49	2.54	0.01	0.10	0.10	0.10	0.10	537	0.02	< 0.005	—	538
Onsite truck	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	0.11	1.04	1.06	< 0.005	0.04	0.04	0.04	0.04	225	0.01	< 0.005	—	225
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.19	< 0.005	0.01	0.01	0.01	0.01	37.2	< 0.005	< 0.005	—	37.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.34	5.41	0.00	0.00	0.66	0.00	0.16	727	0.04	0.03	2.81	739
Vendor	0.02	0.78	0.28	< 0.005	0.01	0.16	0.01	0.05	570	0.01	0.08	1.55	597
Hauling	0.00	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	0.40	0.41	3.97	0.00	0.00	0.66	0.00	0.16	642	0.04	0.03	0.07	651
Vendor	0.02	0.83	0.29	< 0.005	0.01	0.16	0.01	0.05	570	0.01	0.08	0.04	596
Hauling	0.00	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	0.17	0.16	1.77	0.00	0.00	0.27	0.00	0.06	279	0.02	0.01	0.51	283
Vendor	0.01	0.34	0.12	< 0.005	< 0.005	0.07	< 0.005	0.02	239	< 0.005	0.04	0.28	250
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.05	0.00	0.01	46.2	< 0.005	< 0.005	0.08	46.9
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	< 0.005	< 0.005	39.5	< 0.005	0.01	0.05	41.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. 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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.38	2.52	0.01	0.10	0.10	0.09	0.09	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.26	2.38	2.52	0.01	0.10	0.10	0.09	0.09	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.19	1.70	1.80	< 0.005	0.07	0.07	0.06	0.06	383	0.02	< 0.005	—	385
Onsite truck	0.00	0.00	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	0.31	0.33	< 0.005	0.01	0.01	0.01	0.01	63.4	< 0.005	< 0.005	—	63.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.29	4.98	0.00	0.00	0.66	0.00	0.16	711	0.04	0.03	2.56	723
Vendor	0.02	0.75	0.27	< 0.005	0.01	0.16	0.01	0.05	559	0.01	0.08	1.38	586
Hauling	0.00	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	0.36	0.39	3.66	0.00	0.00	0.66	0.00	0.16	628	0.04	0.03	0.07	638
Vendor	0.02	0.80	0.28	< 0.005	0.01	0.16	0.01	0.05	560	0.01	0.08	0.04	585
Hauling	0.00	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	0.28	0.24	2.78	0.00	0.00	0.47	0.00	0.11	466	0.03	0.02	0.79	473
Vendor	0.01	0.56	0.19	< 0.005	0.01	0.11	0.01	0.04	400	0.01	0.06	0.43	418
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.51	0.00	0.00	0.08	0.00	0.02	77.1	< 0.005	< 0.005	0.13	78.4
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	< 0.005	0.01	66.2	< 0.005	0.01	0.07	69.2
Hauling	0.00	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 (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.29	2.52	0.01	0.09	0.09	0.08	0.08	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.26	2.29	2.52	0.01	0.09	0.09	0.08	0.08	536	0.02	< 0.005	—	538

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Onsite truck	0.00	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	0.18	1.64	1.80	< 0.005	0.06	0.06	0.06	0.06	383	0.02	< 0.005	—	384
Onsite truck	0.00	0.00	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	0.30	0.33	< 0.005	0.01	0.01	0.01	0.01	63.4	< 0.005	< 0.005	—	63.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.27	4.58	0.00	0.00	0.66	0.00	0.16	697	0.04	0.03	2.32	708
Vendor	0.02	0.71	0.26	< 0.005	0.01	0.16	0.01	0.05	548	0.01	0.08	1.23	574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.34	3.35	0.00	0.00	0.66	0.00	0.16	616	0.02	0.03	0.06	625
Vendor	0.02	0.76	0.27	< 0.005	0.01	0.16	0.01	0.05	548	0.01	0.08	0.03	574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	2.56	0.00	0.00	0.47	0.00	0.11	456	0.03	0.02	0.71	464
Vendor	0.01	0.53	0.19	< 0.005	0.01	0.11	0.01	0.04	391	0.01	0.06	0.38	410
Hauling	0.00	0.00	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	0.04	0.47	0.00	0.00	0.08	0.00	0.02	75.6	< 0.005	< 0.005	0.12	76.8
Vendor	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	< 0.005	0.01	64.8	< 0.005	0.01	0.06	67.8

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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3.11. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.31	4.95	0.01	0.13	0.13	0.12	0.12	756	0.03	0.01	—	758
Paving	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.29	< 0.005	0.01	0.01	0.01	0.01	43.5	< 0.005	< 0.005	—	43.6
Paving	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.20	< 0.005	< 0.005	—	7.22
Paving	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.28	0.00	0.00	0.06	0.00	0.01	55.2	< 0.005	< 0.005	< 0.005	56.0
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
Hauling	0.00	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	0.02	0.00	0.00	< 0.005	0.00	< 0.005	3.29	< 0.005	< 0.005	< 0.005	3.34
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
Hauling	0.00	0.00	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	0.00	0.00	< 0.005	0.00	< 0.005	0.55	< 0.005	< 0.005	< 0.005	0.55
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
Hauling	0.00	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.81	1.12	< 0.005	0.02	0.02	0.01	0.01	134	0.01	< 0.005	—	134
Architectural Coatings	139	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	7.62	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	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	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.39	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	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	0.06	0.06	0.62	0.00	0.00	0.13	0.00	0.03	121	< 0.005	0.01	0.01	122
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	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	0.04	0.00	0.00	0.01	0.00	< 0.005	6.86	< 0.005	< 0.005	0.01	6.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	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	0.01	0.00	0.00	< 0.005	0.00	< 0.005	1.14	< 0.005	< 0.005	< 0.005	1.15
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

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Total	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Total	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126
Total	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Total	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Total	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	701	0.07	0.01	—	705
Total	—	—	—	—	—	—	—	—	701	0.07	0.01	—	705

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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
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

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
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
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
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

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	ROG	NOx	CO	SO ₂	PM ₁₀ E	PM ₁₀ T	PM _{2.5} E	PM _{2.5} T	CO ₂ T	CH ₄	N ₂ O	R	CO ₂ e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	9.51	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.15	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Total	11.4	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consumer Products	9.51	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—	—	—
Total	10.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	1.74	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83
Total	1.98	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Total	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Total	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2
Total	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Total	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Total	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8
Total	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53
Total	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
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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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestere	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestere d	—	—	—	—	—	—	—	—	—	—	—	—	—
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	3/4/2025	3/15/2025	5.00	9.00	—
Grading	Grading	3/16/2025	5/31/2025	5.00	55.0	—
Building Construction	Building Construction	6/1/2025	12/31/2027	5.00	675	—
Paving	Paving	1/1/2028	1/31/2028	5.00	21.0	—
Architectural Coating	Architectural Coating	2/1/2028	2/28/2028	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

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Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	1.00	4.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	2.00	367	0.29
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	3.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.4	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.43	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Grading	—	—	—	—
Grading	Worker	15.0	11.4	LDA,LDT1,LDT2
Grading	Vendor	—	7.43	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	82.1	11.4	LDA,LDT1,LDT2
Building Construction	Vendor	24.4	7.43	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	7.50	11.4	LDA,LDT1,LDT2
Paving	Vendor	—	7.43	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	16.4	11.4	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.43	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)
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Architectural Coating	900,315	300,105	0.00	0.00	—
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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	—	—	4.50	0.00	—
Grading	—	—	165	0.00	—
Paving	0.00	0.00	0.00	0.00	2.51

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	2.51	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
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	2,152	2,175	1,949	776,205	18,715	18,914	16,951	6,749,483

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	0
No Fireplaces	228
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)
900315	300,105	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
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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	4,466,189	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	9,704,284	47,105,797

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	230	—

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
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	32.4	annual days of extreme heat
Extreme Precipitation	0.60	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	97.9
AQ-DPM	22.7
Drinking Water	79.0
Lead Risk Housing	45.6
Pesticides	80.2
Toxic Releases	36.4
Traffic	4.76
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	80.5
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	79.6
Cardio-vascular	93.1
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—

Education	91.6
Housing	55.1
Linguistic	94.8
Poverty	84.9
Unemployment	63.4

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	12.83202874
Employed	20.45425382
Median HI	18.70909791
Education	—
Bachelor's or higher	2.746054151
High school enrollment	100
Preschool enrollment	44.86077249
Transportation	—
Auto Access	45.25856538
Active commuting	12.97318106
Social	—
2-parent households	42.39702297
Voting	12.19042731
Neighborhood	—
Alcohol availability	60.19504684
Park access	52.12370076
Retail density	9.072244322
Supermarket access	26.20300269

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Tree canopy	4.812010779
Housing	—
Homeownership	45.46387784
Housing habitability	43.2567689
Low-inc homeowner severe housing cost burden	45.7590145
Low-inc renter severe housing cost burden	38.6629026
Uncrowded housing	24.97112794
Health Outcomes	—
Insured adults	24.03438984
Arthritis	0.0
Asthma ER Admissions	16.0
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	1.8
Cognitively Disabled	85.7
Physically Disabled	76.0
Heart Attack ER Admissions	13.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
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	14.1
Elderly	80.7
English Speaking	22.0
Foreign-born	57.2
Outdoor Workers	24.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.7
Traffic Density	10.6
Traffic Access	0.0
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	17.5

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)	16.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Suburban setting
Characteristics: Utility Information	The electric provider is Southern California Edison
Land Use	Site is 57.3 acres
Construction: Construction Phases	No demolition is required. Project-specific construction schedule entered.
Construction: Off-Road Equipment	Project-specific construction equipment entered.
Operations: Fleet Mix	Utilized SJVAPCD approved fleet mix for residential projects (operational year 2026)
Operations: Hearths	Project does not include any gas or wood hearths.
Operations: Energy Use	Project will not be connected to natural gas. Electricity consumption was adjusted to account for the energy that would have been provided by natural gas.

Attachment D
Energy Calculations

Construction Equipment Energy Use

Diesel only

Phase Name	Off Road Equipment Type	Off Road Equipment Unit Amount ¹	Usage Hours Per Day ¹	Horse Power (lbs/sec) ¹	Load Factor ¹	Total Operational Hours	BSFC ²	Fuel Used (gallons) ³	MBTU ⁴
Site Preparation	Rubber Tired Dozers	1	8	367	0.4	72	0.367	545.65	75.8456892
Site Preparation	Tractors/Loaders/Backhoes	1	8	84	0.37	72	0.408	128.43	17.8517154
Grading	Graders	1	8	148	0.41	440	0.367	1378.34	191.589012
Grading	Rubber Tired Dozers	1	8	367	0.4	440	0.367	3334.54	463.501434
Grading	Excavators	1	8	36	0.38	440	0.367	310.74	43.1927767
Grading	Scrapers	2	8	423	0.48	880	0.367	9224.05	1282.14348
Grading	Tractors/Loaders/Backhoes	1	8	84	0.37	440	0.408	784.85	109.093817
Building Construction	Cranes	1	7	367	0.29	4725	0.367	25961.12	3608.59568
Building Construction	Forklifts	3	8	82	0.2	16200	0.408	15247.92	2119.46042
Building Construction	Generator Sets	1	8	14	0.74	5400	0.408	3210.74	446.292886
Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37	14175	0.408	25284.58	3514.55648
Building Construction	Welders	0	8	46	0.45	0	0.408	0.00	0
Paving	Pavers	1	8	81	0.42	168	0.367	295.05	41.0124715
Paving	Paving Equipment	1	8	89	0.36	168	0.367	277.88	38.6255022
Paving	Rollers	1	8	36	0.38	168	0.408	131.90	18.3341942
Architectural Coating	Air Compressors	1	6	37	0.48	120	0.408	122.31	17.0016338
Total								86238.11	11987.10

Construction Phases

PhaseNumber	Phase Name	Phase Type	Phase Start Date ¹	Phase End Date ¹	Num Days Week ¹	Total Number of Days ¹
1	Site Preparation	Site Preparation	3/4/2025	3/15/2025	5	9
2	Grading	Grading	3/16/2025	5/31/2025	5	55
3	Building Construction	Building Constr	6/1/2025	12/31/2027	5	675
4	Paving	Paving	1/1/2028	1/31/2028	5	21
5	Architectural Coating	Architectural Co	2/1/2028	2/28/2028	5	20

Notes

1. CalEEMod Default Values Used
2. BSFC - Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367
3. Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion
4. MBTU calculated for comparison purposes. Assumed 1 gallon of diesel = 0.139 MBTU

Mobile Energy Use (Construction)

Worker Trips

	Daily Worker Trips ¹	Worker Trip Length ¹	VMT/Day	MPG Factor (EMFAC2017)	Gallons of Gas/Day	# of Days	Total Gallons of Gas	MBTU
Site Preparation	5	11.4	57	29.23	2.0	9	18	2.037433
Grading	15	11.4	171	29.23	5.9	55	322	37.35294
Building Construction	82.08	11.4	935.712	29.23	32.0	675	21608	2508.488
Paving	7.5	11.4	85.5	29.23	2.9	21	61	7.131016
Architectural Coating	16.41	11.4	187.074	29.23	6.4	20	128	14.85968
Total	N/A	N/A	N/A	N/A	N/A	780	22137	2569.869

Vendor Trips

	Daily Vendor Trips	Vendor Trip Length	VMT/Day	MPG Factor	Gallons of Diesel/Day	# of Days	Total Gallons of Diesel	MBTU
Building Construction	24.37	7.43	181.0691	8.43	21.5	3100	66585.31554	9255.359

Fleet Characteristics

	Vehicle Class	Fleet Mix	2024 MPG Factor (EMFAC2017)	Average MPG Factor
Assumed Vehicle Fleet for Workers	LDA	33%	33.24	29.13
	LDT1	33%	28.07	
	LDT2	33%	26.07	
Assumed Vehicle Fleet for Vendor Trips	MHD	50%	9.74	8.43
	HHD	50%	7.12	

Notes

1. CalEEMod Default values used
2. MBTU calculated for comparison purposes. Assumed 1 gallon of gasoline = 0.11609 MBTU

Summary of Energy Use (Construction)

	Off-Road Equipment Fuel (Diesel)		On-Road Vehicle Fuel				Total MBTU
			Diesel		Gasoline		
	Gallons	MMBTU	Gallons	MMBTU	Gallons	MMBTU	
FNC Farming	86238	11987	66585	9255	22137	2570	23812
Total Construction Energy Use							23812
Average Annual Construction Energy Use							15875

Mobile Energy Use (Operations)

Total Annual VMT from Project (CalEEMod)	6,749,483
------------------------------------------	-----------

Fleet Mix & Fuel Calculations

Vehicle Class	Proportion of Fleet Mix ¹	Annual VMT by Vehicle Class	Proportion of vehicle class using gas or diesel (EMFAC2021) ²		Annual VMT by Vehicle Class and Fuel Type		Fuel Efficiency (MPG) by Vehicle Class and Fuel Type (EMFAC2017)		Annual Fuel Use from Project (gallons)		MBTU/Year ³
			Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	
LDA	0.525357000	3545888.1	99%	1%	3512409.70	33478.44	35.18	58.79	99841.1	569.5	11669.7
LDT1	0.051382000	346801.9	100%	0%	346681.59	120.34	29.77	27.69	11645.3	4.3	1352.5
LDT2	0.167800000	1132563.2	99%	1%	1124829.65	7733.59	28.32	43.82	39718.6	176.5	4635.5
MDV	0.162287000	1095353.3	97%	3%	1067187.68	28165.67	21.79	30.63	48976.0	919.5	5813.4
LHD1	0.028850000	194722.6	43%	57%	84327.52	110395.07	8.73	18.39	9659.5	6003.0	1955.8
LHD2	0.007480000	50486.1	27%	73%	13820.29	36665.84	7.56	16.50	1828.1	2222.2	521.1
MHD	0.012195000	82309.9	8%	92%	6465.84	75844.10	5.16	9.99	1253.1	7592.0	1200.8
HHH	0.015949000	107647.5	0%	100%	16.65	107630.85	4.85	7.43	3.4	14486.0	2014.0
OBUS	0.000630000	4252.2	44%	56%	1856.09	2396.09	5.03	8.43	369.0	284.2	82.3
UBUS	0.000469000	3165.5	77%	23%	2424.99	740.52	4.80	10.00	505.2	74.1	68.9
MCY	0.022910000	154630.7	100%	0%	154630.66	0.00	37.99	NA	4070.3	0.0	472.5
SBUS	0.001396000	9422.3	20%	80%	1921.01	7501.26	9.34	8.28	205.7	905.9	149.8
MH	0.003296000	22246.3	65%	35%	14489.84	7756.46	5.06	10.02	2863.6	774.1	440.0
Total	100.000100%	6749489.7			6331061.53	418428.22			220938.9	34011.3	30376.4

Fleet Characteristics

Source: EMFAC2017 (v1.0.3) Emissions Inventory

Region Type: County

Region: Tulare

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for VMT, trips/year for Trips, tons/year for Emissions, tons/year for Fuel Consumption

GASOLINE

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT (Annual)	Trips (Annual)	Fuel Consumption (tons/year)	Annual Fuel Consumption (gallons)	MPG
Tulare	2024	HHDT	Aggregate	Aggregate	Gasoline	1	40832	5642	20.78	8.69	4699.19
Tulare	2024	LDA	Aggregate	Aggregate	Gasoline	200092	2758210730	325924543	33135.62	82978.87	33239.92
Tulare	2024	LDT1	Aggregate	Aggregate	Gasoline	20489	250774265	31894273	2948.74	8932.61	28074.03
Tulare	2024	LDT2	Aggregate	Aggregate	Gasoline	66393	838611285	105810710	17680.41	31789.15	26380.43
Tulare	2024	LHDT1	Aggregate	Aggregate	Gasoline	5502	58348244	26803634	3808.07	6870.06	8493.13
Tulare	2024	LHDT2	Aggregate	Aggregate	Gasoline	905	9488315	4406586	531.73	1285.70	7379.91
Tulare	2024	MCY	Aggregate	Aggregate	Gasoline	9526	22280789	6611059	174.10	588.70	37847.58
Tulare	2024	MDV	Aggregate	Aggregate	Gasoline	68672	787150190	106279450	19692.36	38420.97	20487.51
Tulare	2024	MH	Aggregate	Aggregate	Gasoline	920	2631245	30111	277.79	536.98	4900.12
Tulare	2024	MHDT	Aggregate	Aggregate	Gasoline	423	7125304	2764314	837.27	1429.47	4984.57
Tulare	2024	OBUS	Aggregate	Aggregate	Gasoline	141	1996552	922982	323.76	410.91	4858.85
Tulare	2024	SBUS	Aggregate	Aggregate	Gasoline	84	1324045	109782	64.45	144.05	9191.53
Tulare	2024	UBUS	Aggregate	Aggregate	Gasoline	76	2232433	99041	21.38	483.67	4615.66

DIESEL

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT (annual)	Trips (annual)	Fuel Consumption (tons/year)	Annual Fuel Consumption (gallons)	MPG
Kings	2024	HHDT	Aggregate	Aggregate	Diesel	6329	263877277	22366793	37063.1	37063112	7.12
Kings	2024	LDA	Aggregate	Aggregate	Diesel	1810	26289809	2985204	474.4	474415	55.42
Kings	2024	LDT1	Aggregate	Aggregate	Diesel	13	87050	14634	3.3	3271	26.61
Kings	2024	LDT2	Aggregate	Aggregate	Diesel	390	5765743	658531	140.0	139970	41.19
Kings	2024	LHDT1	Aggregate	Aggregate	Diesel	7282	76385011	29952675	4256.6	4256603	17.95
Kings	2024	LHDT2	Aggregate	Aggregate	Diesel	2329	25172917	9581028	1564.9	1564922	16.09
Kings	2024	MDV	Aggregate	Aggregate	Diesel	1548	20774799	2543773	719.8	719773	28.86
Kings	2024	MH	Aggregate	Aggregate	Diesel	532	1408515	17405	143.3	143324	9.83
Kings	2024	MHDT	Aggregate	Aggregate	Diesel	4433	83579546	12100911	8579.8	8579805	9.74
Kings	2024	OBUS	Aggregate	Aggregate	Diesel	116	2577417	329811	319.0	319022	8.08
Kings	2024	SBUS	Aggregate	Aggregate	Diesel	509	5170191	1919120	636.3	636286	8.13
Kings	2024	UBUS	Aggregate	Aggregate	Diesel	22	681715	28821	68.3	68342	9.98

19.91

Notes

- CalEEMod Defaults Used
- Proportion of diesel vs. gasoline vehicles calculated based on total annual VMT for each vehicle class

3. MBTU Calculated for comparison purposes. Assumed 1 gallon of gasoline = 0.116090 MBTU and 1 gallong of diesel = 0.139 MBTU

Summary of Energy Use (Operation)

Mobile Fuel Use		
	Gal/Year	MMBTU
FNC Subdiv. (Gasoline)	220939	26576
FNC Subdiv. (Diesel)	34011	4673
Electricity Use		
	kWh/Year	MMBTU
FNC Subdiv.	1310282	4471
Natural Gas Use		
	kBTU/Year	MMBTU
FNC Subdiv.	0	0
Total Operational Energy Use		MMBTU
		35719

Attachment E

Health Risk Assessment

Technical Report
Health Risk Assessment
For California Environmental Quality Act (CEQA)

Project Name:
Lekkerkerker Subdivision
Tulare, CA

Prepared for:
4Creeks, Inc.
Visalia, CA

Author:
Core Environmental Consulting
Clovis, CA

Lead Agency:
City of Tulare

Date of Preparation:
September 2024



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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 Lekkerkerker subdivision project (Project) in Tulare, California. The Project proposes development of a 228-lot single-family residential subdivision, to be located in the City of Tulare (City) on the northeast corner of W. Paige Avenue and S. Pratt Street.

The Project is subject to the California Environmental Quality Act (CEQA), with the City serving as the Lead Agency pursuant to the *CEQA Statute and Guidelines*¹ (CEQA Guidelines). An Initial Study is currently in process and this HRA was completed to assess the potential significance of construction-related Toxic Air Contaminant (TAC) emissions 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 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 CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*⁶ (ADMRT).

The calculated health risks for Project construction DPM are below the SJVAPCD thresholds of significance. No Project-specific mitigation is required, outside of compliance with existing regulations, for the health risk to remain below the thresholds. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations, and related impacts would be *less than significant* according to the *CEQA Guidelines*.

¹ (Association of Environmental Professionals, 2024)

² (San Joaquin Valley Air Pollution Control District, 2015)

³ (Office of Environmental Health Hazard Assessment, 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 development of a 228-lot single-family residential subdivision, to be located in the City of Tulare (City) on the Northeast corner of W. Paige Avenue and S. Pratt Street. The Project site is approximately 57.3 acres and includes Assessor Parcel Numbers (APN) 174-030-009 and 174-030-010.

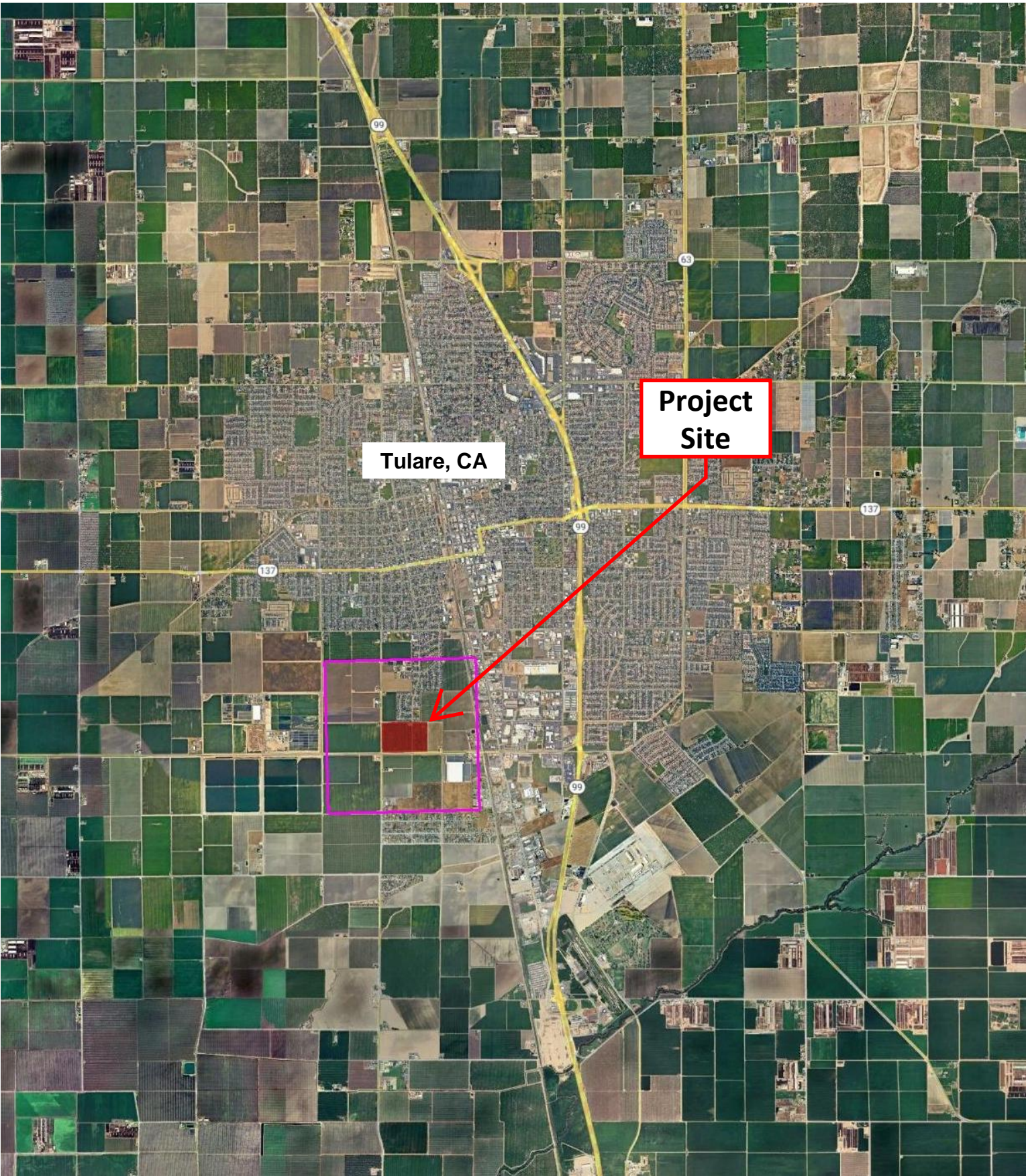
Zoning is currently R-1-5 (single-family residential, 5,000 sqft minimum) and R-1-6 (single-family residential, 6,000 sqft minimum); General Plan designation is Low-density Residential. Typical lot sizes would be according to the zoning requirements: either 5,000 sqft (50ft by 100 ft), for 84 of the units, or 6,000 sqft (60 ft by 100 ft) for 144 units. Outlots A through I would be dedicated to the City of Tulare.

Sewer and water would tie into existing lines. Roadway improvements would be included along the Project side of S. Pratt Street and W. Paige Avenue. S. East Street would be extended through the site, connecting its current terminus in the residential subdivision north of the Project site to W. Paige Avenue on the southern side of the site. Multiple internal streets would also be constructed, including outlets on the west, east, and north.

Existing use of the Project site appears to be agricultural row crops (fruit trees), based on imagery from Google Earth. Surrounding land uses are primarily agricultural, with a few commercial and industrial facilities located throughout. Single family-residential uses are located adjacent to the northern side of the Project. To the northwest, west, and south of the Project, land uses are almost entirely agriculture. Some development has occurred to the southeast, and east, with a string of development going south along CA-99, but most is in the City, which covers about 18 square miles approximately 1 mile north and northeast of the Project site.

A Vicinity Map and Tentative Subdivision Map are included below as Figure 1 and Figure 2, respectively.

Construction is currently expected to occur in three (3) phases; however, the exact timelines, along with final details of the fully-developed Project, are not yet known as they will depend on completing all required permits and incorporating all design considerations and conditions of approval.



Core Environmental Consulting
Clovis, CA 93612
(559) 202-3941

PROJECT NAME Lekkerkerker Subdivision	DATE 9/10/24	SCALE NOT TO SCALE	FIGURE 1 VICINITY MAP
PROJECT NUMBER 24006	DRAWN BY JM	LAT/LONG 36.184031, -119.354688	

LEKKERKERKER PROPERTY

TENTATIVE SUBDIVISION MAP

PREPARED FOR:

ARTEMIS, LLC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

PREPARED BY:

4CREEKS, INC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

ACREAGE

19.20 AC R-1-5 (50' x 100') 4.38 UNITS/AC
38.11 AC R-1-6 (60' x 100') 3.78 UNITS/AC

LEGEND

APN: 174030009, 174030010
ZONING: R-1-5 & R-1-6
GENERAL PLAN: LOW DENSITY RESIDENTIAL
FLOOD ZONE: X
ELECTRICITY: SOUTHERN CALIFORNIA EDISON
TELEPHONE: AT&T
NATURAL GAS: SOUTHERN CALIFORNIA GAS
EXISTING USE: FARMLAND
PROPOSED USE: LOW DENSITY RESIDENTIAL
PHASE LINE

TYPICAL LOT SIZES:

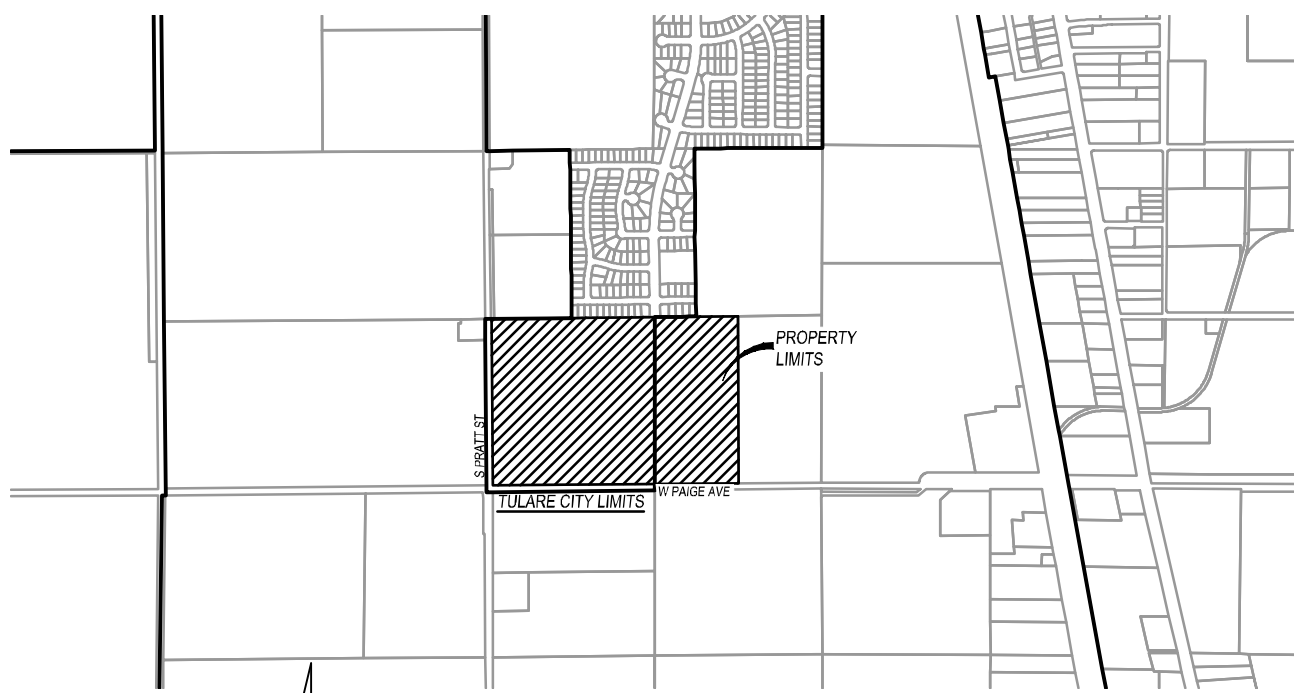
MIN. 5000 SF LOTS± (50' X 100') (84 UNITS)
MIN. 6000 SF LOTS± (60' X 100') (144 UNITS)

TOTAL 228 UNITS

*OUTLOTS A-I TO BE DEDICATED TO CITY OF TULARE

UTILITIES:

STORM WATER: TEMP. BASIN TO BE CONSTRUCTED OVER LOTS 6-13
SEWER: TIE-IN TO EXIST. 10" LINE IN E ST AND/OR EXIST. 27" LINE IN PAIGE AVE
WATER: TIE-IN TO EXIST. 12" LINE IN E ST



VICINITY MAP

SCALE: 1"=1500'



PREPARED BY:



4CREEKS

324 S. SANTA FE, STE. A
VISALIA, CA 93292
TEL: 559.802.3652
FAX: 559.802.3215
www.4-creeks.com

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 SJVAPCD 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 Thresholds of Significance

This HRA focuses on answering the following question from the Air Quality section of Appendix G in the *CEQA Guidelines*⁸:

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:

⁸ (Association of Environmental Professionals, 2024)

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)

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.

4 HRA Methodology

The Project could result in toxic air contaminant (TAC) emissions during construction and, to a limited extent, during operation. The primary TAC emissions resulting from Project construction would include diesel particulate matter (DPM), which consists of particulate matter 2.5 microns and smaller (PM_{2.5}) exhausted during the operation of on- and-off road diesel-fueled vehicles and equipment.

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

Once operational, diesel-fueled vehicle and equipment use would be minimal and would not result in a substantial health risk. The Project includes residential units and a city park; thus, there are no other substantial sources of TAC expected during construction or operation. Additional health risk could occur from the use of household cleaners, commercial products, landscaping equipment, and a number of other area sources; however, determining the use of such TAC sources would be highly speculative, and the health risk impact from these sources would be less than significant because existing federal, state, and local regulations are enforced for the composition, use, and disposal of these hazardous materials. This HRA is thus focused on construction DPM.

Construction health risk was evaluated in the following steps:

1. Maximum (worst year) annual construction emissions of exhaust PM_{2.5} were estimated by 4Creeks, Inc. using the *California Emissions Estimator Model*¹⁰ (CalEEMod) (Version 2022.1). CalEEMod results are attached in Appendix A.
2. 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 was obtained from SJVAPCD (Visalia met site), along with required modeling parameters. Terrain was incorporated using the built in WBGIS tool. A total of 55 nearby receptors were selected, including both residential and worker receptors.
3. Normalized downwind air concentrations for each receptor were imported into the CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*¹¹ (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.
4. Cancer risk and chronic and acute hazard indices were then estimated in ADMRT using SJVAPCD required exposure parameters and Project information.

Results of the AERMOD modeling and ADMRT calculations are attached in Appendix B, along with a map of receptors. Modeling input and output files will be made available to reviewing agencies upon request.

⁹ (California Air Resources Board, 2024)

¹⁰ (California Air Pollution Control Officers Association, 2022)

¹¹ (California Air Resources Board, 2022a)

5 HRA Results

5.1 Construction Risk

Results of the construction risk assessment are compared to SJVAPCD thresholds of significance in the table below. The nearest sensitive receptors include residences adjacent to the north side of the Project site, approximately 20 meters from the expected construction boundary. The highest risk exposure occurred at receptor 1, near the middle of the southern-most row of adjacent residential receptors.

Table 2 HRA Results Compared to SJVAPCD Thresholds of Significance

RISK	CARCINOGEN (max risk in one million)	ACUTE HAZARD INDEX	CHRONIC HAZARD INDEX
Construction	11	n/a	n/a
Thresholds of Significance	20	1	1

Notes: Hazard indices are for Maximally Exposed Individual.

Sources: Appendix B HRA Results

As shown in the Table above, construction risk would be below the SJVAPCD Thresholds of Significance. Therefore, consistent with the *CEQA Guidelines*¹², the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered *less than significant*.

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.

5.2 Mitigation

The Project would not expose sensitive receptors to substantial pollutant concentrations; therefore, impacts would be less than significant under CEQA and no mitigation is required beyond compliance with existing regulations and requirements.

¹² (Association of Environmental Professionals, 2024)

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Appendix A. CalEEMod Results

Prepared by 4Creeks, Inc.:

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Planner, Project Manager
Visalia, CA

August 2024

Lekkerkerker Property Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Lekkerkerker Property
Construction Start Date	3/1/2025
Operational Year	2026
Lead Agency	City of Tulare
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.18403139729746, -119.35468745314893
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2746
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.26

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	228	Dwelling Unit	57.3	444,600	2,670,531	—	771	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.08	27.8	26.4	0.06	1.17	10.5	1.07	4.76	6,300	0.26	0.12	4.36	6,323
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	139	27.8	26.1	0.06	1.17	10.5	1.07	4.76	6,284	0.26	0.12	0.11	6,307
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.65	5.99	7.14	0.01	0.23	2.14	0.22	0.93	1,732	0.07	0.08	1.22	1,752
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40	1.09	1.30	< 0.005	0.04	0.39	0.04	0.17	287	0.01	0.01	0.20	290
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	10.0	10.0	100	27.0	—	15.0	—	15.0	—	—	—	—	—
Unmit.	No	No	No	No	—	No	—	No	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
------	-----	-----	----	-----	-------	-------	--------	--------	------	-----	-----	---	------

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.08	27.8	26.4	0.06	1.17	10.5	1.07	4.76	6,300	0.26	0.12	4.36	6,323
2026	0.72	3.42	7.77	0.01	0.10	0.92	0.10	0.29	1,807	0.07	0.12	3.94	1,847
2027	0.66	3.27	7.35	0.01	0.10	0.91	0.09	0.29	1,781	0.07	0.12	3.55	1,821
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.07	27.8	26.1	0.06	1.17	10.5	1.07	4.76	6,284	0.26	0.12	0.11	6,307
2026	0.64	3.56	6.46	0.01	0.10	0.92	0.10	0.29	1,725	0.08	0.12	0.10	1,761
2027	0.62	3.39	6.14	0.01	0.10	0.91	0.09	0.29	1,700	0.05	0.12	0.09	1,736
2028	139	3.34	5.24	0.01	0.13	0.19	0.12	0.13	811	0.03	0.01	0.01	814
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.78	5.99	7.14	0.01	0.23	2.14	0.22	0.93	1,732	0.07	0.06	0.82	1,752
2026	0.48	2.50	4.78	0.01	0.07	0.65	0.07	0.21	1,249	0.05	0.08	1.22	1,276
2027	0.44	2.39	4.54	0.01	0.07	0.64	0.06	0.20	1,231	0.05	0.08	1.09	1,258
2028	7.65	0.24	0.40	< 0.005	0.01	0.02	0.01	0.01	60.9	< 0.005	< 0.005	0.01	61.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	1.09	1.30	< 0.005	0.04	0.39	0.04	0.17	287	0.01	0.01	0.14	290
2026	0.09	0.46	0.87	< 0.005	0.01	0.12	0.01	0.04	207	0.01	0.01	0.20	211
2027	0.08	0.44	0.83	< 0.005	0.01	0.12	0.01	0.04	204	0.01	0.01	0.18	208
2028	1.40	0.04	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.1	< 0.005	< 0.005	< 0.005	10.1

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.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	11.5	0.81	13.9	0.01	0.01	0.33	0.01	0.09	5,317	14.7	0.19	5.60	5,747
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	0.74	0.83	0.01	0.01	0.33	0.01	0.09	5,267	14.7	0.19	3.25	5,695
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.9	0.77	7.21	0.01	0.01	0.32	0.01	0.09	5,272	14.7	0.19	4.20	5,700
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.00	0.14	1.32	< 0.005	< 0.005	0.06	< 0.005	0.02	873	2.44	0.03	0.70	944
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	10.0	10.0	100	27.0	—	15.0	—	15.0	—	—	—	—	—
Unmit.	No	No	No	No	—	No	—	No	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Area	11.4	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	11.5	0.81	13.9	0.01	0.01	0.33	0.01	0.09	5,317	14.7	0.19	5.60	5,747

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Area	10.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	10.4	0.74	0.83	0.01	0.01	0.33	0.01	0.09	5,267	14.7	0.19	3.25	5,695
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.70	0.83	0.01	0.01	0.31	0.01	0.09	732	0.01	0.09	1.02	760
Area	10.8	0.06	6.38	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.1	< 0.005	< 0.005	—	17.1
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	10.9	0.77	7.21	0.01	0.01	0.32	0.01	0.09	5,272	14.7	0.19	4.20	5,700
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126
Area	1.98	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	701	0.07	0.01	—	705
Water	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2
Waste	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53
Total	2.00	0.14	1.32	< 0.005	< 0.005	0.06	< 0.005	0.02	873	2.44	0.03	0.70	944

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	10.2	9.42	0.02	0.44	0.44	0.41	0.41	1,668	0.07	0.01	—	1,674
Dust From Material Movement	—	—	—	—	—	6.55	—	3.37	—	—	—	—	—
Onsite truck	0.00	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	0.25	0.23	< 0.005	0.01	0.01	0.01	0.01	41.1	< 0.005	< 0.005	—	41.3
Dust From Material Movement	—	—	—	—	—	0.16	—	0.08	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.81	< 0.005	< 0.005	—	6.83
Dust From Material Movement	—	—	—	—	—	0.03	—	0.02	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.24	0.00	0.00	0.04	0.00	0.01	39.1	< 0.005	< 0.005	< 0.005	39.7
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
Hauling	0.00	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	0.01	0.00	0.00	< 0.005	0.00	< 0.005	1.00	< 0.005	< 0.005	< 0.005	1.02
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
Hauling	0.00	0.00	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	0.00	0.00	< 0.005	0.00	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.17
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
Hauling	0.00	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 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	27.7	25.4	0.06	1.17	1.17	1.07	1.07	6,167	0.25	0.05	—	6,188
Dust From Material Movement	—	—	—	—	—	9.20	—	3.65	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	27.7	25.4	0.06	1.17	1.17	1.07	1.07	6,167	0.25	0.05	—	6,188
Dust From Material Movement	—	—	—	—	—	9.20	—	3.65	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.18	3.83	0.01	0.18	0.18	0.16	0.16	929	0.04	0.01	—	932
Dust From Material Movement	—	—	—	—	—	1.39	—	0.55	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.76	0.70	< 0.005	0.03	0.03	0.03	0.03	154	0.01	< 0.005	—	154
Dust From Material Movement	—	—	—	—	—	0.25	—	0.10	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.99	0.00	0.00	0.12	0.00	0.03	133	0.01	0.01	0.51	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07	0.08	0.73	0.00	0.00	0.12	0.00	0.03	117	0.01	0.01	0.01	119
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
Hauling	0.00	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	0.12	0.00	0.00	0.02	0.00	< 0.005	18.3	< 0.005	< 0.005	0.03	18.6
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
Hauling	0.00	0.00	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	0.02	0.00	0.00	< 0.005	0.00	< 0.005	3.04	< 0.005	< 0.005	0.01	3.08
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
Hauling	0.00	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 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	2.49	2.54	0.01	0.10	0.10	0.10	0.10	537	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.27	2.49	2.54	0.01	0.10	0.10	0.10	0.10	537	0.02	< 0.005	—	538
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	1.04	1.06	< 0.005	0.04	0.04	0.04	0.04	225	0.01	< 0.005	—	225
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.19	< 0.005	0.01	0.01	0.01	0.01	37.2	< 0.005	< 0.005	—	37.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.34	5.41	0.00	0.00	0.66	0.00	0.16	727	0.04	0.03	2.81	739
Vendor	0.02	0.78	0.28	< 0.005	0.01	0.16	0.01	0.05	570	0.01	0.08	1.55	597
Hauling	0.00	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	0.40	0.41	3.97	0.00	0.00	0.66	0.00	0.16	642	0.04	0.03	0.07	651
Vendor	0.02	0.83	0.29	< 0.005	0.01	0.16	0.01	0.05	570	0.01	0.08	0.04	596
Hauling	0.00	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	0.17	0.16	1.77	0.00	0.00	0.27	0.00	0.06	279	0.02	0.01	0.51	283
Vendor	0.01	0.34	0.12	< 0.005	< 0.005	0.07	< 0.005	0.02	239	< 0.005	0.04	0.28	250
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.05	0.00	0.01	46.2	< 0.005	< 0.005	0.08	46.9
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	< 0.005	< 0.005	39.5	< 0.005	0.01	0.05	41.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. 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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.38	2.52	0.01	0.10	0.10	0.09	0.09	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.26	2.38	2.52	0.01	0.10	0.10	0.09	0.09	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.19	1.70	1.80	< 0.005	0.07	0.07	0.06	0.06	383	0.02	< 0.005	—	385
Onsite truck	0.00	0.00	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	0.31	0.33	< 0.005	0.01	0.01	0.01	0.01	63.4	< 0.005	< 0.005	—	63.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.29	4.98	0.00	0.00	0.66	0.00	0.16	711	0.04	0.03	2.56	723
Vendor	0.02	0.75	0.27	< 0.005	0.01	0.16	0.01	0.05	559	0.01	0.08	1.38	586
Hauling	0.00	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	0.36	0.39	3.66	0.00	0.00	0.66	0.00	0.16	628	0.04	0.03	0.07	638
Vendor	0.02	0.80	0.28	< 0.005	0.01	0.16	0.01	0.05	560	0.01	0.08	0.04	585
Hauling	0.00	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	0.28	0.24	2.78	0.00	0.00	0.47	0.00	0.11	466	0.03	0.02	0.79	473
Vendor	0.01	0.56	0.19	< 0.005	0.01	0.11	0.01	0.04	400	0.01	0.06	0.43	418
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.51	0.00	0.00	0.08	0.00	0.02	77.1	< 0.005	< 0.005	0.13	78.4
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	< 0.005	0.01	66.2	< 0.005	0.01	0.07	69.2
Hauling	0.00	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 (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.29	2.52	0.01	0.09	0.09	0.08	0.08	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.26	2.29	2.52	0.01	0.09	0.09	0.08	0.08	536	0.02	< 0.005	—	538

Onsite truck	0.00	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	0.18	1.64	1.80	< 0.005	0.06	0.06	0.06	0.06	383	0.02	< 0.005	—	384
Onsite truck	0.00	0.00	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	0.30	0.33	< 0.005	0.01	0.01	0.01	0.01	63.4	< 0.005	< 0.005	—	63.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.27	4.58	0.00	0.00	0.66	0.00	0.16	697	0.04	0.03	2.32	708
Vendor	0.02	0.71	0.26	< 0.005	0.01	0.16	0.01	0.05	548	0.01	0.08	1.23	574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.34	3.35	0.00	0.00	0.66	0.00	0.16	616	0.02	0.03	0.06	625
Vendor	0.02	0.76	0.27	< 0.005	0.01	0.16	0.01	0.05	548	0.01	0.08	0.03	574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	2.56	0.00	0.00	0.47	0.00	0.11	456	0.03	0.02	0.71	464
Vendor	0.01	0.53	0.19	< 0.005	0.01	0.11	0.01	0.04	391	0.01	0.06	0.38	410
Hauling	0.00	0.00	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	0.04	0.47	0.00	0.00	0.08	0.00	0.02	75.6	< 0.005	< 0.005	0.12	76.8
Vendor	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	< 0.005	0.01	64.8	< 0.005	0.01	0.06	67.8

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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3.11. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.31	4.95	0.01	0.13	0.13	0.12	0.12	756	0.03	0.01	—	758
Paving	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.29	< 0.005	0.01	0.01	0.01	0.01	43.5	< 0.005	< 0.005	—	43.6
Paving	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.20	< 0.005	< 0.005	—	7.22
Paving	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.28	0.00	0.00	0.06	0.00	0.01	55.2	< 0.005	< 0.005	< 0.005	56.0
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
Hauling	0.00	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	0.02	0.00	0.00	< 0.005	0.00	< 0.005	3.29	< 0.005	< 0.005	< 0.005	3.34
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
Hauling	0.00	0.00	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	0.00	0.00	< 0.005	0.00	< 0.005	0.55	< 0.005	< 0.005	< 0.005	0.55
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
Hauling	0.00	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.81	1.12	< 0.005	0.02	0.02	0.01	0.01	134	0.01	< 0.005	—	134
Architectural Coatings	139	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	7.62	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	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	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.39	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	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	0.06	0.06	0.62	0.00	0.00	0.13	0.00	0.03	121	< 0.005	0.01	0.01	122
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	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	0.04	0.00	0.00	0.01	0.00	< 0.005	6.86	< 0.005	< 0.005	0.01	6.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	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	0.01	0.00	0.00	< 0.005	0.00	< 0.005	1.14	< 0.005	< 0.005	< 0.005	1.15
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

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Total	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Total	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126
Total	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Total	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Total	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	701	0.07	0.01	—	705
Total	—	—	—	—	—	—	—	—	701	0.07	0.01	—	705

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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
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

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
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
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
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

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	0.00	—	0.00
Consumer Products	9.51	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.15	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Total	11.4	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consumer Products	9.51	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—	—	—
Total	10.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	1.74	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83
Total	1.98	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Total	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Total	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2
Total	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Total	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Total	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8
Total	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53
Total	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestere	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestere d	—	—	—	—	—	—	—	—	—	—	—	—	—
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	3/4/2025	3/15/2025	5.00	9.00	—
Grading	Grading	3/16/2025	5/31/2025	5.00	55.0	—
Building Construction	Building Construction	6/1/2025	12/31/2027	5.00	675	—
Paving	Paving	1/1/2028	1/31/2028	5.00	21.0	—
Architectural Coating	Architectural Coating	2/1/2028	2/28/2028	5.00	20.0	—

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	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	1.00	4.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	2.00	367	0.29
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	3.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.4	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.43	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Grading	—	—	—	—
Grading	Worker	15.0	11.4	LDA,LDT1,LDT2
Grading	Vendor	—	7.43	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	82.1	11.4	LDA,LDT1,LDT2
Building Construction	Vendor	24.4	7.43	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	7.50	11.4	LDA,LDT1,LDT2
Paving	Vendor	—	7.43	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	16.4	11.4	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.43	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	900,315	300,105	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	—	—	4.50	0.00	—
Grading	—	—	165	0.00	—
Paving	0.00	0.00	0.00	0.00	2.51

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	2.51	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
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	2,152	2,175	1,949	776,205	18,715	18,914	16,951	6,749,483

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	0
No Fireplaces	228
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)
900315	300,105	0.00	0.00	—

5.10.3. Landscape Equipment

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	4,466,189	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	9,704,284	47,105,797

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	230	—

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
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	32.4	annual days of extreme heat
Extreme Precipitation	0.60	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 $\frac{3}{4}$ 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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	97.9
AQ-DPM	22.7
Drinking Water	79.0
Lead Risk Housing	45.6
Pesticides	80.2
Toxic Releases	36.4
Traffic	4.76
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	80.5
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	79.6
Cardio-vascular	93.1
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—

Education	91.6
Housing	55.1
Linguistic	94.8
Poverty	84.9
Unemployment	63.4

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	12.83202874
Employed	20.45425382
Median HI	18.70909791
Education	—
Bachelor's or higher	2.746054151
High school enrollment	100
Preschool enrollment	44.86077249
Transportation	—
Auto Access	45.25856538
Active commuting	12.97318106
Social	—
2-parent households	42.39702297
Voting	12.19042731
Neighborhood	—
Alcohol availability	60.19504684
Park access	52.12370076
Retail density	9.072244322
Supermarket access	26.20300269

Tree canopy	4.812010779
Housing	—
Homeownership	45.46387784
Housing habitability	43.2567689
Low-inc homeowner severe housing cost burden	45.7590145
Low-inc renter severe housing cost burden	38.6629026
Uncrowded housing	24.97112794
Health Outcomes	—
Insured adults	24.03438984
Arthritis	0.0
Asthma ER Admissions	16.0
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	1.8
Cognitively Disabled	85.7
Physically Disabled	76.0
Heart Attack ER Admissions	13.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
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	14.1
Elderly	80.7
English Speaking	22.0
Foreign-born	57.2
Outdoor Workers	24.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.7
Traffic Density	10.6
Traffic Access	0.0
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	17.5

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)	16.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Suburban setting
Characteristics: Utility Information	The electric provider is Southern California Edison
Land Use	Site is 57.3 acres
Construction: Construction Phases	No demolition is required. Project-specific construction schedule entered.
Construction: Off-Road Equipment	Project-specific construction equipment entered.
Operations: Fleet Mix	Utilized SJVAPCD approved fleet mix for residential projects (operational year 2026)
Operations: Hearths	Project does not include any gas or wood hearths.
Operations: Energy Use	Project will not be connected to natural gas. Electricity consumption was adjusted to account for the energy that would have been provided by natural gas.

Appendix B. AERMOD and ADMRT Results

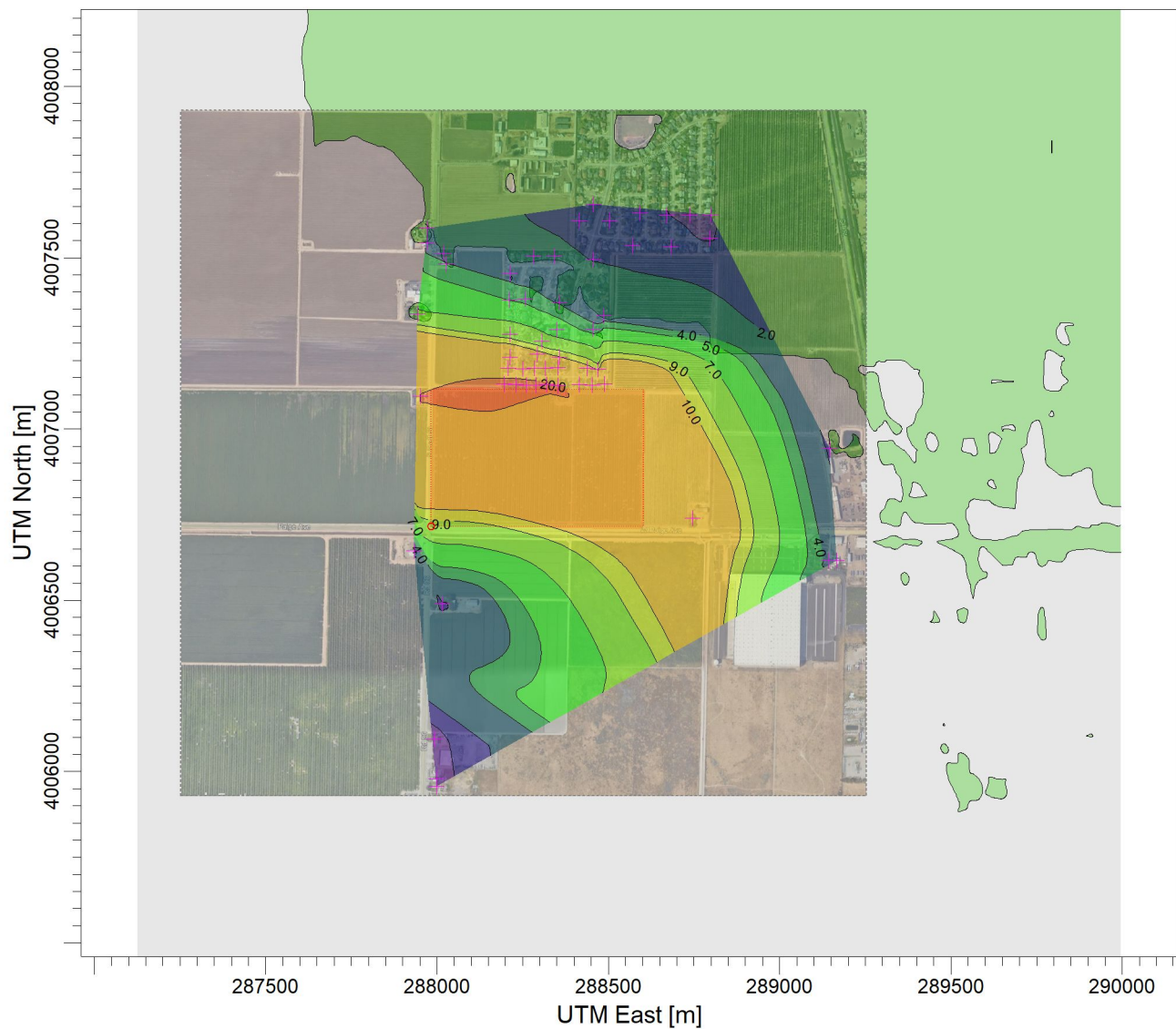
Prepared by Core Environmental Consulting:

Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA

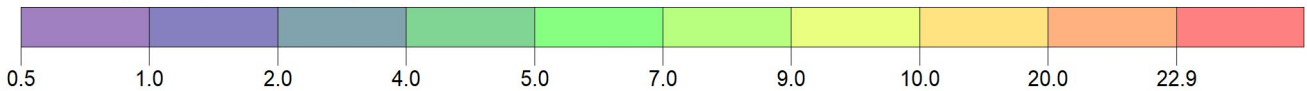
September 2024




Lekkerkerker HRA
Appendix B - AERMOD and ADMRT Results
Receptor Map



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 4 YEARS FOR SOURCE GROUP: AREA1
Max: 22.9 [ug/m^3] at (288196.55, 4007130.97)



COMMENTS:	SOURCES: 1	COMPANY NAME:	
	RECEPTORS: 56	MODELER:	
	OUTPUT TYPE: Concentration	SCALE: 1:20,115 0  0.5 km	
	MAX: 22.9 ug/m^3	DATE: 9/9/2024	PROJECT NO.:

**HARP - Air Dispersion Modeling and Risk Tool v22118

**9/9/2024

**Exported Risk Results

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RIS	SOIL_RISK	DERMAL_R
1	ALL	---	288196.6	4007131	1.11E-05	4YrCancer	1.11E-05	0	0
2	ALL	---	288229.2	4007129	1.10E-05	4YrCancer	1.10E-05	0	0
3	ALL	---	288261.1	4007128	1.09E-05	4YrCancer	1.09E-05	0	0
4	ALL	---	288289.5	4007128	1.06E-05	4YrCancer	1.06E-05	0	0
5	ALL	---	288319.7	4007129	1.02E-05	4YrCancer	1.02E-05	0	0
6	ALL	---	288352.4	4007127	1.00E-05	4YrCancer	1.00E-05	0	0
7	ALL	---	288416	4007129	8.83E-06	4YrCancer	8.83E-06	0	0
8	ALL	---	288453.7	4007128	8.14E-06	4YrCancer	8.14E-06	0	0
9	ALL	---	288488.9	4007131	7.10E-06	4YrCancer	7.10E-06	0	0
10	ALL	---	288470.5	4007175	4.69E-06	4YrCancer	4.69E-06	0	0
11	ALL	---	288437	4007178	5.13E-06	4YrCancer	5.13E-06	0	0
12	ALL	---	288352.4	4007180	6.24E-06	4YrCancer	6.24E-06	0	0
13	ALL	---	288317.2	4007177	6.76E-06	4YrCancer	6.76E-06	0	0
14	ALL	---	288283.7	4007178	7.03E-06	4YrCancer	7.03E-06	0	0
15	ALL	---	288251	4007176	7.40E-06	4YrCancer	7.40E-06	0	0
16	ALL	---	288207.4	4007178	7.57E-06	4YrCancer	7.57E-06	0	0
17	ALL	---	288212.5	4007211	6.00E-06	4YrCancer	6.00E-06	0	0
18	ALL	---	288292.9	4007218	5.16E-06	4YrCancer	5.16E-06	0	0
19	ALL	---	288357.4	4007210	4.84E-06	4YrCancer	4.84E-06	0	0
20	ALL	---	288213.3	4007276	4.01E-06	4YrCancer	4.01E-06	0	0
21	ALL	---	288307.1	4007257	3.88E-06	4YrCancer	3.88E-06	0	0
22	ALL	---	288349	4007289	2.90E-06	4YrCancer	2.90E-06	0	0
23	ALL	---	288455.4	4007292	2.10E-06	4YrCancer	2.10E-06	0	0
24	ALL	---	288487	4007331	1.57E-06	4YrCancer	1.57E-06	0	0
25	ALL	---	288357.2	4007371	1.86E-06	4YrCancer	1.86E-06	0	0
26	ALL	---	288257.5	4007381	2.19E-06	4YrCancer	2.19E-06	0	0
27	ALL	---	288210.6	4007377	2.41E-06	4YrCancer	2.41E-06	0	0
28	ALL	---	288213.1	4007453	1.73E-06	4YrCancer	1.73E-06	0	0
29	ALL	---	288281.8	4007505	1.26E-06	4YrCancer	1.26E-06	0	0
30	ALL	---	288342.9	4007504	1.14E-06	4YrCancer	1.14E-06	0	0
31	ALL	---	288456	4007494	9.47E-07	4YrCancer	9.47E-07	0	0
32	ALL	---	288415.1	4007609	7.36E-07	4YrCancer	7.36E-07	0	0
33	ALL	---	288503.8	4007609	6.42E-07	4YrCancer	6.42E-07	0	0
34	ALL	---	288592.4	4007630	5.38E-07	4YrCancer	5.38E-07	0	0
35	ALL	---	288671.6	4007624	4.89E-07	4YrCancer	4.89E-07	0	0
36	ALL	---	288737	4007624	4.46E-07	4YrCancer	4.46E-07	0	0
37	ALL	---	288798.4	4007625	4.06E-07	4YrCancer	4.06E-07	0	0
38	ALL	---	288797.1	4007558	4.48E-07	4YrCancer	4.48E-07	0	0
39	ALL	---	288683.8	4007532	5.69E-07	4YrCancer	5.69E-07	0	0
40	ALL	---	288570.6	4007535	6.86E-07	4YrCancer	6.86E-07	0	0

41 ALL	---	287933.3	4006644	1.30E-06	4YrCancer	1.30E-06	0	0
42 ALL	---	288015.8	4006489	8.76E-07	4YrCancer	8.76E-07	0	0
43 ALL	---	287991.2	4006094	3.01E-07	4YrCancer	3.01E-07	0	0
44 ALL	---	287998.6	4005978	2.55E-07	4YrCancer	2.55E-07	0	0
45 ALL	---	287998.6	4005957	2.48E-07	4YrCancer	2.48E-07	0	0
46 ALL	---	288745.7	4006739	6.64E-06	4YrCancer	6.64E-06	0	0
47 ALL	---	289143.4	4006616	1.78E-06	4YrCancer	1.78E-06	0	0
48 ALL	---	289166	4006616	1.67E-06	4YrCancer	1.67E-06	0	0
49 ALL	---	289145.7	4006943	8.41E-07	4YrCancer	8.41E-07	0	0
50 ALL	---	287952.9	4007096	9.91E-06	4YrCancer	9.91E-06	0	0
51 ALL	---	287943	4007336	3.51E-06	4YrCancer	3.51E-06	0	0
52 ALL	---	288017.9	4007512	1.77E-06	4YrCancer	1.77E-06	0	0
53 ALL	---	288028	4007483	1.95E-06	4YrCancer	1.95E-06	0	0
54 ALL	---	287971.1	4007544	1.67E-06	4YrCancer	1.67E-06	0	0
55 ALL	---	287971.8	4007587	1.46E-06	4YrCancer	1.46E-06	0	0

[illegible]

[illegible]

```

**
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** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 9/9/2024
** File: C:\Lakes\AERMOD View\Lekkerkerker\Lekkerkerker.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\Lekkerkerker\Lekkerkerker.isc
  MODELOPT DFAULT CONC
  AVERTIME 1 ANNUAL
  POLLUTID OTHER
  RUNORNOT RUN
  ERRORFIL Lekkerkerker.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION AREA1          AREA          287982.720  4006715.850
78.380
** Source Parameters **
  SRCPARAM AREA1          4.1667E-06          4.000  620.000  400.000
0.000  0.000
  SRCGROUP AREA1          AREA1
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
** DESCRREC " " " "
  DISCCART 288196.55 4007130.97 79.50 79.50
  DISCCART 288229.22 4007129.29 79.47 79.47
  DISCCART 288261.05 4007128.46 79.47 79.47

```

DISCCART	288289.53	4007128.46	79.44	79.44
DISCCART	288319.69	4007129.29	79.34	79.34
DISCCART	288352.36	4007126.78	79.30	79.30
DISCCART	288416.03	4007129.29	79.26	79.26
DISCCART	288453.73	4007128.46	79.61	79.61
DISCCART	288488.91	4007130.97	79.83	79.83
DISCCART	288470.48	4007174.53	79.75	79.75
DISCCART	288436.98	4007177.88	79.36	79.36
DISCCART	288352.36	4007179.56	79.37	79.37
DISCCART	288317.18	4007177.04	79.47	79.47
DISCCART	288283.67	4007177.88	79.51	79.51
DISCCART	288251.00	4007176.21	79.45	79.45
DISCCART	288207.44	4007177.88	79.64	79.64
DISCCART	288212.46	4007210.55	79.58	79.58
DISCCART	288292.89	4007218.09	79.00	79.00
DISCCART	288357.39	4007209.72	79.02	79.02
DISCCART	288213.30	4007275.90	79.59	79.59
DISCCART	288307.13	4007256.63	79.51	79.51
DISCCART	288349.01	4007289.30	79.46	79.46
DISCCART	288455.41	4007291.81	79.66	79.66
DISCCART	288487.03	4007330.52	80.42	80.42
DISCCART	288357.18	4007370.73	80.11	80.11
DISCCART	288257.48	4007380.78	79.92	79.92
DISCCART	288210.57	4007376.60	79.85	79.85
DISCCART	288213.08	4007452.83	80.05	80.05
DISCCART	288281.78	4007504.77	80.39	80.39
DISCCART	288342.93	4007503.94	80.26	80.26
DISCCART	288456.03	4007493.88	80.68	80.68
DISCCART	288415.08	4007608.65	81.24	81.24
DISCCART	288503.76	4007608.65	81.10	81.10
DISCCART	288592.43	4007630.47	81.01	81.01
DISCCART	288671.55	4007623.65	81.11	81.11
DISCCART	288737.03	4007623.65	81.19	81.19
DISCCART	288798.42	4007625.02	81.38	81.38
DISCCART	288797.05	4007558.17	81.21	81.21
DISCCART	288683.83	4007532.25	80.59	80.59
DISCCART	288570.60	4007534.98	80.50	80.50
DISCCART	287933.32	4006644.38	77.85	77.85
DISCCART	288015.84	4006489.20	77.60	77.60
DISCCART	287991.21	4006093.85	76.89	76.89
DISCCART	287998.60	4005978.08	76.62	76.62
DISCCART	287998.60	4005957.14	76.66	76.66
DISCCART	288745.69	4006739.16	78.60	78.60
DISCCART	289143.36	4006616.12	79.18	79.18
DISCCART	289165.97	4006616.12	79.06	79.06
DISCCART	289145.65	4006943.32	79.84	79.84
DISCCART	287952.85	4007095.62	78.93	78.93
DISCCART	287943.02	4007336.36	80.53	80.53
DISCCART	288017.94	4007512.37	80.09	80.09
DISCCART	288027.98	4007482.91	80.00	80.00
DISCCART	287971.08	4007543.83	80.00	80.00
DISCCART	287971.75	4007586.67	80.12	80.12

```

DISCCART      288457.23    4007656.54    80.98    80.98
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 Lekkerkerker.AD\01H1G001.PLT 31
PLOTFILE ANNUAL AREA1 Lekkerkerker.AD\AN00G001.PLT 32
SUMMFILE Lekkerkerker.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      117      MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

```

```

*****
*** SETUP Finishes Successfully ***
*****

```



```

*** AERMOD - VERSION 23132 ***      *** C:\Lakes\AERMOD View
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*** AERMET - VERSION 21112 ***      ***
***      18:15:02

```

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```

*** 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      56 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: Lekkerkerker.err
**File for Summary of Results: Lekkerkerker.sum

```

```

*** AERMOD - VERSION 23132 ***    *** C:\Lakes\AERMOD View
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```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** AREA SOURCE

DATA ***

RELEASE RATE	X-DIM AIRCRAFT	NUMBER Y-DIM PART.	EMISSION (GRAMS/SEC OF AREA)	RATE ORIENT.	COORD INIT.	(SW CORNER) URBAN	BASE EMISSION ELEV. SCALAR
SOURCE	HEIGHT OF AREA	OF AREA	OF AREA		SZ	Y SOURCE	
ID	CATS.	/METER**2)	(METERS)	(METERS)	(METERS)	(METERS)	BY
(METERS)	(METERS)	(METERS)	(DEG.)	(METERS)			
AREA1	0	0.41667E-05	287982.7	4006715.8	78.4		
4.00	620.00	400.00	0.00	0.00	NO		
NO							

```

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```

```

PAGE      3
*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

```

*** SOURCE IDs
DEFINING SOURCE GROUPS ***

SRCGROUP ID                                SOURCE
IDs
-----
---

AREA1      AREA1      ,

```

```

*** AERMOD - VERSION 23132 *** *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE

CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD,

ZELEV, ZHILL, ZFLAG)

(METERS)

```

( 288196.5, 4007131.0, 79.5, 79.5, 0.0);
( 288229.2, 4007129.3, 79.5, 79.5, 0.0);
( 288261.0, 4007128.5, 79.5, 79.5, 0.0);
( 288289.5, 4007128.5, 79.4, 79.4, 0.0);
( 288319.7, 4007129.3, 79.3, 79.3, 0.0);
( 288352.4, 4007126.8, 79.3, 79.3, 0.0);
( 288416.0, 4007129.3, 79.3, 79.3, 0.0);
( 288453.7, 4007128.5, 79.6, 79.6, 0.0);
( 288488.9, 4007131.0, 79.8, 79.8, 0.0);
( 288470.5, 4007174.5, 79.8, 79.8, 0.0);
( 288437.0, 4007177.9, 79.4, 79.4, 0.0);
( 288352.4, 4007179.6, 79.4, 79.4, 0.0);
( 288317.2, 4007177.0, 79.5, 79.5, 0.0);
( 288283.7, 4007177.9, 79.5, 79.5, 0.0);
( 288251.0, 4007176.2, 79.5, 79.5, 0.0);
( 288207.4, 4007177.9, 79.6, 79.6, 0.0);
( 288212.5, 4007210.5, 79.6, 79.6, 0.0);
( 288292.9, 4007218.1, 79.0, 79.0, 0.0);
( 288357.4, 4007209.7, 79.0, 79.0, 0.0);
( 288213.3, 4007275.9, 79.6, 79.6, 0.0);
( 288307.1, 4007256.6, 79.5, 79.5, 0.0);
( 288349.0, 4007289.3, 79.5, 79.5, 0.0);
( 288455.4, 4007291.8, 79.7, 79.7, 0.0);
( 288487.0, 4007330.5, 80.4, 80.4, 0.0);
( 288357.2, 4007370.7, 80.1, 80.1, 0.0);
( 288257.5, 4007380.8, 79.9, 79.9, 0.0);
( 288210.6, 4007376.6, 79.8, 79.8, 0.0);
( 288213.1, 4007452.8, 80.0, 80.0, 0.0);
( 288281.8, 4007504.8, 80.4, 80.4, 0.0);
( 288342.9, 4007503.9, 80.3, 80.3, 0.0);
( 288456.0, 4007493.9, 80.7, 80.7, 0.0);
( 288415.1, 4007608.6, 81.2, 81.2, 0.0);
( 288503.8, 4007608.6, 81.1, 81.1, 0.0);
( 288592.4, 4007630.5, 81.0, 81.0, 0.0);
( 288671.5, 4007623.6, 81.1, 81.1, 0.0);
( 288737.0, 4007623.6, 81.2, 81.2, 0.0);

```

```

( 288798.4, 4007625.0,      81.4,      81.4,      0.0);
( 288797.0, 4007558.2,      81.2,      81.2,      0.0);
( 288683.8, 4007532.2,      80.6,      80.6,      0.0);
( 288570.6, 4007535.0,      80.5,      80.5,      0.0);
( 287933.3, 4006644.4,      77.8,      77.8,      0.0);
( 288015.8, 4006489.2,      77.6,      77.6,      0.0);
( 287991.2, 4006093.8,      76.9,      76.9,      0.0);
( 287998.6, 4005978.1,      76.6,      76.6,      0.0);
( 287998.6, 4005957.1,      76.7,      76.7,      0.0);
( 288745.7, 4006739.2,      78.6,      78.6,      0.0);
( 289143.4, 4006616.1,      79.2,      79.2,      0.0);
( 289166.0, 4006616.1,      79.1,      79.1,      0.0);
( 289145.6, 4006943.3,      79.8,      79.8,      0.0);
( 287952.8, 4007095.6,      78.9,      78.9,      0.0);
( 287943.0, 4007336.4,      80.5,      80.5,      0.0);
( 288017.9, 4007512.4,      80.1,      80.1,      0.0);
( 288028.0, 4007482.9,      80.0,      80.0,      0.0);
( 287971.1, 4007543.8,      80.0,      80.0,      0.0);
( 287971.8, 4007586.7,      80.1,      80.1,      0.0);
( 288457.2, 4007656.5,      81.0,      81.0,      0.0);

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** 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

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)

5.14, 8.23, 10.80, 1.54, 3.09,

12

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)

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*** 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 ***

MICROGRAMS/M**3 ** CONC OF OTHER IN
 **

X-COORD (M)	Y-COORD (M)	CONC
288196.55	4007130.97	22.87732
288229.22	4007129.29	22.79159
288261.05	4007128.46	22.46145
288289.53	4007128.46	21.94480
288319.69	4007129.29	21.16203
288352.36	4007126.78	20.72866
288416.03	4007129.29	18.27702
288453.73	4007128.46	16.85137
288488.91	4007130.97	14.70320
288470.48	4007174.53	9.70989
288436.98	4007177.88	10.61603
288352.36	4007179.56	12.90680
288317.18	4007177.04	13.99291
288283.67	4007177.88	14.55588
288251.00	4007176.21	15.30674
288207.44	4007177.88	15.67457
288212.46	4007210.55	12.41824
288292.89	4007218.09	10.67495
288357.39	4007209.72	10.02323
288213.30	4007275.90	8.30870
288307.13	4007256.63	8.01986
288349.01	4007289.30	5.99406
288455.41	4007291.81	4.34281
288487.03	4007330.52	3.24377
288357.18	4007370.73	3.85523
288257.48	4007380.78	4.52238
288210.57	4007376.60	4.97743
288213.08	4007452.83	3.58263

	288281.78	4007504.77	2.61617
288342.93	4007503.94	2.35012	
	288456.03	4007493.88	1.95972
288415.08	4007608.65	1.52349	
	288503.76	4007608.65	1.32912
288592.43	4007630.47	1.11360	
	288671.55	4007623.65	1.01273
288737.03	4007623.65	0.92279	
	288798.42	4007625.02	0.83960
288797.05	4007558.17	0.92637	
	288683.83	4007532.25	1.17836
288570.60	4007534.98	1.41929	
	287933.32	4006644.38	2.68497
288015.84	4006489.20	1.81322	
	287991.21	4006093.85	0.62256
287998.60	4005978.08	0.52857	
	287998.60	4005957.14	0.51331
288745.69	4006739.16	13.73212	
	289143.36	4006616.12	3.68806
289165.97	4006616.12	3.46510	
	289145.65	4006943.32	1.74066
287952.85	4007095.62	20.51194	
	287943.02	4007336.36	7.26044
288017.94	4007512.37	3.67261	
	288027.98	4007482.91	4.02518
287971.08	4007543.83	3.45358	
	287971.75	4007586.67	3.02958
288457.23	4007656.54	1.27270	

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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 ***

MICROGRAMS/M**3 ** CONC OF OTHER IN
 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
288196.55	4007130.97	206.72894	(07120103)
288229.22	4007129.29	196.45628	(07120103)
288261.05	4007128.46	184.73360	(07120103)
288289.53	4007128.46	172.89798	(07120103)
288319.69	4007129.29	159.08530	(07120103)
288352.36	4007126.78	159.97774	(07120723)
288416.03	4007129.29	170.76131	(07120723)
288453.73	4007128.46	177.50641	(07011624)
288488.91	4007130.97	184.11821	(07011624)
288470.48	4007174.53	162.36698	(07120723)
288436.98	4007177.88	156.97868	(07120723)
288352.36	4007179.56	149.36291	(07030701)
288317.18	4007177.04	148.43440	(08122707)
288283.67	4007177.88	151.61155	(09120603)
288251.00	4007176.21	160.55854	(07120103)
288207.44	4007177.88	175.53944	(07120103)
288212.46	4007210.55	147.26884	(07120103)
288292.89	4007218.09	137.52980	(08122707)
288357.39	4007209.72	138.74122	(07030701)
288213.30	4007275.90	125.47644	(07121918)
288307.13	4007256.63	125.51779	(08022904)
288349.01	4007289.30	117.15596	(08010724)
288455.41	4007291.81	118.80980	(07030701)
288487.03	4007330.52	110.69099	(07030701)
288357.18	4007370.73	102.27634	(08010801)
288257.48	4007380.78	102.43632	(09031206)
288210.57	4007376.60	103.98370	(08012903)

288213.08	4007452.83	93.29511	(09031206)
	288281.78	4007504.77	86.62585 (09120305)
288342.93	4007503.94	86.34854	(08012607)
	288456.03	4007493.88	86.10318 (09123023)
288415.08	4007608.65	76.72853	(09123023)
	288503.76	4007608.65	72.05549 (08022922)
288592.43	4007630.47	69.56862	(09012903)
	288671.55	4007623.65	75.36444 (07030701)
288737.03	4007623.65	77.33199	(07030701)
	288798.42	4007625.02	77.96296 (07042203)
288797.05	4007558.17	83.76870	(07042203)
	288683.83	4007532.25	85.29863 (07030701)
288570.60	4007534.98	80.38882	(07030701)
	287933.32	4006644.38	172.11570 (10013004)
288015.84	4006489.20	116.15485	(07012603)
	287991.21	4006093.85	70.32696 (08120802)
287998.60	4005978.08	64.17839	(07122304)
	287998.60	4005957.14	63.22912 (07122304)
288745.69	4006739.16	170.00668	(09011005)
	289143.36	4006616.12	106.23272 (09011005)
289165.97	4006616.12	104.29210	(09011005)
	289145.65	4006943.32	105.87350 (08121922)
287952.85	4007095.62	213.45935	(07120103)
	287943.02	4007336.36	142.45171 (07120103)
288017.94	4007512.37	90.66046	(07121918)
	288027.98	4007482.91	94.14549 (09120603)
287971.08	4007543.83	88.34661	(07011222)
	287971.75	4007586.67	83.68482 (07121918)
288457.23	4007656.54	72.48945	(08022922)

```

*** AERMOD - VERSION 23132 *** *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc ***
09/09/24
*** AERMET - VERSION 21112 *** ***
*** 18:15:02

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PAGE 9

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

ANNUAL RESULTS AVERAGED OVER 4 YEARS *** THE SUMMARY OF MAXIMUM

MICROGRAMS/M**3 ** CONC OF OTHER IN **

NETWORK

GROUP ID	AVERAGE CONC			
RECEPTOR	(XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID	
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

AREA1	1ST HIGHEST VALUE IS	22.87732 AT (	288196.55,
4007130.97,	79.50, 79.50,	0.00) DC	
	2ND HIGHEST VALUE IS	22.79159 AT (	288229.22,
4007129.29,	79.47, 79.47,	0.00) DC	
	3RD HIGHEST VALUE IS	22.46145 AT (	288261.05,
4007128.46,	79.47, 79.47,	0.00) DC	
	4TH HIGHEST VALUE IS	21.94480 AT (	288289.53,
4007128.46,	79.44, 79.44,	0.00) DC	
	5TH HIGHEST VALUE IS	21.16203 AT (	288319.69,
4007129.29,	79.34, 79.34,	0.00) DC	
	6TH HIGHEST VALUE IS	20.72866 AT (	288352.36,
4007126.78,	79.30, 79.30,	0.00) DC	
	7TH HIGHEST VALUE IS	20.51194 AT (	287952.85,
4007095.62,	78.93, 78.93,	0.00) DC	
	8TH HIGHEST VALUE IS	18.27702 AT (	288416.03,
4007129.29,	79.26, 79.26,	0.00) DC	
	9TH HIGHEST VALUE IS	16.85137 AT (	288453.73,
4007128.46,	79.61, 79.61,	0.00) DC	
	10TH HIGHEST VALUE IS	15.67457 AT (	288207.44,
4007177.88,	79.64, 79.64,	0.00) DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

```

*** AERMOD - VERSION 23132 ***    *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc    ***
09/09/24
*** AERMET - VERSION 21112 ***    ***
***      18:15:02

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PAGE 10

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*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

*** THE SUMMARY

OF HIGHEST 1-HR RESULTS ***

```

MICROGRAMS/M**3      ** CONC OF OTHER      IN
                      **

```

```

                                DATE
NETWORK
GROUP ID                        AVERAGE CONC      (YYMMDDHH)
RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID
- - - - -
- - - - -

```

```

AREA1      HIGH      1ST HIGH VALUE IS      213.45935 ON 07120103: AT
( 287952.85, 4007095.62, 78.93, 78.93, 0.00) DC

```

```

*** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR

```

```

*** AERMOD - VERSION 23132 ***    *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc    ***
09/09/24
*** AERMET - VERSION 21112 ***    ***
***      18:15:02

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PAGE 11

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*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

```

A Total of           0 Fatal Error Message(s)
A Total of           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      117      MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

```

```

*****
*** AERMOD Finishes Successfully ***
*****

```

HARP2 - HRACalc (dated 22118) 9/9/2024 6:31:35 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 4

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 2
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to:

C:\Users\geniu\OneDrive\Desktop\24006 - Lekkerkerker

HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRACancerRisk.csv

Cancer risk total by receptor saved to: C:\Users\geniu\OneDrive\Desktop\24006 -

Lekkerkerker HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRACancerRiskSumByRec.csv

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to:

C:\Users\geniu\OneDrive\Desktop\24006 - Lekkerkerker

HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCCChronicRisk.csv

Chronic risk total by receptor saved to: C:\Users\geniu\OneDrive\Desktop\24006 -

Lekkerkerker HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCCChronicRiskSumByRec.csv

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to:

C:\Users\geniu\OneDrive\Desktop\24006 - Lekkerkerker

HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCAcuteRisk.csv

Acute risk total by receptor saved to: C:\Users\geniu\OneDrive\Desktop\24006 -

Lekkerkerker HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCAcuteRiskSumByRec.csv

HRA ran successfully

Appendix B

Health Risk Assessment

Technical Report
Health Risk Assessment
For California Environmental Quality Act (CEQA)

Project Name:
Lekkerkerker Subdivision
Tulare, CA

Prepared for:
4Creeks, Inc.
Visalia, CA

Author:
Core Environmental Consulting
Clovis, CA

Lead Agency:
City of Tulare

Date of Preparation:
September 2024



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3	Health Risk Assessment Setting	5
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4	HRA Methodology	8
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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 Lekkerkerker subdivision project (Project) in Tulare, California. The Project proposes development of a 228-lot single-family residential subdivision, to be located in the City of Tulare (City) on the northeast corner of W. Paige Avenue and S. Pratt Street.

The Project is subject to the California Environmental Quality Act (CEQA), with the City serving as the Lead Agency pursuant to the *CEQA Statute and Guidelines*¹ (CEQA Guidelines). An Initial Study is currently in process and this HRA was completed to assess the potential significance of construction-related Toxic Air Contaminant (TAC) emissions 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 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 CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*⁶ (ADMRT).

The calculated health risks for Project construction DPM are below the SJVAPCD thresholds of significance. No Project-specific mitigation is required, outside of compliance with existing regulations, for the health risk to remain below the thresholds. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations, and related impacts would be *less than significant* according to the *CEQA Guidelines*.

¹ (Association of Environmental Professionals, 2024)

² (San Joaquin Valley Air Pollution Control District, 2015)

³ (Office of Environmental Health Hazard Assessment, 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 development of a 228-lot single-family residential subdivision, to be located in the City of Tulare (City) on the Northeast corner of W. Paige Avenue and S. Pratt Street. The Project site is approximately 57.3 acres and includes Assessor Parcel Numbers (APN) 174-030-009 and 174-030-010.

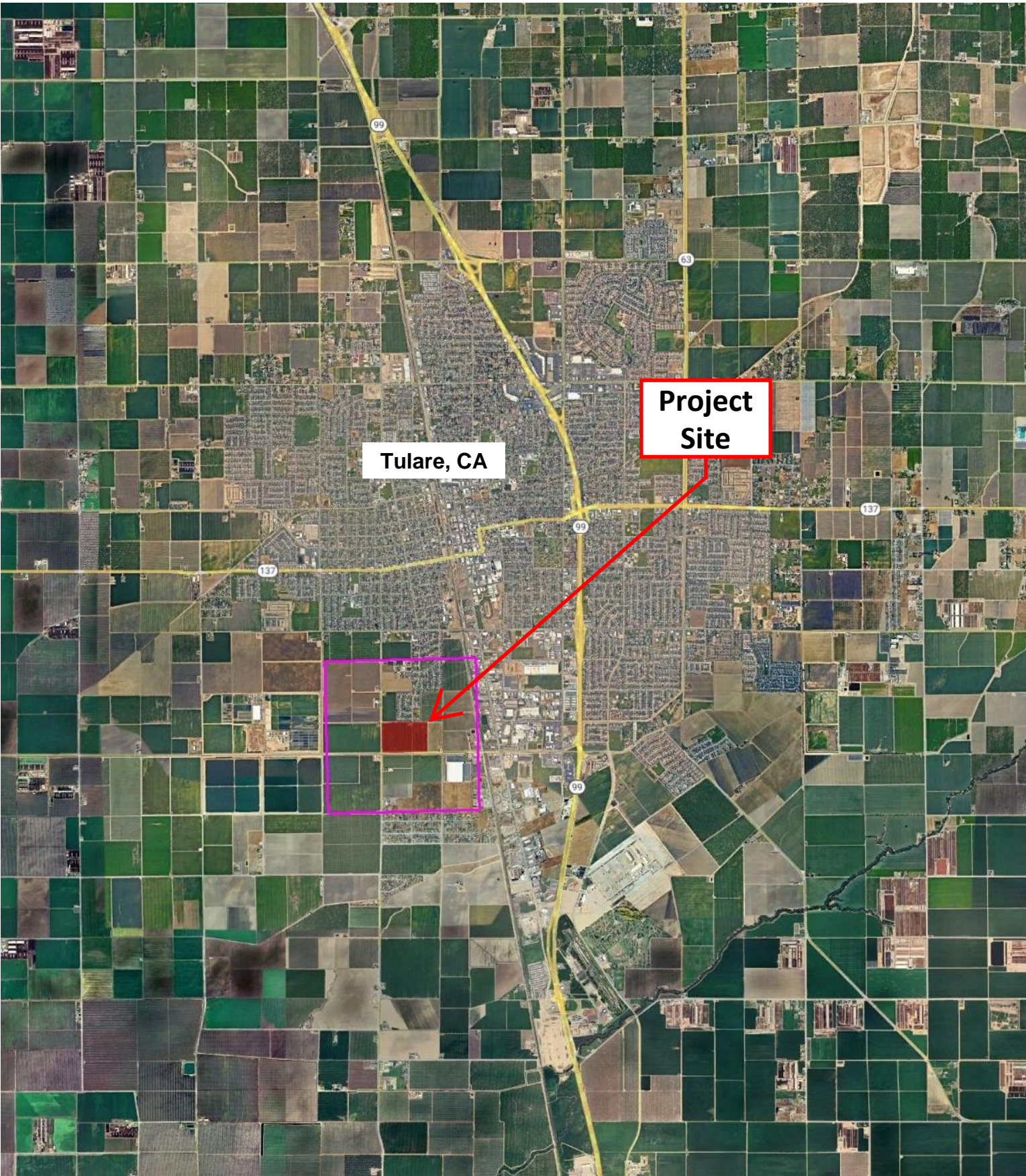
Zoning is currently R-1-5 (single-family residential, 5,000 sqft minimum) and R-1-6 (single-family residential, 6,000 sqft minimum); General Plan designation is Low-density Residential. Typical lot sizes would be according to the zoning requirements: either 5,000 sqft (50ft by 100 ft), for 84 of the units, or 6,000 sqft (60 ft by 100 ft) for 144 units. Outlots A through I would be dedicated to the City of Tulare.


Sewer and water would tie into existing lines. Roadway improvements would be included along the Project side of S. Pratt Street and W. Paige Avenue. S. East Street would be extended through the site, connecting its current terminus in the residential subdivision north of the Project site to W. Paige Avenue on the southern side of the site. Multiple internal streets would also be constructed, including outlets on the west, east, and north.

Existing use of the Project site appears to be agricultural row crops (fruit trees), based on imagery from Google Earth. Surrounding land uses are primarily agricultural, with a few commercial and industrial facilities located throughout. Single family-residential uses are located adjacent to the northern side of the Project. To the northwest, west, and south of the Project, land uses are almost entirely agriculture. Some development has occurred to the southeast, and east, with a string of development going south along CA-99, but most is in the City, which covers about 18 square miles approximately 1 mile north and northeast of the Project site.

A Vicinity Map and Tentative Subdivision Map are included below as Figure 1 and Figure 2, respectively.

Construction is currently expected to occur in three (3) phases; however, the exact timelines, along with final details of the fully-developed Project, are not yet known as they will depend on completing all required permits and incorporating all design considerations and conditions of approval.



 <div><div>Core Environmental Consulting</div><div>Clovis, CA 93612 (559) 202-3941</div></div>	<div>PROJECT NAME Lekkerkerker Subdivision</div>	<div>DATE 9/10/24</div>	<div>SCALE NOT TO SCALE</div>	<div>FIGURE 1 VICINITY MAP</div>
	<div>PROJECT NUMBER 24006</div>	<div>DRAWN BY JM</div>	<div>LAT/LONG 36.184031, -119.354688</div>	

LEKKERKERKER PROPERTY

TENTATIVE SUBDIVISION MAP

PREPARED FOR:

ARTEMIS, LLC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

PREPARED BY:

4CREEKS, INC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

ACREAGE

19.20 AC R-1-5 (50' x 100') 4.38 UNITS/AC
38.11 AC R-1-6 (60' x 100') 3.78 UNITS/AC

LEGEND

APN: 174030009, 174030010
ZONING: R-1-5 & R-1-6
GENERAL PLAN: LOW DENSITY RESIDENTIAL
FLOOD ZONE: X
ELECTRICITY: SOUTHERN CALIFORNIA EDISON
TELEPHONE: AT&T
NATURAL GAS: SOUTHERN CALIFORNIA GAS
EXISTING USE: FARMLAND
PROPOSED USE: LOW DENSITY RESIDENTIAL
PHASE LINE

TYPICAL LOT SIZES:

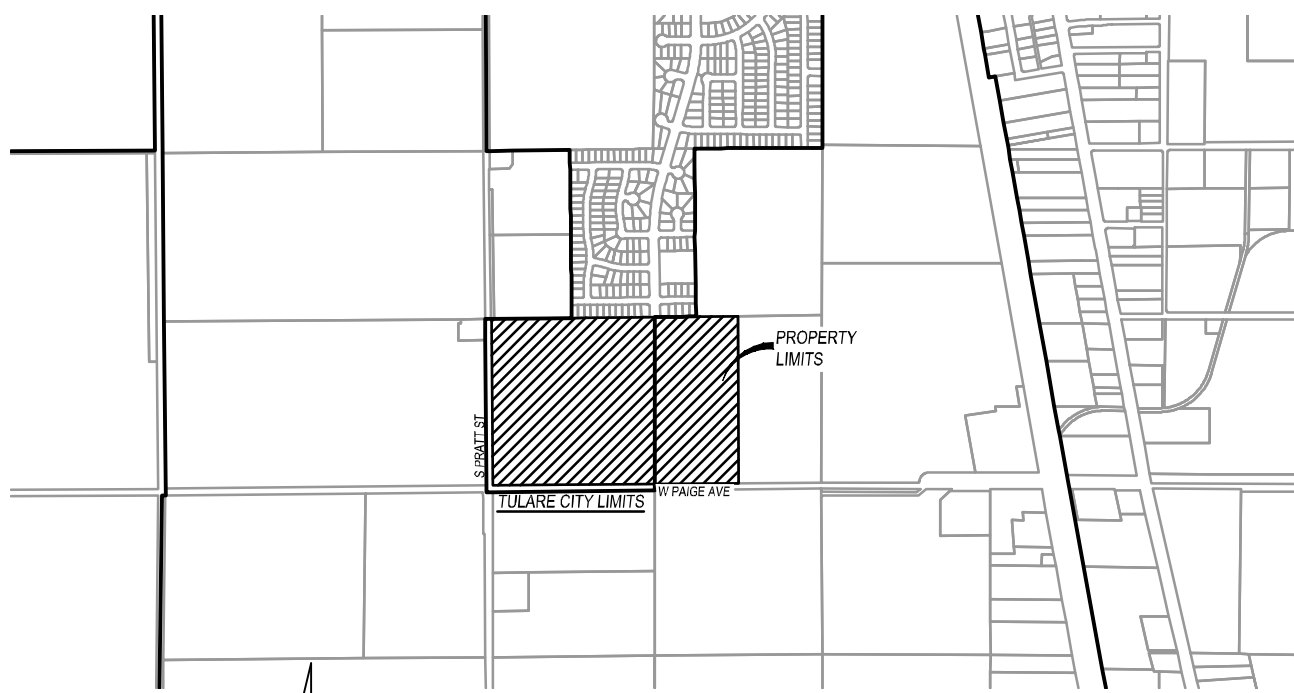
MIN. 5000 SF LOTS± (50' X 100') (84 UNITS)
MIN. 6000 SF LOTS± (60' X 100') (144 UNITS)

TOTAL 228 UNITS

*OUTLOTS A-I TO BE DEDICATED TO CITY OF TULARE

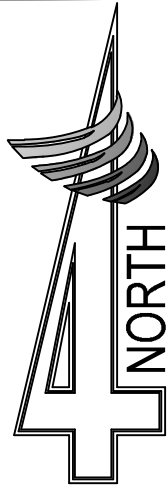
UTILITIES:

STORM WATER: TEMP. BASIN TO BE CONSTRUCTED OVER LOTS 6-13
SEWER: TIE-IN TO EXIST. 10" LINE IN E ST AND/OR EXIST. 27" LINE IN PAIGE AVE
WATER: TIE-IN TO EXIST. 12" LINE IN E ST



VICINITY MAP

SCALE: 1"=1500'



PREPARED BY:



4CREEKS

324 S. SANTA FE, STE. A
VISALIA, CA 93292
TEL: 559.802.3652
FAX: 559.802.3215
www.4-creeks.com

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 SJVAPCD 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 Thresholds of Significance

This HRA focuses on answering the following question from the Air Quality section of Appendix G in the *CEQA Guidelines*⁸:

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:

⁸ (Association of Environmental Professionals, 2024)

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)

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.

4 HRA Methodology

The Project could result in toxic air contaminant (TAC) emissions during construction and, to a limited extent, during operation. The primary TAC emissions resulting from Project construction would include diesel particulate matter (DPM), which consists of particulate matter 2.5 microns and smaller ($PM_{2.5}$) exhausted during the operation of on- and-off road diesel-fueled vehicles and equipment.

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

Once operational, diesel-fueled vehicle and equipment use would be minimal and would not result in a substantial health risk. The Project includes residential units and a city park; thus, there are no other substantial sources of TAC expected during construction or operation. Additional health risk could occur from the use of household cleaners, commercial products, landscaping equipment, and a number of other area sources; however, determining the use of such TAC sources would be highly speculative, and the health risk impact from these sources would be less than significant because existing federal, state, and local regulations are enforced for the composition, use, and disposal of these hazardous materials. This HRA is thus focused on construction DPM.

Construction health risk was evaluated in the following steps:

1. Maximum (worst year) annual construction emissions of exhaust $PM_{2.5}$ were estimated by 4Creeks, Inc. using the *California Emissions Estimator Model*¹⁰ (CalEEMod) (Version 2022.1). CalEEMod results are attached in Appendix A.
2. 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 was obtained from SJVAPCD (Visalia met site), along with required modeling parameters. Terrain was incorporated using the built in WBGIS tool. A total of 55 nearby receptors were selected, including both residential and worker receptors.
3. Normalized downwind air concentrations for each receptor were imported into the CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*¹¹ (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.
4. Cancer risk and chronic and acute hazard indices were then estimated in ADMRT using SJVAPCD required exposure parameters and Project information.

Results of the AERMOD modeling and ADMRT calculations are attached in Appendix B, along with a map of receptors. Modeling input and output files will be made available to reviewing agencies upon request.

⁹ (California Air Resources Board, 2024)

¹⁰ (California Air Pollution Control Officers Association, 2022)

¹¹ (California Air Resources Board, 2022a)

5 HRA Results

5.1 Construction Risk

Results of the construction risk assessment are compared to SJVAPCD thresholds of significance in the table below. The nearest sensitive receptors include residences adjacent to the north side of the Project site, approximately 20 meters from the expected construction boundary. The highest risk exposure occurred at receptor 1, near the middle of the southern-most row of adjacent residential receptors.

Table 2 HRA Results Compared to SJVAPCD Thresholds of Significance

RISK	CARCINOGEN (max risk in one million)	ACUTE HAZARD INDEX	CHRONIC HAZARD INDEX
Construction	11	n/a	n/a
Thresholds of Significance	20	1	1

Notes: Hazard indices are for Maximally Exposed Individual.

Sources: Appendix B HRA Results

As shown in the Table above, construction risk would be below the SJVAPCD Thresholds of Significance. Therefore, consistent with the *CEQA Guidelines*¹², the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered *less than significant*.

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.

5.2 Mitigation

The Project would not expose sensitive receptors to substantial pollutant concentrations; therefore, impacts would be less than significant under CEQA and no mitigation is required beyond compliance with existing regulations and requirements.

¹² (Association of Environmental Professionals, 2024)

6 References

- 4Creeks, Inc. (2024). *CalEEMod Detailed Report for Lekkerkerker Property*.
- Association of Environmental Professionals. (2024). *2024 California Environmental Quality Act (CEQA) Statute and Guidelines*.
- California Air Pollution Control Officers Association. (2022). *California Emissions Estimator Model*. Retrieved from <https://caleemod.com/>.
- California Air Pollution Control Officers Association. (2024). *Non-Vehicular Diesel Engine Risk Assessment Guidance*. Retrieved from <https://ww2.arb.ca.gov/sites/default/files/classic/ab2588/2024%20DICE%20Screening%20Risk%20Guidelines.pdf>.
- California Air Resources Board. (2022a). *HARP Air Dispersion Modeling and Risk Tool*. Retrieved from <https://ww2.arb.ca.gov/resources/documents/harp-air-dispersion-modeling-and-risk-tool>.
- California Air Resources Board. (2023). *Fact Sheet: Added Vehicle Restrictions and Tier Phase-Out Requirements*. Retrieved from <https://ww2.arb.ca.gov/resources/fact-sheets/fact-sheet-added-vehicle-restrictions-and-tier-phase-out-requirements>.
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Appendix A. CalEEMod Results

Prepared by 4Creeks, Inc.:

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Visalia, CA

August 2024

Lekkerkerker Property Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	Lekkerkerker Property
Construction Start Date	3/1/2025
Operational Year	2026
Lead Agency	City of Tulare
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.18403139729746, -119.35468745314893
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2746
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.26

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	228	Dwelling Unit	57.3	444,600	2,670,531	—	771	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.08	27.8	26.4	0.06	1.17	10.5	1.07	4.76	6,300	0.26	0.12	4.36	6,323
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	139	27.8	26.1	0.06	1.17	10.5	1.07	4.76	6,284	0.26	0.12	0.11	6,307
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.65	5.99	7.14	0.01	0.23	2.14	0.22	0.93	1,732	0.07	0.08	1.22	1,752
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40	1.09	1.30	< 0.005	0.04	0.39	0.04	0.17	287	0.01	0.01	0.20	290
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	10.0	10.0	100	27.0	—	15.0	—	15.0	—	—	—	—	—
Unmit.	No	No	No	No	—	No	—	No	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
------	-----	-----	----	-----	-------	-------	--------	--------	------	-----	-----	---	------

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.08	27.8	26.4	0.06	1.17	10.5	1.07	4.76	6,300	0.26	0.12	4.36	6,323
2026	0.72	3.42	7.77	0.01	0.10	0.92	0.10	0.29	1,807	0.07	0.12	3.94	1,847
2027	0.66	3.27	7.35	0.01	0.10	0.91	0.09	0.29	1,781	0.07	0.12	3.55	1,821
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.07	27.8	26.1	0.06	1.17	10.5	1.07	4.76	6,284	0.26	0.12	0.11	6,307
2026	0.64	3.56	6.46	0.01	0.10	0.92	0.10	0.29	1,725	0.08	0.12	0.10	1,761
2027	0.62	3.39	6.14	0.01	0.10	0.91	0.09	0.29	1,700	0.05	0.12	0.09	1,736
2028	139	3.34	5.24	0.01	0.13	0.19	0.12	0.13	811	0.03	0.01	0.01	814
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.78	5.99	7.14	0.01	0.23	2.14	0.22	0.93	1,732	0.07	0.06	0.82	1,752
2026	0.48	2.50	4.78	0.01	0.07	0.65	0.07	0.21	1,249	0.05	0.08	1.22	1,276
2027	0.44	2.39	4.54	0.01	0.07	0.64	0.06	0.20	1,231	0.05	0.08	1.09	1,258
2028	7.65	0.24	0.40	< 0.005	0.01	0.02	0.01	0.01	60.9	< 0.005	< 0.005	0.01	61.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	1.09	1.30	< 0.005	0.04	0.39	0.04	0.17	287	0.01	0.01	0.14	290
2026	0.09	0.46	0.87	< 0.005	0.01	0.12	0.01	0.04	207	0.01	0.01	0.20	211
2027	0.08	0.44	0.83	< 0.005	0.01	0.12	0.01	0.04	204	0.01	0.01	0.18	208
2028	1.40	0.04	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.1	< 0.005	< 0.005	< 0.005	10.1

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.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	11.5	0.81	13.9	0.01	0.01	0.33	0.01	0.09	5,317	14.7	0.19	5.60	5,747
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	0.74	0.83	0.01	0.01	0.33	0.01	0.09	5,267	14.7	0.19	3.25	5,695
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.9	0.77	7.21	0.01	0.01	0.32	0.01	0.09	5,272	14.7	0.19	4.20	5,700
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.00	0.14	1.32	< 0.005	< 0.005	0.06	< 0.005	0.02	873	2.44	0.03	0.70	944
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	10.0	10.0	100	27.0	—	15.0	—	15.0	—	—	—	—	—
Unmit.	No	No	No	No	—	No	—	No	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Area	11.4	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	11.5	0.81	13.9	0.01	0.01	0.33	0.01	0.09	5,317	14.7	0.19	5.60	5,747

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Area	10.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	10.4	0.74	0.83	0.01	0.01	0.33	0.01	0.09	5,267	14.7	0.19	3.25	5,695
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.70	0.83	0.01	0.01	0.31	0.01	0.09	732	0.01	0.09	1.02	760
Area	10.8	0.06	6.38	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.1	< 0.005	< 0.005	—	17.1
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,236	0.40	0.05	—	4,261
Water	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Waste	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Refrig.	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	10.9	0.77	7.21	0.01	0.01	0.32	0.01	0.09	5,272	14.7	0.19	4.20	5,700
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126
Area	1.98	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	701	0.07	0.01	—	705
Water	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2
Waste	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53
Total	2.00	0.14	1.32	< 0.005	< 0.005	0.06	< 0.005	0.02	873	2.44	0.03	0.70	944

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	10.2	9.42	0.02	0.44	0.44	0.41	0.41	1,668	0.07	0.01	—	1,674
Dust From Material Movement	—	—	—	—	—	6.55	—	3.37	—	—	—	—	—
Onsite truck	0.00	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	0.25	0.23	< 0.005	0.01	0.01	0.01	0.01	41.1	< 0.005	< 0.005	—	41.3
Dust From Material Movement	—	—	—	—	—	0.16	—	0.08	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.81	< 0.005	< 0.005	—	6.83
Dust From Material Movement	—	—	—	—	—	0.03	—	0.02	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.24	0.00	0.00	0.04	0.00	0.01	39.1	< 0.005	< 0.005	< 0.005	39.7
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
Hauling	0.00	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	0.01	0.00	0.00	< 0.005	0.00	< 0.005	1.00	< 0.005	< 0.005	< 0.005	1.02
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
Hauling	0.00	0.00	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	0.00	0.00	< 0.005	0.00	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.17
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
Hauling	0.00	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 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	27.7	25.4	0.06	1.17	1.17	1.07	1.07	6,167	0.25	0.05	—	6,188
Dust From Material Movement	—	—	—	—	—	9.20	—	3.65	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	27.7	25.4	0.06	1.17	1.17	1.07	1.07	6,167	0.25	0.05	—	6,188
Dust From Material Movement	—	—	—	—	—	9.20	—	3.65	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.18	3.83	0.01	0.18	0.18	0.16	0.16	929	0.04	0.01	—	932
Dust From Material Movement	—	—	—	—	—	1.39	—	0.55	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.76	0.70	< 0.005	0.03	0.03	0.03	0.03	154	0.01	< 0.005	—	154
Dust From Material Movement	—	—	—	—	—	0.25	—	0.10	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.99	0.00	0.00	0.12	0.00	0.03	133	0.01	0.01	0.51	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07	0.08	0.73	0.00	0.00	0.12	0.00	0.03	117	0.01	0.01	0.01	119
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
Hauling	0.00	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	0.12	0.00	0.00	0.02	0.00	< 0.005	18.3	< 0.005	< 0.005	0.03	18.6
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
Hauling	0.00	0.00	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	0.02	0.00	0.00	< 0.005	0.00	< 0.005	3.04	< 0.005	< 0.005	0.01	3.08
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
Hauling	0.00	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 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	2.49	2.54	0.01	0.10	0.10	0.10	0.10	537	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.27	2.49	2.54	0.01	0.10	0.10	0.10	0.10	537	0.02	< 0.005	—	538
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	1.04	1.06	< 0.005	0.04	0.04	0.04	0.04	225	0.01	< 0.005	—	225
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.19	< 0.005	0.01	0.01	0.01	0.01	37.2	< 0.005	< 0.005	—	37.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.34	5.41	0.00	0.00	0.66	0.00	0.16	727	0.04	0.03	2.81	739
Vendor	0.02	0.78	0.28	< 0.005	0.01	0.16	0.01	0.05	570	0.01	0.08	1.55	597
Hauling	0.00	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	0.40	0.41	3.97	0.00	0.00	0.66	0.00	0.16	642	0.04	0.03	0.07	651
Vendor	0.02	0.83	0.29	< 0.005	0.01	0.16	0.01	0.05	570	0.01	0.08	0.04	596
Hauling	0.00	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	0.17	0.16	1.77	0.00	0.00	0.27	0.00	0.06	279	0.02	0.01	0.51	283
Vendor	0.01	0.34	0.12	< 0.005	< 0.005	0.07	< 0.005	0.02	239	< 0.005	0.04	0.28	250
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.05	0.00	0.01	46.2	< 0.005	< 0.005	0.08	46.9
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	< 0.005	< 0.005	39.5	< 0.005	0.01	0.05	41.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. 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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.38	2.52	0.01	0.10	0.10	0.09	0.09	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.26	2.38	2.52	0.01	0.10	0.10	0.09	0.09	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.19	1.70	1.80	< 0.005	0.07	0.07	0.06	0.06	383	0.02	< 0.005	—	385
Onsite truck	0.00	0.00	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	0.31	0.33	< 0.005	0.01	0.01	0.01	0.01	63.4	< 0.005	< 0.005	—	63.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.29	4.98	0.00	0.00	0.66	0.00	0.16	711	0.04	0.03	2.56	723
Vendor	0.02	0.75	0.27	< 0.005	0.01	0.16	0.01	0.05	559	0.01	0.08	1.38	586
Hauling	0.00	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	0.36	0.39	3.66	0.00	0.00	0.66	0.00	0.16	628	0.04	0.03	0.07	638
Vendor	0.02	0.80	0.28	< 0.005	0.01	0.16	0.01	0.05	560	0.01	0.08	0.04	585
Hauling	0.00	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	0.28	0.24	2.78	0.00	0.00	0.47	0.00	0.11	466	0.03	0.02	0.79	473
Vendor	0.01	0.56	0.19	< 0.005	0.01	0.11	0.01	0.04	400	0.01	0.06	0.43	418
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.51	0.00	0.00	0.08	0.00	0.02	77.1	< 0.005	< 0.005	0.13	78.4
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	< 0.005	0.01	66.2	< 0.005	0.01	0.07	69.2
Hauling	0.00	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 (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.29	2.52	0.01	0.09	0.09	0.08	0.08	536	0.02	< 0.005	—	538
Onsite truck	0.00	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	0.26	2.29	2.52	0.01	0.09	0.09	0.08	0.08	536	0.02	< 0.005	—	538

Onsite truck	0.00	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	0.18	1.64	1.80	< 0.005	0.06	0.06	0.06	0.06	383	0.02	< 0.005	—	384
Onsite truck	0.00	0.00	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	0.30	0.33	< 0.005	0.01	0.01	0.01	0.01	63.4	< 0.005	< 0.005	—	63.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.27	4.58	0.00	0.00	0.66	0.00	0.16	697	0.04	0.03	2.32	708
Vendor	0.02	0.71	0.26	< 0.005	0.01	0.16	0.01	0.05	548	0.01	0.08	1.23	574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.34	3.35	0.00	0.00	0.66	0.00	0.16	616	0.02	0.03	0.06	625
Vendor	0.02	0.76	0.27	< 0.005	0.01	0.16	0.01	0.05	548	0.01	0.08	0.03	574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	2.56	0.00	0.00	0.47	0.00	0.11	456	0.03	0.02	0.71	464
Vendor	0.01	0.53	0.19	< 0.005	0.01	0.11	0.01	0.04	391	0.01	0.06	0.38	410
Hauling	0.00	0.00	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	0.04	0.47	0.00	0.00	0.08	0.00	0.02	75.6	< 0.005	< 0.005	0.12	76.8
Vendor	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	< 0.005	0.01	64.8	< 0.005	0.01	0.06	67.8

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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3.11. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.31	4.95	0.01	0.13	0.13	0.12	0.12	756	0.03	0.01	—	758
Paving	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.29	< 0.005	0.01	0.01	0.01	0.01	43.5	< 0.005	< 0.005	—	43.6
Paving	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.20	< 0.005	< 0.005	—	7.22
Paving	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.28	0.00	0.00	0.06	0.00	0.01	55.2	< 0.005	< 0.005	< 0.005	56.0
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
Hauling	0.00	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	0.02	0.00	0.00	< 0.005	0.00	< 0.005	3.29	< 0.005	< 0.005	< 0.005	3.34
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
Hauling	0.00	0.00	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	0.00	0.00	< 0.005	0.00	< 0.005	0.55	< 0.005	< 0.005	< 0.005	0.55
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
Hauling	0.00	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.81	1.12	< 0.005	0.02	0.02	0.01	0.01	134	0.01	< 0.005	—	134
Architectural Coatings	139	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	7.62	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	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	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.39	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	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	0.06	0.06	0.62	0.00	0.00	0.13	0.00	0.03	121	< 0.005	0.01	0.01	122
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	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	0.04	0.00	0.00	0.01	0.00	< 0.005	6.86	< 0.005	< 0.005	0.01	6.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	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	0.01	0.00	0.00	< 0.005	0.00	< 0.005	1.14	< 0.005	< 0.005	< 0.005	1.15
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

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Total	0.10	0.69	0.99	0.01	0.01	0.33	0.01	0.09	759	0.01	0.09	2.42	789
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Total	0.09	0.74	0.83	0.01	0.01	0.33	0.01	0.09	744	0.01	0.09	0.06	772
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126
Total	0.02	0.13	0.15	< 0.005	< 0.005	0.06	< 0.005	0.02	121	< 0.005	0.01	0.17	126

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Total	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Total	—	—	—	—	—	—	—	—	4,236	0.40	0.05	—	4,261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	701	0.07	0.01	—	705
Total	—	—	—	—	—	—	—	—	701	0.07	0.01	—	705

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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
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

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
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
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
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

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	0.00	—	0.00
Consumer Products	9.51	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.15	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Total	11.4	0.12	12.9	< 0.005	0.01	0.01	< 0.005	< 0.005	34.6	< 0.005	< 0.005	—	34.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consumer Products	9.51	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—	—	—
Total	10.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	1.74	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83
Total	1.98	0.01	1.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.82	< 0.005	< 0.005	—	2.83

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Total	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Total	—	—	—	—	—	—	—	—	163	1.92	0.05	—	225
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2
Total	—	—	—	—	—	—	—	—	27.0	0.32	0.01	—	37.2

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Total	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Total	—	—	—	—	—	—	—	—	124	12.4	0.00	—	434
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8
Total	—	—	—	—	—	—	—	—	20.5	2.05	0.00	—	71.8

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Total	—	—	—	—	—	—	—	—	—	—	—	3.18	3.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53
Total	—	—	—	—	—	—	—	—	—	—	—	0.53	0.53

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
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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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5E	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestere	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestere d	—	—	—	—	—	—	—	—	—	—	—	—	—
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	3/4/2025	3/15/2025	5.00	9.00	—
Grading	Grading	3/16/2025	5/31/2025	5.00	55.0	—
Building Construction	Building Construction	6/1/2025	12/31/2027	5.00	675	—
Paving	Paving	1/1/2028	1/31/2028	5.00	21.0	—
Architectural Coating	Architectural Coating	2/1/2028	2/28/2028	5.00	20.0	—

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	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	1.00	4.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	2.00	367	0.29
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	3.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.4	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.43	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Grading	—	—	—	—
Grading	Worker	15.0	11.4	LDA,LDT1,LDT2
Grading	Vendor	—	7.43	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	82.1	11.4	LDA,LDT1,LDT2
Building Construction	Vendor	24.4	7.43	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	7.50	11.4	LDA,LDT1,LDT2
Paving	Vendor	—	7.43	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	16.4	11.4	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.43	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)
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Architectural Coating	900,315	300,105	0.00	0.00	—
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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	—	—	4.50	0.00	—
Grading	—	—	165	0.00	—
Paving	0.00	0.00	0.00	0.00	2.51

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	2.51	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
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	2,152	2,175	1,949	776,205	18,715	18,914	16,951	6,749,483

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	0
No Fireplaces	228
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)
900315	300,105	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
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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	4,466,189	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	9,704,284	47,105,797

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	230	—

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
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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
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. 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)
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	32.4	annual days of extreme heat
Extreme Precipitation	0.60	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 $\frac{3}{4}$ 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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	97.9
AQ-DPM	22.7
Drinking Water	79.0
Lead Risk Housing	45.6
Pesticides	80.2
Toxic Releases	36.4
Traffic	4.76
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	80.5
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	79.6
Cardio-vascular	93.1
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—

Education	91.6
Housing	55.1
Linguistic	94.8
Poverty	84.9
Unemployment	63.4

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	12.83202874
Employed	20.45425382
Median HI	18.70909791
Education	—
Bachelor's or higher	2.746054151
High school enrollment	100
Preschool enrollment	44.86077249
Transportation	—
Auto Access	45.25856538
Active commuting	12.97318106
Social	—
2-parent households	42.39702297
Voting	12.19042731
Neighborhood	—
Alcohol availability	60.19504684
Park access	52.12370076
Retail density	9.072244322
Supermarket access	26.20300269

Tree canopy	4.812010779
Housing	—
Homeownership	45.46387784
Housing habitability	43.2567689
Low-inc homeowner severe housing cost burden	45.7590145
Low-inc renter severe housing cost burden	38.6629026
Uncrowded housing	24.97112794
Health Outcomes	—
Insured adults	24.03438984
Arthritis	0.0
Asthma ER Admissions	16.0
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	1.8
Cognitively Disabled	85.7
Physically Disabled	76.0
Heart Attack ER Admissions	13.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
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	14.1
Elderly	80.7
English Speaking	22.0
Foreign-born	57.2
Outdoor Workers	24.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.7
Traffic Density	10.6
Traffic Access	0.0
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	17.5

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)	16.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Suburban setting
Characteristics: Utility Information	The electric provider is Southern California Edison
Land Use	Site is 57.3 acres
Construction: Construction Phases	No demolition is required. Project-specific construction schedule entered.
Construction: Off-Road Equipment	Project-specific construction equipment entered.
Operations: Fleet Mix	Utilized SJVAPCD approved fleet mix for residential projects (operational year 2026)
Operations: Hearths	Project does not include any gas or wood hearths.
Operations: Energy Use	Project will not be connected to natural gas. Electricity consumption was adjusted to account for the energy that would have been provided by natural gas.

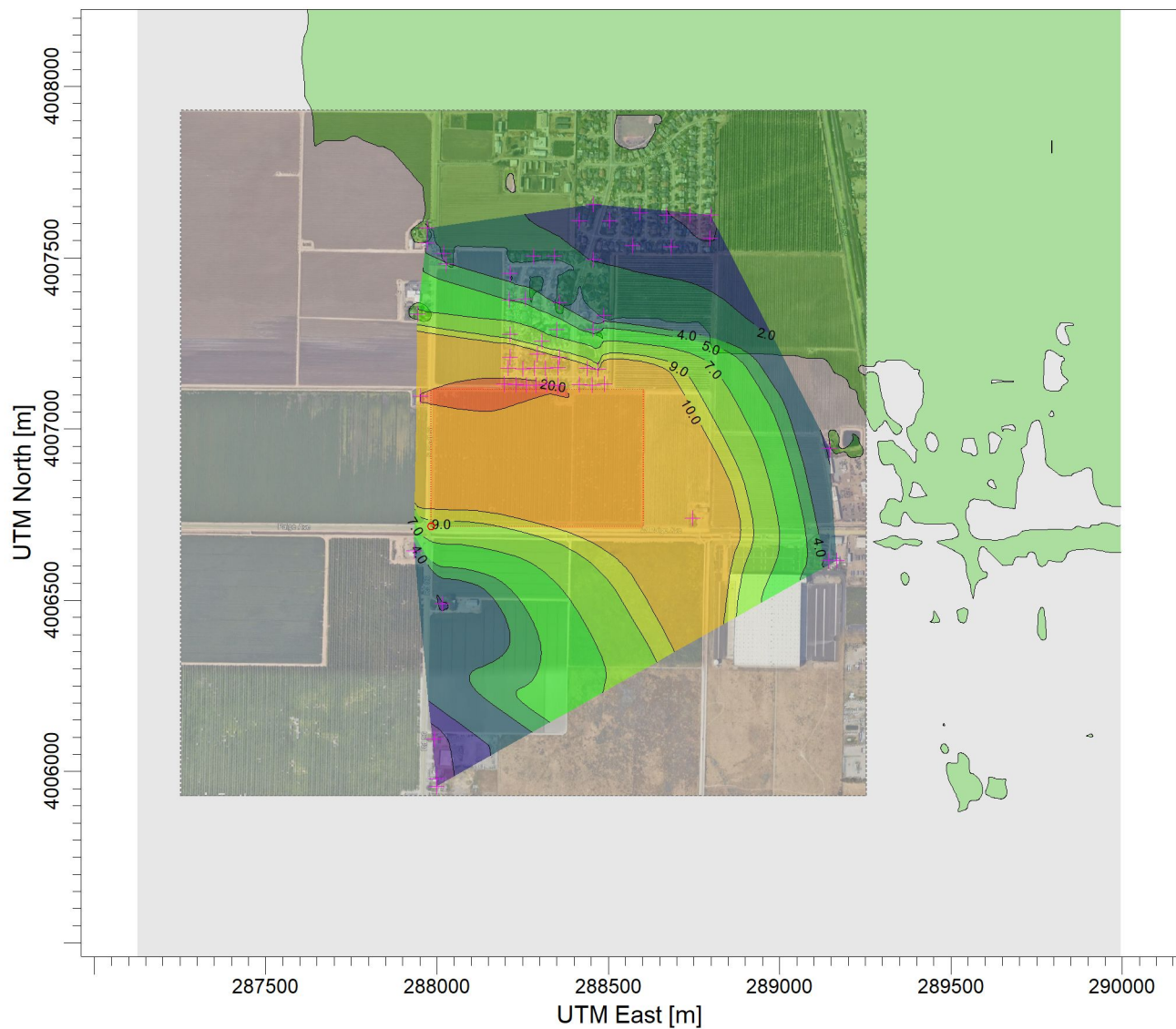
Appendix B. AERMOD and ADMRT Results

Prepared by Core Environmental Consulting:

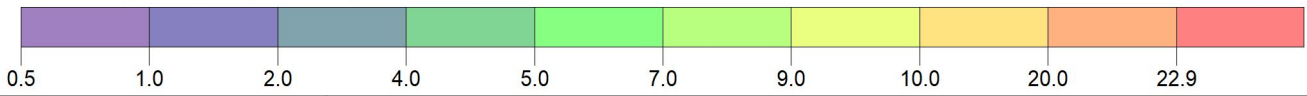
Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA


September 2024





PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 4 YEARS FOR SOURCE GROUP: AREA1
Max: 22.9 [ug/m^3] at (288196.55, 4007130.97) ug/m^3



COMMENTS:	SOURCES:	COMPANY NAME:	
	1		
	RECEPTORS:	MODELER:	
	56		
	OUTPUT TYPE:	SCALE:	1:20,115
	Concentration	0  0.5 km	
	MAX:	DATE:	PROJECT NO.:
	22.9 ug/m^3	9/9/2024	

**HARP - Air Dispersion Modeling and Risk Tool v22118

**9/9/2024

**Exported Risk Results

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RIS	SOIL_RISK	DERMAL_R
1	ALL	---	288196.6	4007131	1.11E-05	4YrCancer	1.11E-05	0	0
2	ALL	---	288229.2	4007129	1.10E-05	4YrCancer	1.10E-05	0	0
3	ALL	---	288261.1	4007128	1.09E-05	4YrCancer	1.09E-05	0	0
4	ALL	---	288289.5	4007128	1.06E-05	4YrCancer	1.06E-05	0	0
5	ALL	---	288319.7	4007129	1.02E-05	4YrCancer	1.02E-05	0	0
6	ALL	---	288352.4	4007127	1.00E-05	4YrCancer	1.00E-05	0	0
7	ALL	---	288416	4007129	8.83E-06	4YrCancer	8.83E-06	0	0
8	ALL	---	288453.7	4007128	8.14E-06	4YrCancer	8.14E-06	0	0
9	ALL	---	288488.9	4007131	7.10E-06	4YrCancer	7.10E-06	0	0
10	ALL	---	288470.5	4007175	4.69E-06	4YrCancer	4.69E-06	0	0
11	ALL	---	288437	4007178	5.13E-06	4YrCancer	5.13E-06	0	0
12	ALL	---	288352.4	4007180	6.24E-06	4YrCancer	6.24E-06	0	0
13	ALL	---	288317.2	4007177	6.76E-06	4YrCancer	6.76E-06	0	0
14	ALL	---	288283.7	4007178	7.03E-06	4YrCancer	7.03E-06	0	0
15	ALL	---	288251	4007176	7.40E-06	4YrCancer	7.40E-06	0	0
16	ALL	---	288207.4	4007178	7.57E-06	4YrCancer	7.57E-06	0	0
17	ALL	---	288212.5	4007211	6.00E-06	4YrCancer	6.00E-06	0	0
18	ALL	---	288292.9	4007218	5.16E-06	4YrCancer	5.16E-06	0	0
19	ALL	---	288357.4	4007210	4.84E-06	4YrCancer	4.84E-06	0	0
20	ALL	---	288213.3	4007276	4.01E-06	4YrCancer	4.01E-06	0	0
21	ALL	---	288307.1	4007257	3.88E-06	4YrCancer	3.88E-06	0	0
22	ALL	---	288349	4007289	2.90E-06	4YrCancer	2.90E-06	0	0
23	ALL	---	288455.4	4007292	2.10E-06	4YrCancer	2.10E-06	0	0
24	ALL	---	288487	4007331	1.57E-06	4YrCancer	1.57E-06	0	0
25	ALL	---	288357.2	4007371	1.86E-06	4YrCancer	1.86E-06	0	0
26	ALL	---	288257.5	4007381	2.19E-06	4YrCancer	2.19E-06	0	0
27	ALL	---	288210.6	4007377	2.41E-06	4YrCancer	2.41E-06	0	0
28	ALL	---	288213.1	4007453	1.73E-06	4YrCancer	1.73E-06	0	0
29	ALL	---	288281.8	4007505	1.26E-06	4YrCancer	1.26E-06	0	0
30	ALL	---	288342.9	4007504	1.14E-06	4YrCancer	1.14E-06	0	0
31	ALL	---	288456	4007494	9.47E-07	4YrCancer	9.47E-07	0	0
32	ALL	---	288415.1	4007609	7.36E-07	4YrCancer	7.36E-07	0	0
33	ALL	---	288503.8	4007609	6.42E-07	4YrCancer	6.42E-07	0	0
34	ALL	---	288592.4	4007630	5.38E-07	4YrCancer	5.38E-07	0	0
35	ALL	---	288671.6	4007624	4.89E-07	4YrCancer	4.89E-07	0	0
36	ALL	---	288737	4007624	4.46E-07	4YrCancer	4.46E-07	0	0
37	ALL	---	288798.4	4007625	4.06E-07	4YrCancer	4.06E-07	0	0
38	ALL	---	288797.1	4007558	4.48E-07	4YrCancer	4.48E-07	0	0
39	ALL	---	288683.8	4007532	5.69E-07	4YrCancer	5.69E-07	0	0
40	ALL	---	288570.6	4007535	6.86E-07	4YrCancer	6.86E-07	0	0

41 ALL	---	287933.3	4006644	1.30E-06	4YrCancer	1.30E-06	0	0
42 ALL	---	288015.8	4006489	8.76E-07	4YrCancer	8.76E-07	0	0
43 ALL	---	287991.2	4006094	3.01E-07	4YrCancer	3.01E-07	0	0
44 ALL	---	287998.6	4005978	2.55E-07	4YrCancer	2.55E-07	0	0
45 ALL	---	287998.6	4005957	2.48E-07	4YrCancer	2.48E-07	0	0
46 ALL	---	288745.7	4006739	6.64E-06	4YrCancer	6.64E-06	0	0
47 ALL	---	289143.4	4006616	1.78E-06	4YrCancer	1.78E-06	0	0
48 ALL	---	289166	4006616	1.67E-06	4YrCancer	1.67E-06	0	0
49 ALL	---	289145.7	4006943	8.41E-07	4YrCancer	8.41E-07	0	0
50 ALL	---	287952.9	4007096	9.91E-06	4YrCancer	9.91E-06	0	0
51 ALL	---	287943	4007336	3.51E-06	4YrCancer	3.51E-06	0	0
52 ALL	---	288017.9	4007512	1.77E-06	4YrCancer	1.77E-06	0	0
53 ALL	---	288028	4007483	1.95E-06	4YrCancer	1.95E-06	0	0
54 ALL	---	287971.1	4007544	1.67E-06	4YrCancer	1.67E-06	0	0
55 ALL	---	287971.8	4007587	1.46E-06	4YrCancer	1.46E-06	0	0

[illegible]

[illegible]

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** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 9/9/2024
** File: C:\Lakes\AERMOD View\Lekkerkerker\Lekkerkerker.ADI
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**
**
*****
** AERMOD Control Pathway
*****
**
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  MODELOPT DFAULT CONC
  AVERTIME 1 ANNUAL
  POLLUTID OTHER
  RUNORNOT RUN
  ERRORFIL Lekkerkerker.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION AREA1          AREA          287982.720  4006715.850
78.380
** Source Parameters **
  SRCPARAM AREA1          4.1667E-06          4.000  620.000  400.000
0.000  0.000
  SRCGROUP AREA1          AREA1
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
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  DISCCART 288196.55 4007130.97 79.50 79.50
  DISCCART 288229.22 4007129.29 79.47 79.47
  DISCCART 288261.05 4007128.46 79.47 79.47

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DISCCART	288289.53	4007128.46	79.44	79.44
DISCCART	288319.69	4007129.29	79.34	79.34
DISCCART	288352.36	4007126.78	79.30	79.30
DISCCART	288416.03	4007129.29	79.26	79.26
DISCCART	288453.73	4007128.46	79.61	79.61
DISCCART	288488.91	4007130.97	79.83	79.83
DISCCART	288470.48	4007174.53	79.75	79.75
DISCCART	288436.98	4007177.88	79.36	79.36
DISCCART	288352.36	4007179.56	79.37	79.37
DISCCART	288317.18	4007177.04	79.47	79.47
DISCCART	288283.67	4007177.88	79.51	79.51
DISCCART	288251.00	4007176.21	79.45	79.45
DISCCART	288207.44	4007177.88	79.64	79.64
DISCCART	288212.46	4007210.55	79.58	79.58
DISCCART	288292.89	4007218.09	79.00	79.00
DISCCART	288357.39	4007209.72	79.02	79.02
DISCCART	288213.30	4007275.90	79.59	79.59
DISCCART	288307.13	4007256.63	79.51	79.51
DISCCART	288349.01	4007289.30	79.46	79.46
DISCCART	288455.41	4007291.81	79.66	79.66
DISCCART	288487.03	4007330.52	80.42	80.42
DISCCART	288357.18	4007370.73	80.11	80.11
DISCCART	288257.48	4007380.78	79.92	79.92
DISCCART	288210.57	4007376.60	79.85	79.85
DISCCART	288213.08	4007452.83	80.05	80.05
DISCCART	288281.78	4007504.77	80.39	80.39
DISCCART	288342.93	4007503.94	80.26	80.26
DISCCART	288456.03	4007493.88	80.68	80.68
DISCCART	288415.08	4007608.65	81.24	81.24
DISCCART	288503.76	4007608.65	81.10	81.10
DISCCART	288592.43	4007630.47	81.01	81.01
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DISCCART	288797.05	4007558.17	81.21	81.21
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DISCCART	288570.60	4007534.98	80.50	80.50
DISCCART	287933.32	4006644.38	77.85	77.85
DISCCART	288015.84	4006489.20	77.60	77.60
DISCCART	287991.21	4006093.85	76.89	76.89
DISCCART	287998.60	4005978.08	76.62	76.62
DISCCART	287998.60	4005957.14	76.66	76.66
DISCCART	288745.69	4006739.16	78.60	78.60
DISCCART	289143.36	4006616.12	79.18	79.18
DISCCART	289165.97	4006616.12	79.06	79.06
DISCCART	289145.65	4006943.32	79.84	79.84
DISCCART	287952.85	4007095.62	78.93	78.93
DISCCART	287943.02	4007336.36	80.53	80.53
DISCCART	288017.94	4007512.37	80.09	80.09
DISCCART	288027.98	4007482.91	80.00	80.00
DISCCART	287971.08	4007543.83	80.00	80.00
DISCCART	287971.75	4007586.67	80.12	80.12

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RE FINISHED
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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 Lekkerkerker.AD\01H1G001.PLT 31
PLOTFILE ANNUAL AREA1 Lekkerkerker.AD\AN00G001.PLT 32
SUMMFILE Lekkerkerker.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      117      MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

```

```

*****
*** SETUP Finishes Successfully ***
*****

```



```

*** AERMOD - VERSION 23132 ***      *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc      ***
09/09/24
*** AERMET - VERSION 21112 ***      ***
***      18:15:02

```

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      56 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: Lekkerkerker.err
**File for Summary of Results: Lekkerkerker.sum

```

```

*** AERMOD - VERSION 23132 *** *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc ***
09/09/24
*** AERMET - VERSION 21112 *** ***
*** 18:15:02

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** AREA SOURCE

DATA ***

RELEASE	X-DIM	NUMBER	EMISSION	RATE	COORD (SW CORNER)	BASE
RATE	AIRCRAFT	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION
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	0.41667E-05	287982.7	4006715.8	78.4	
4.00	620.00	400.00	0.00	0.00	NO	
NO						

```

*** AERMOD - VERSION 23132 ***    *** C:\Lakes\AERMOD View
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```

```

PAGE      3
*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

```

*** SOURCE IDs
DEFINING SOURCE GROUPS ***

SRCGROUP ID                                SOURCE
IDs
-----
---

AREA1      AREA1      ,

```

```

*** AERMOD - VERSION 23132 *** *** C:\Lakes\AERMOD View
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09/09/24
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```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE

CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD,

ZELEV, ZHILL, ZFLAG)

(METERS)

```

( 288196.5, 4007131.0, 79.5, 79.5, 0.0);
( 288229.2, 4007129.3, 79.5, 79.5, 0.0);
( 288261.0, 4007128.5, 79.5, 79.5, 0.0);
( 288289.5, 4007128.5, 79.4, 79.4, 0.0);
( 288319.7, 4007129.3, 79.3, 79.3, 0.0);
( 288352.4, 4007126.8, 79.3, 79.3, 0.0);
( 288416.0, 4007129.3, 79.3, 79.3, 0.0);
( 288453.7, 4007128.5, 79.6, 79.6, 0.0);
( 288488.9, 4007131.0, 79.8, 79.8, 0.0);
( 288470.5, 4007174.5, 79.8, 79.8, 0.0);
( 288437.0, 4007177.9, 79.4, 79.4, 0.0);
( 288352.4, 4007179.6, 79.4, 79.4, 0.0);
( 288317.2, 4007177.0, 79.5, 79.5, 0.0);
( 288283.7, 4007177.9, 79.5, 79.5, 0.0);
( 288251.0, 4007176.2, 79.5, 79.5, 0.0);
( 288207.4, 4007177.9, 79.6, 79.6, 0.0);
( 288212.5, 4007210.5, 79.6, 79.6, 0.0);
( 288292.9, 4007218.1, 79.0, 79.0, 0.0);
( 288357.4, 4007209.7, 79.0, 79.0, 0.0);
( 288213.3, 4007275.9, 79.6, 79.6, 0.0);
( 288307.1, 4007256.6, 79.5, 79.5, 0.0);
( 288349.0, 4007289.3, 79.5, 79.5, 0.0);
( 288455.4, 4007291.8, 79.7, 79.7, 0.0);
( 288487.0, 4007330.5, 80.4, 80.4, 0.0);
( 288357.2, 4007370.7, 80.1, 80.1, 0.0);
( 288257.5, 4007380.8, 79.9, 79.9, 0.0);
( 288210.6, 4007376.6, 79.8, 79.8, 0.0);
( 288213.1, 4007452.8, 80.0, 80.0, 0.0);
( 288281.8, 4007504.8, 80.4, 80.4, 0.0);
( 288342.9, 4007503.9, 80.3, 80.3, 0.0);
( 288456.0, 4007493.9, 80.7, 80.7, 0.0);
( 288415.1, 4007608.6, 81.2, 81.2, 0.0);
( 288503.8, 4007608.6, 81.1, 81.1, 0.0);
( 288592.4, 4007630.5, 81.0, 81.0, 0.0);
( 288671.5, 4007623.6, 81.1, 81.1, 0.0);
( 288737.0, 4007623.6, 81.2, 81.2, 0.0);

```

```

( 288798.4, 4007625.0,      81.4,      81.4,      0.0);
( 288797.0, 4007558.2,      81.2,      81.2,      0.0);
( 288683.8, 4007532.2,      80.6,      80.6,      0.0);
( 288570.6, 4007535.0,      80.5,      80.5,      0.0);
( 287933.3, 4006644.4,      77.8,      77.8,      0.0);
( 288015.8, 4006489.2,      77.6,      77.6,      0.0);
( 287991.2, 4006093.8,      76.9,      76.9,      0.0);
( 287998.6, 4005978.1,      76.6,      76.6,      0.0);
( 287998.6, 4005957.1,      76.7,      76.7,      0.0);
( 288745.7, 4006739.2,      78.6,      78.6,      0.0);
( 289143.4, 4006616.1,      79.2,      79.2,      0.0);
( 289166.0, 4006616.1,      79.1,      79.1,      0.0);
( 289145.6, 4006943.3,      79.8,      79.8,      0.0);
( 287952.8, 4007095.6,      78.9,      78.9,      0.0);
( 287943.0, 4007336.4,      80.5,      80.5,      0.0);
( 288017.9, 4007512.4,      80.1,      80.1,      0.0);
( 288028.0, 4007482.9,      80.0,      80.0,      0.0);
( 287971.1, 4007543.8,      80.0,      80.0,      0.0);
( 287971.8, 4007586.7,      80.1,      80.1,      0.0);
( 288457.2, 4007656.5,      81.0,      81.0,      0.0);

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** 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

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)

5.14, 8.23, 10.80, 1.54, 3.09,

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** 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 23132 *** *** C:\Lakes\AERMOD View
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 *** AERMET - VERSION 21112 *** ***
 *** 18:15:02

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*** 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 ***

MICROGRAMS/M**3 ** CONC OF OTHER IN
 **

X-COORD (M)	Y-COORD (M)	CONC
288196.55	4007130.97	22.87732
288229.22	4007129.29	22.79159
288261.05	4007128.46	22.46145
288289.53	4007128.46	21.94480
288319.69	4007129.29	21.16203
288352.36	4007126.78	20.72866
288416.03	4007129.29	18.27702
288453.73	4007128.46	16.85137
288488.91	4007130.97	14.70320
288470.48	4007174.53	9.70989
288436.98	4007177.88	10.61603
288352.36	4007179.56	12.90680
288317.18	4007177.04	13.99291
288283.67	4007177.88	14.55588
288251.00	4007176.21	15.30674
288207.44	4007177.88	15.67457
288212.46	4007210.55	12.41824
288292.89	4007218.09	10.67495
288357.39	4007209.72	10.02323
288213.30	4007275.90	8.30870
288307.13	4007256.63	8.01986
288349.01	4007289.30	5.99406
288455.41	4007291.81	4.34281
288487.03	4007330.52	3.24377
288357.18	4007370.73	3.85523
288257.48	4007380.78	4.52238
288210.57	4007376.60	4.97743
288213.08	4007452.83	3.58263

	288281.78	4007504.77	2.61617
288342.93	4007503.94	2.35012	
	288456.03	4007493.88	1.95972
288415.08	4007608.65	1.52349	
	288503.76	4007608.65	1.32912
288592.43	4007630.47	1.11360	
	288671.55	4007623.65	1.01273
288737.03	4007623.65	0.92279	
	288798.42	4007625.02	0.83960
288797.05	4007558.17	0.92637	
	288683.83	4007532.25	1.17836
288570.60	4007534.98	1.41929	
	287933.32	4006644.38	2.68497
288015.84	4006489.20	1.81322	
	287991.21	4006093.85	0.62256
287998.60	4005978.08	0.52857	
	287998.60	4005957.14	0.51331
288745.69	4006739.16	13.73212	
	289143.36	4006616.12	3.68806
289165.97	4006616.12	3.46510	
	289145.65	4006943.32	1.74066
287952.85	4007095.62	20.51194	
	287943.02	4007336.36	7.26044
288017.94	4007512.37	3.67261	
	288027.98	4007482.91	4.02518
287971.08	4007543.83	3.45358	
	287971.75	4007586.67	3.02958
288457.23	4007656.54	1.27270	

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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 ***

MICROGRAMS/M**3 ** CONC OF OTHER IN
 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
288196.55	4007130.97	206.72894	(07120103)
288229.22	4007129.29	196.45628	(07120103)
288261.05	4007128.46	184.73360	(07120103)
288289.53	4007128.46	172.89798	(07120103)
288319.69	4007129.29	159.08530	(07120103)
288352.36	4007126.78	159.97774	(07120723)
288416.03	4007129.29	170.76131	(07120723)
288453.73	4007128.46	177.50641	(07011624)
288488.91	4007130.97	184.11821	(07011624)
288470.48	4007174.53	162.36698	(07120723)
288436.98	4007177.88	156.97868	(07120723)
288352.36	4007179.56	149.36291	(07030701)
288317.18	4007177.04	148.43440	(08122707)
288283.67	4007177.88	151.61155	(09120603)
288251.00	4007176.21	160.55854	(07120103)
288207.44	4007177.88	175.53944	(07120103)
288212.46	4007210.55	147.26884	(07120103)
288292.89	4007218.09	137.52980	(08122707)
288357.39	4007209.72	138.74122	(07030701)
288213.30	4007275.90	125.47644	(07121918)
288307.13	4007256.63	125.51779	(08022904)
288349.01	4007289.30	117.15596	(08010724)
288455.41	4007291.81	118.80980	(07030701)
288487.03	4007330.52	110.69099	(07030701)
288357.18	4007370.73	102.27634	(08010801)
288257.48	4007380.78	102.43632	(09031206)
288210.57	4007376.60	103.98370	(08012903)

288213.08	4007452.83	93.29511	(09031206)
	288281.78	4007504.77	86.62585 (09120305)
288342.93	4007503.94	86.34854	(08012607)
	288456.03	4007493.88	86.10318 (09123023)
288415.08	4007608.65	76.72853	(09123023)
	288503.76	4007608.65	72.05549 (08022922)
288592.43	4007630.47	69.56862	(09012903)
	288671.55	4007623.65	75.36444 (07030701)
288737.03	4007623.65	77.33199	(07030701)
	288798.42	4007625.02	77.96296 (07042203)
288797.05	4007558.17	83.76870	(07042203)
	288683.83	4007532.25	85.29863 (07030701)
288570.60	4007534.98	80.38882	(07030701)
	287933.32	4006644.38	172.11570 (10013004)
288015.84	4006489.20	116.15485	(07012603)
	287991.21	4006093.85	70.32696 (08120802)
287998.60	4005978.08	64.17839	(07122304)
	287998.60	4005957.14	63.22912 (07122304)
288745.69	4006739.16	170.00668	(09011005)
	289143.36	4006616.12	106.23272 (09011005)
289165.97	4006616.12	104.29210	(09011005)
	289145.65	4006943.32	105.87350 (08121922)
287952.85	4007095.62	213.45935	(07120103)
	287943.02	4007336.36	142.45171 (07120103)
288017.94	4007512.37	90.66046	(07121918)
	288027.98	4007482.91	94.14549 (09120603)
287971.08	4007543.83	88.34661	(07011222)
	287971.75	4007586.67	83.68482 (07121918)
288457.23	4007656.54	72.48945	(08022922)

```

*** AERMOD - VERSION 23132 *** *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc ***
09/09/24
*** AERMET - VERSION 21112 *** ***
*** 18:15:02

```

PAGE 9

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

ANNUAL RESULTS AVERAGED OVER 4 YEARS *** THE SUMMARY OF MAXIMUM ***

MICROGRAMS/M**3 ** CONC OF OTHER IN **

NETWORK

GROUP ID	AVERAGE CONC			
RECEPTOR	(XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID	
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

AREA1	1ST HIGHEST VALUE IS	22.87732 AT (	288196.55,
4007130.97,	79.50, 79.50,	0.00) DC	
	2ND HIGHEST VALUE IS	22.79159 AT (	288229.22,
4007129.29,	79.47, 79.47,	0.00) DC	
	3RD HIGHEST VALUE IS	22.46145 AT (	288261.05,
4007128.46,	79.47, 79.47,	0.00) DC	
	4TH HIGHEST VALUE IS	21.94480 AT (	288289.53,
4007128.46,	79.44, 79.44,	0.00) DC	
	5TH HIGHEST VALUE IS	21.16203 AT (	288319.69,
4007129.29,	79.34, 79.34,	0.00) DC	
	6TH HIGHEST VALUE IS	20.72866 AT (	288352.36,
4007126.78,	79.30, 79.30,	0.00) DC	
	7TH HIGHEST VALUE IS	20.51194 AT (	287952.85,
4007095.62,	78.93, 78.93,	0.00) DC	
	8TH HIGHEST VALUE IS	18.27702 AT (	288416.03,
4007129.29,	79.26, 79.26,	0.00) DC	
	9TH HIGHEST VALUE IS	16.85137 AT (	288453.73,
4007128.46,	79.61, 79.61,	0.00) DC	
	10TH HIGHEST VALUE IS	15.67457 AT (	288207.44,
4007177.88,	79.64, 79.64,	0.00) DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

```

*** AERMOD - VERSION 23132 ***    *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc    ***
09/09/24
*** AERMET - VERSION 21112 ***    ***
***      18:15:02

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PAGE 10

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*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

*** THE SUMMARY

OF HIGHEST 1-HR RESULTS ***

```

MICROGRAMS/M***3          ** CONC OF OTHER      IN
                           **

```

```

                                DATE
NETWORK
GROUP ID                      AVERAGE CONC      (YYMMDDHH)
RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)      OF TYPE  GRID-ID
- - - - -
- - - - -

```

```

AREA1      HIGH      1ST HIGH VALUE IS      213.45935  ON 07120103: AT
( 287952.85, 4007095.62, 78.93, 78.93, 0.00) DC

```

```

*** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR

```

```

*** AERMOD - VERSION 23132 ***      *** C:\Lakes\AERMOD View
\Lekkerkerker\Lekkerkerker.isc      ***
09/09/24
*** AERMET - VERSION 21112 ***      ***
***      18:15:02

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PAGE 11

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*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

```

*** Message Summary : AERMOD Model Execution ***

```

```

----- Summary of Total Messages -----

```

```

A Total of          0 Fatal Error Message(s)
A Total of          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      117      MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

```

```

*****
*** AERMOD Finishes Successfully ***
*****

```

HARP2 - HRACalc (dated 22118) 9/9/2024 6:31:35 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 4

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 2
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to:

C:\Users\geniu\OneDrive\Desktop\24006 - Lekkerkerker

HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRACancerRisk.csv

Cancer risk total by receptor saved to: C:\Users\geniu\OneDrive\Desktop\24006 -

Lekkerkerker HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRACancerRiskSumByRec.csv

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to:

C:\Users\geniu\OneDrive\Desktop\24006 - Lekkerkerker

HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCCChronicRisk.csv

Chronic risk total by receptor saved to: C:\Users\geniu\OneDrive\Desktop\24006 -

Lekkerkerker HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCCChronicRiskSumByRec.csv

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to:

C:\Users\geniu\OneDrive\Desktop\24006 - Lekkerkerker

HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCAcuteRisk.csv

Acute risk total by receptor saved to: C:\Users\geniu\OneDrive\Desktop\24006 -

Lekkerkerker HRA\ADMRT\LEKKERKERKER\hra\ConstructionHRANCAcuteRiskSumByRec.csv

HRA ran successfully

Appendix C

Biological Evaluation



LIVE OAK
— ASSOCIATES, INC. —

**BIOLOGICAL EVALUATION
LEKKERKERKER PROPERTY SUBDIVISION PROJECT
TULARE COUNTY, CALIFORNIA**

Prepared by

LIVE OAK ASSOCIATES, INC.

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August 22, 2024

PN 2895-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) investigated the biological resources of an approximately 57-acre parcel proposed for the development of a 228-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 southwest corner of the city limits northeast of the intersection of South Pratt Street and West Paige Avenue.

The project site was surveyed on July 24, 2024 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; 14 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 57-acre parcel proposed for the development of a 228-lot residential subdivision in Tulare, California (“project site” or “site”). 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 South Pratt Street and West Paige Avenue, approximately 1.3 miles west of State Route 99, within the southwestern boundary of the City of Tulare in Tulare County, California (Figure 1). The site can be found on the *Tulare* U.S. Geological Survey (USGS) 7.5-minute quadrangle, Section 15, Township 20 South, Range 24 East; Mount Diablo Base and Meridian (Figure 2).

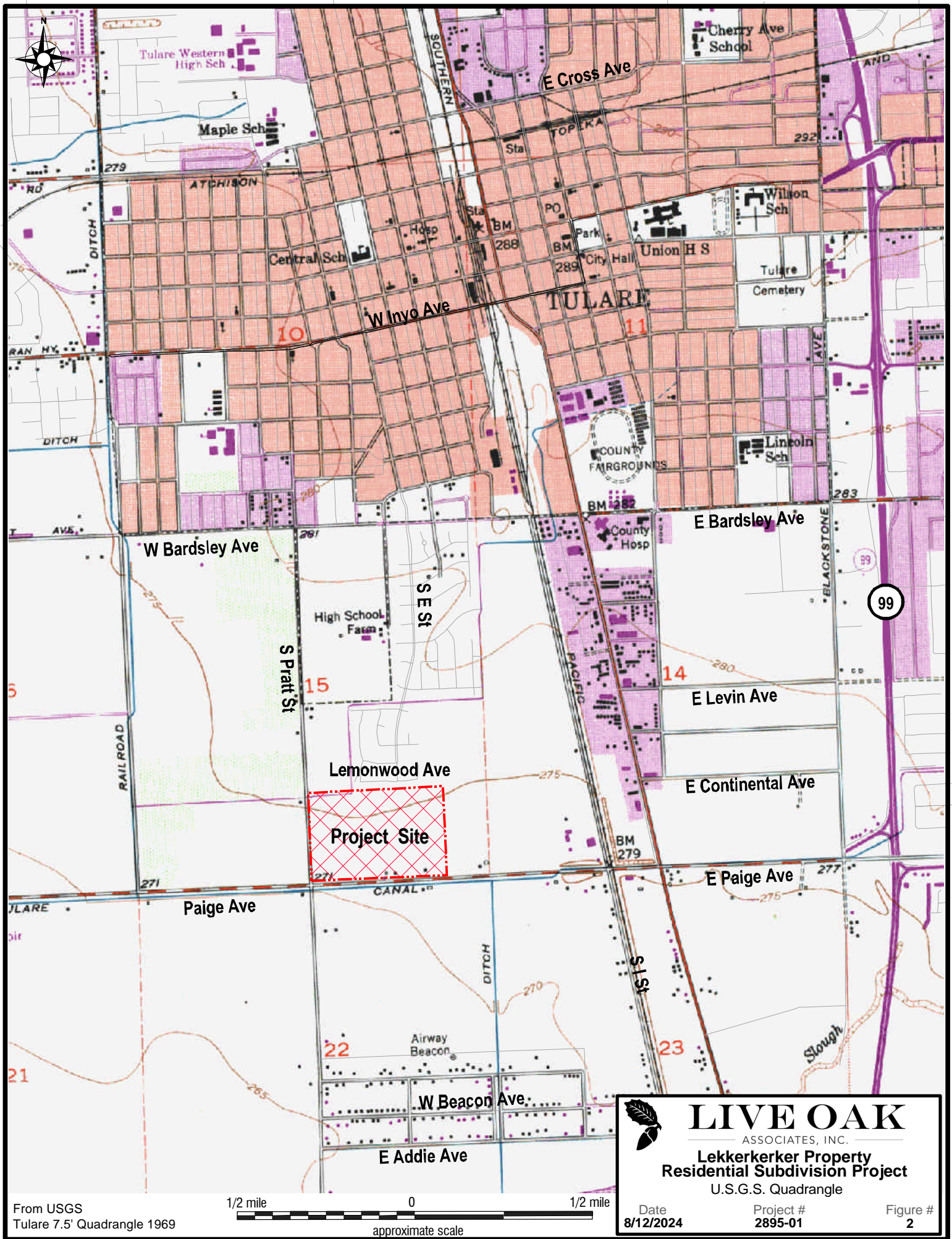
1.2 PROJECT DESCRIPTION

The proposed subdivision will divide the project site into 228 residential lots. The development will also include 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





-
- 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 2024); (2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2024); (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 July 24, 2024 by LOA biologist Natalie Neff. The survey consisted of 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 plane 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 11.5 inches, almost all of which falls between the months of October and March in the form of rain (National Weather Service 2024).

The project vicinity is characterized by dense urban areas associated with the City of Tulare as well as agricultural lands. Areas immediately surrounding the project site consist primarily of agricultural lands. The Elk Bayou is the principal drainage in the region 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, the Elk Bayou lies approximately 3.5 miles south of the project site.

2.2 PROJECT SITE

The project site consists of an almond (*Prunus amygdalus*) orchard with associated agricultural infrastructure that includes dirt roads, a fenced well enclosure, and a few feet of an irrigation ditch in the northwest corner. Analysis of aerial imagery indicates that the site has been used for agricultural purposes since at least 1956 (Historic Aerials 2024).

The site is relatively flat with an elevation of approximately 260 feet National Geodetic Vertical Datum (NGVD) (see Figure 2). Soils of the site comprise Nord fine sandy loam, 0 to 2 percent slopes and Colpien loam, 0 to 2 percent slopes. Neither soil is considered hydric, meaning they



do 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 would have no particular significance to biological resources of the site.

2.3 BIOTIC HABITATS

At the time of LOA's field survey, the project site supported a single land use: orchard. 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.

Aside from the almond trees, the site was sparsely vegetated with common weedy grasses and forbs such as barnyard grass (*Echinochloa crus-galli*), bearded sprangletop (*Leptochloa fascicularis*), and flaxleaf fleabane (*Erigeron bonariensis*).

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. The site does not provide suitable nesting habitat for raptors, though it does provide some foraging habitat for hawks such as Cooper's hawk (*Accipiter cooperii*), which sometimes forage in orchards. Other avian species likely to forage in the site's orchard include the California scrub jay (*Aphelocoma californica*) and American crow (*Corvus brachyrhynchos*).

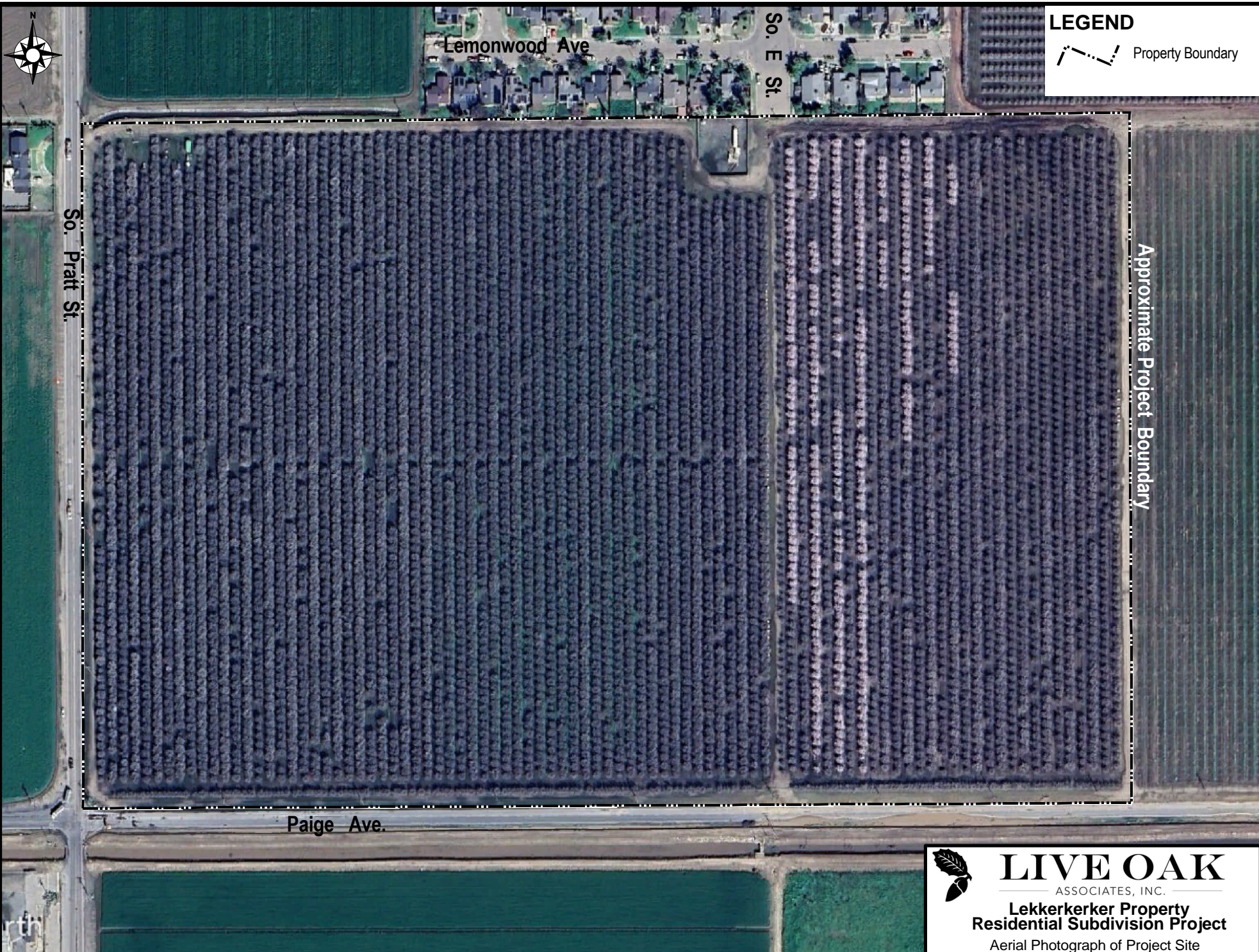
The northwest edge of the project site borders a small irrigation ditch that could provide aquatic habitat for amphibians such as western toad (*Anaxyrus boreas*) and Pacific tree frog (*Pseudacris regilla*); however, they would only be found on the site in small numbers, if at all. Reptile species like side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*) may forage in the orchard but their numbers are expected to be low as well.



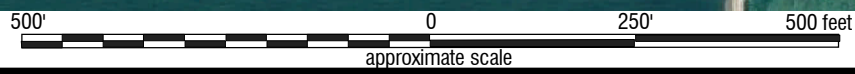
LEGEND



Property Boundary



Aerial Photo Courtesy of Google Earth
Photo Date 2/2024



LIVE OAK
ASSOCIATES, INC.

Lekkerkerker Property
Residential Subdivision Project

Aerial Photograph of Project Site

Date
8/12/2024

Project #
2895-01

Figure #
4



Small mammal use of the site may include the Botta's pocket gopher (*Thomomys bottae*), deer mouse (*Peromyscus maniculatus*), desert cottontails (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*). At the time of LOA's survey, burrowing rodent activity was minimal. Several Botta's pocket gopher burrows were found across the project site and a few California ground squirrel burrows were found on the eastern half of the project site.

Common mammalian predators such as coyotes (*Canis latrans*), raccoons (*Procyon lotor*), and striped skunks (*Mephitis mephitis*) may forage or pass through the site. Various bats may forage over the site, though roosting habitat is absent.

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 2024). 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 2024), *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 2024), *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/Range	*Occurrence within the Project Site
California Jewel-flower (<i>Caulanthus californicus</i>)	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. 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 (<i>Pseudobahia peirsonii</i>)	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. Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity. Moreover, the site lacks heavy clay soils required by this species.

CNPS-listed Species

Heartscale (<i>Atriplex cordulata</i> var. <i>cordulata</i>)	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 (<i>Atriplex cordulata</i> var. <i>erecticaulis</i>)	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 (<i>Atriplex depressa</i>)	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 (<i>Atriplex minuscula</i>)	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 (<i>Atriplex subtilis</i>)	CRPR 1B.2	Occurs in alkaline vernal pools; blooms July–Oct.; elevations below 400 ft.	Absent. Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
Recurved Larkspur (<i>Delphinium recurvatum</i>)	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. Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
Spiny-sepaed Button Celery (<i>Eryngium spinosepalum</i>)	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 (<i>Imperata brevifolia</i>)	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. 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 within the Project Site
Alkali-Sink Goldfields (<i>Lasthenia chrysantha</i>)	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. 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 (<i>Puccinellia simplex</i>)	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. Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.

ANIMALS

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra foothills.	Absent. Elderberry shrubs required by this species are absent from the site. The USFWS no longer considers Tulare County part of this species' range.
Crotch Bumble Bee (<i>Bombus crotchii</i>)	CCE	This bee is found in Coastal California east to the Sierra-Cascade crest and south into Mexico, where it occupies 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 <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Absent. The project site does not contain habitat for this species. The only known CNDDB occurrence in the vicinity is a 1966 record in the general vicinity of Visalia (CDFW 2024). The Crotch bumble bee is thought to be nearly extirpated from the valley floor (CDFW 2019).
Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	FT	Occurs in vernal pools, clear to tea-colored water in grass or mud-bottomed swales, and basalt depression pools.	Absent. Suitable habitat in the form of vernal pools is absent from the site and immediately surrounding lands.
Western Spadefoot (<i>Spea hammondi</i>)	FPT, CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary pools for breeding.	Absent. The small irrigation ditch on and adjacent to the project does not offer suitable habitat and no other suitable habitat is present on or near the project site. There are no CNDDB occurrences within the vicinity of the project site (CDFW 2024).
Northwestern Pond Turtle (<i>Actinemys marmorata</i>)	FPT, CSC	Associated with permanent bodies of water for breeding. Requires partially submerged rocks or logs for basking sites. Eggs are deposited in a variety of soil types near water's edge. Seasonal hibernation/estivation includes use of upland habitat from water sources including ground squirrel burrows and loose substrate for burying themselves.	Absent. The small irrigation ditch on and adjacent to the project does not offer suitable habitat and no other suitable habitat is present on or near the project site. There are no CNDDB occurrences within the vicinity of the project site (CDFW 2024).



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 within the Project Site
Blunt-Nosed Leopard Lizard (<i>Gambelia sila</i>)	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 CNDDDB occurrences within the vicinity of the project site (CDFW 2024).
Tricolored Blackbird (<i>Agelaius tricolor</i>)	CT, CSC	Breeds colonially near fresh water in dense bulrush, cattails, or thickets of willows or shrubs. Occasionally nests in wheat fields. Forages in a wide variety of habitats.	Unlikely. Tricolored blackbirds are known from the project vicinity; there are five CNDDDB occurrences documented within 10 miles of the project site (CDFW 2024) and over 10 sightings within 10 miles of the project site on eBird (eBird 2024), including one just a mile west of the site. However, due to the lack of suitable nesting and foraging habitat on site, tricolored blackbirds are unlikely to occur on the site itself.
Western Yellow-billed Cuckoo (<i>Coccyzus americanus occidentalis</i>)	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 project vicinity.
Swainson's Hawk (<i>Buteo swainsoni</i>)	CT	Summer migrant in the Central Valley. Forages in grasslands and fields close to riparian areas.	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 30 CNDDDB nesting occurrences within 10 miles of the site, with the closest located just 1 mile to the southeast (CDFW 2024), and over 50 eBird sightings in the same area (eBird 2024).
Tipton Kangaroo Rat (<i>Dipodomys nitratoides nitratoides</i>)	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 CNDDDB occurrences in the vicinity (CDFW 2024).
San Joaquin Kit Fox (<i>Vulpes macrotis mutica</i>)	FE, CT	Desert alkali scrub, annual grasslands of California's San Joaquin Valley and Tulare Basin, extending west into San Luis Obispo County. This species may forage in adjacent agricultural habitats.	Unlikely. This species was historically known from the project vicinity. There are eleven CNDDDB occurrences within 10 miles of the project site, with the closest mapped generally to Tulare in 1992 (CDFW 2024); the remaining nine 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 probability of kit fox occurrence on site.



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 within the Project Site
Northern California Legless Lizard (<i>Anniella pulchra</i>)	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 adjacent lands. There are no CNDDB occurrences within the vicinity of the project site (CDFW 2024).
Burrowing Owl (<i>Athene cunicularia</i>)	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. Orchards provide unsuitable habitat for this species.
Mountain Plover (<i>Charadrius montanus</i>)	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. There are no known occurrences within the vicinity of the project site (CDFW 2024) (eBird 2024).
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	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 has been repeatedly documented at the nearby wastewater treatment facility (eBird 2024). Orchard trees, while not typically used for nesting by this species, represent potential nesting habitat with some potential for this species to nest on site.
Pallid Bat (<i>Antrozous pallidus</i>)	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	Possible. Although the project site provides unsuitable roosting habitat for this species, the orchard may be utilized for foraging.
Western Mastiff Bat (<i>Eumops perotis californicus</i>)	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. The project site provides unsuitable roosting habitat for this species. This species may occasionally forage over the site.
American Badger (<i>Taxidea taxus</i>)	CSC	This species inhabits open and dry sections of grasslands, shrub, and forest habitats with friable soil.	Absent. The project site provides unsuitable habitat for this species.

* Explanation of 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 it 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 there because habitat requirements not met.

STATUS CODES

FE Federally Endangered
 FT Federally Threatened
 FPT Federally Proposed Threatened
 FC Federal Candidate
 FPD Federally (Proposed) Delisted

CE California Endangered
 CT California Threatened
 CSC California Species of Special Concern
 CRPR California Rare Plant Ranking
 CFP California Fully Protected
 CCE California Candidate Endangered



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.

An irrigation ditch borders the northern edge of the project site with a few square feet of it occurring in the northwest corner of the project site. This aquatic feature is unlikely to be considered jurisdictional by the USACE, RWQCB, or CDFW.

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.

Wildlife movement corridors are absent from the project site.



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 57 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 accessible 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, 14 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 vernal pool fairy shrimp (*Branchinecta lynchi*), Crotch bumblebee (*Bombus crotchii*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), blunt-nosed leopard lizard (*Gambelia sila*), western spadefoot (*Spea hammondi*), northwestern pond turtle (*Actinemys marmorata*), burrowing owl (*Athene*



cunicularia), mountain plover (*Charadrius montanus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), tricolored blackbird (*Agelaius tricolor*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), San Joaquin kit fox (*Vulpes macrotis mutica*), northern California legless lizard (*Anniella pulchra*), 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 this 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 Waters of the United States

Potential Impacts. As discussed, the project site appears to contain a few square feet of an irrigation ditch that is not likely to be considered a jurisdictional water. Furthermore, the



subdivision map (Figure 3), appears to show this portion of the ditch outside of development areas. As a result, impacts to jurisdictional waters are considered less than significant.

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 geographic features that could function as a wildlife movement corridor. Therefore, the project will have no impact on wildlife movement corridors.

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 July 24, 2024 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

AIZOACEAE – Fig-marigold Family

<i>Trianthema portulacastrum</i>	Desert Horse Purslane	FAC
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AMARANTHACEAE – Amaranth Family

<i>Amaranthus blitoides</i>	Procumbent Pigweed	FACU
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<i>Amaranthus retroflexus</i>	Redroot Amaranth	FACU
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ARECACEAE – Palm Family

<i>Washingtonia spp.</i>	Fan Palm	FACW
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ASTERACEAE – Sunflower Family

<i>Erigeron bonariensis</i>	Flaxleaf Fleabane	FACU
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MALVACEAE – Mallow Family

<i>Malva parviflora</i>	Cheeseweed	UPL
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POACEAE – Grass Family

<i>Cynodon dactylon</i>	Bermuda Grass	FAC
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<i>Echinochloa crus-galli</i>	Barnyard Grass	FACW
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<i>Leptochloa fusca</i>	Bearded Sprangletop	FACU
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ROSACEAE – Rose Family

<i>Prunus amygdalus</i>	Almond	UPL
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ZYGOPHYLLACEAE – Caltrops Family

<i>Tribulus terrestris</i>	Puncturevine	UPL
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**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 July 24, 2024.

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

Side-blotched Lizard (*Uta stansburiana*)

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 (Hérons, 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 (*Psaltiriparus 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)

Western Meadowlark (*Sturnella neglecta*)

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: Representative photo of California ground squirrel burrows found on site



Photo 3: Facing west, view at north border of orchard. Residential area on right.



Photo 4: Facing east, view at northern border of project site featuring the irrigation ditch and other surrounding land uses.



Photo 5: North border of project site featuring a fenced in well.



Photo 6: Facing north, western border of project site featuring South Pratt Street and surrounding land uses including an alfalfa field and residential area.



Photo 7: Facing east, southern border of project site featuring West Paige Ave and surrounding land uses.



Photo 8: Facing north, eastern border of project site featuring surrounding land uses, which are also orchards (right and background of photo).

Appendix D

Cultural Resources Technical Memorandum

TECHNICAL MEMORANDUM

Date: July 15, 2024

To: Kelsey George, Senior Planner, 4Creeks, Inc.

From: Consuelo Sauls, M.A., RPA, Archaeologist, Taylored Archaeology

Subject: **Cultural Resources Technical Memorandum Desktop Review for the Lekkerkerker Tentative Subdivision Map Project, City of Tulare, County of Tulare, California**

Introduction

Taylored Archaeology has conducted a records search for the Lekkerkerker Tentative Subdivision Map Project (Project). The proposed Project consists of a single-family residential development located in the City of Tulare, Tulare County, California. The purpose of the records search is to identify all previously recorded cultural resources within the Project area. It entails a review of all previously recorded archaeological sites and historic properties situated within a half-mile radius of the surrounding 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 would develop 228 single-family residential lots, an approximately 0.62-acre well site, and associated paved streets with sidewalks, streetlights, utilities, and landscaping. Local streets within the development will connect to South Pratt Street to the west and to West Paige Avenue to the south.

The Project site is approximately 57 acres of rural land and is at the northeast corner of West Paige Avenue and South Pratt Street in the City of Tulare in Tulare County, California. The site is surrounded by residential development to the north, and agricultural land to the west, east, and south. The Project site consists of Tulare County Assessor's Parcel Numbers 174-030-009 and 174-030-010 (Figure 1). Furthermore, the Project site is in Township 20 South, Range 24 East, Section 15 on the United States Geological Survey (USGS) 7.5-minute series Tulare, California topographic quadrangle map (Figure 2).

Methodology

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 and 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. Archival research

included a review of historical maps, such as historical topographic and aerial maps, for the Project site and vicinity and 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. 24-286) for the Project on July 1, 2024 (Attachment B).

The records search revealed three cultural resources reports within the Project area (Table 1). These studies include one archaeological literature review, one book on a narrative of the 1851 Mariposa War, and a phase I archaeological survey report. Further review of these reports indicates that none of these studies overlap with the Project boundary. TU-01961 surveyed within the public right-of-way along West Paige Avenue adjacent to the Project boundary to the southwest and did not result in the identification of any cultural resources.

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-01190	Annie R. Mitchell	1957	Jim Savage and the Tulareño Indians	Book; No survey of Project area
TU-01961	David S. Whitley and Robert Azpitarte	2022	Phase I Survey/Class III Inventory PNP Matheny Pipeline Project, Tulare County, California	Archaeological and Architectural/Historical Field Survey

The records search identified four cultural resources reports (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. All surveys listed in Table 2 resulted in negative findings within a 0.5-mile radius of the Project boundary.

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 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-00103	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-01059	Mary S. Kiely and Russell C. Fey	1987	City of Tulare Historic Resources Inventory	Architectural/Historical field survey
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

No cultural resources were previously recorded within the Project area.

Five cultural resources, as shown in Table 3, were previously recorded within a 0.5-mile radius of the Project area. Four resources, all historic era, are more than 0.25 miles outside the Project boundary. One resource, P-54-005296, a segment of the Tulare Canal, is located 80 feet south of the Project site across West Paige Avenue. Overall, the Project will not impact the identified resources summarized in Table 3.

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-54-002160	Historic	Site	Remnants of fallen structure or house with associated artifacts	Not evaluated	0.34 miles northeast
P-54-002184	Historic	Structure	A segment of Tulare Canal	Not evaluated	0.43 miles east
P-54-004626	Historic	Structure	Remnants of segment of the Southern Pacific Railroad	Eligible for NRHP (Criterion A)	0.42 miles east
P-54-005296	Historic	Structure	A segment of the Tulare Irrigation Canal	Eligible for CRHR (Criterion 1 and 3)	0.02 miles south
P-54-005297	Historic	Structure	A segment of U.S. 99/1 Street	Not eligible for NRHP and CRHR	0.40 miles east

Archival Research

Available topographic map coverage of the Project site ranges from 1925 to 2021. Historical topographic maps show the Project area appears to have been used as agriculture and rural residences. A 1925 USGS 7.5-minute topographic map of the Tulare, CA quadrangle shows the Project bordered by roads to the west and south corresponding with the current alignments of South Pratt Street and West Paige Avenue. It additionally shows two buildings along West Paige Avenue in the southeastern portion of the Project site. The 1925 map also shows Tulare Canal running east to west on the south side of West Paige Avenue. The 1950 topographic map shows the same two buildings and canal/road alignments, as well as three more buildings within the Project boundary along South Pratt Street and West Paige Avenue (USGS). The photorevised 1971 map does not show any buildings along South Pratt Street while all other buildings and

canal/road alignments remain the same at 1950 (USGS). No buildings are depicted on Project site on topographic maps after 1971.

Available historic aerial photograph coverage of the Project site ranges from 1946 to 2024. An aerial photograph from 1946 shows the Project site used for row crops and shows three building clusters in the northwest, south central, and southeast sections of the Project site consistent with buildings shown on the 1925 USGS topographic map (USAAA). A 1969 aerial photograph shows the houses in the south and southeast of the Project site still present but the house in the northwest corner of the site no longer appears (NETROnline). In the 1984 aerial photograph the Project site is completely row crops with not buildings on site. A well site was constructed on the north end of the Project site near South E Street between June and September 2009, and an orchard planted in 2015 (Google Earth). No other changes appear on the Project site between 2015 and 2024.

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. Five historic-era cultural 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. 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 appear to have been demolished and removed since at least 1984. The one structure on the Project site, a well site in the northern central portion of the Project, appears to have been constructed in 2009.

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 Y. Sauls, M.A., RPA 41591505
Professional Archaeologist

Attachment A: Project Maps

Attachment B: Records Search Results Letter

References

Google Earth Pro.

2024 Google Earth Software, Google, Inc.

NETROnline

2024 "Historic Aerials". <https://www.historicaerials.com/> Accessed August 30, 2023.

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.

1971 *Tulare, California, Quadrangle Map, 1950, photo revised 1971*. 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 14-30, <http://digitized.library.fresnostate.edu/cdm/singleitem/collection/aerial/id/17356>, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, accessed July 12, 2024.

ATTACHMENT A

Project Maps

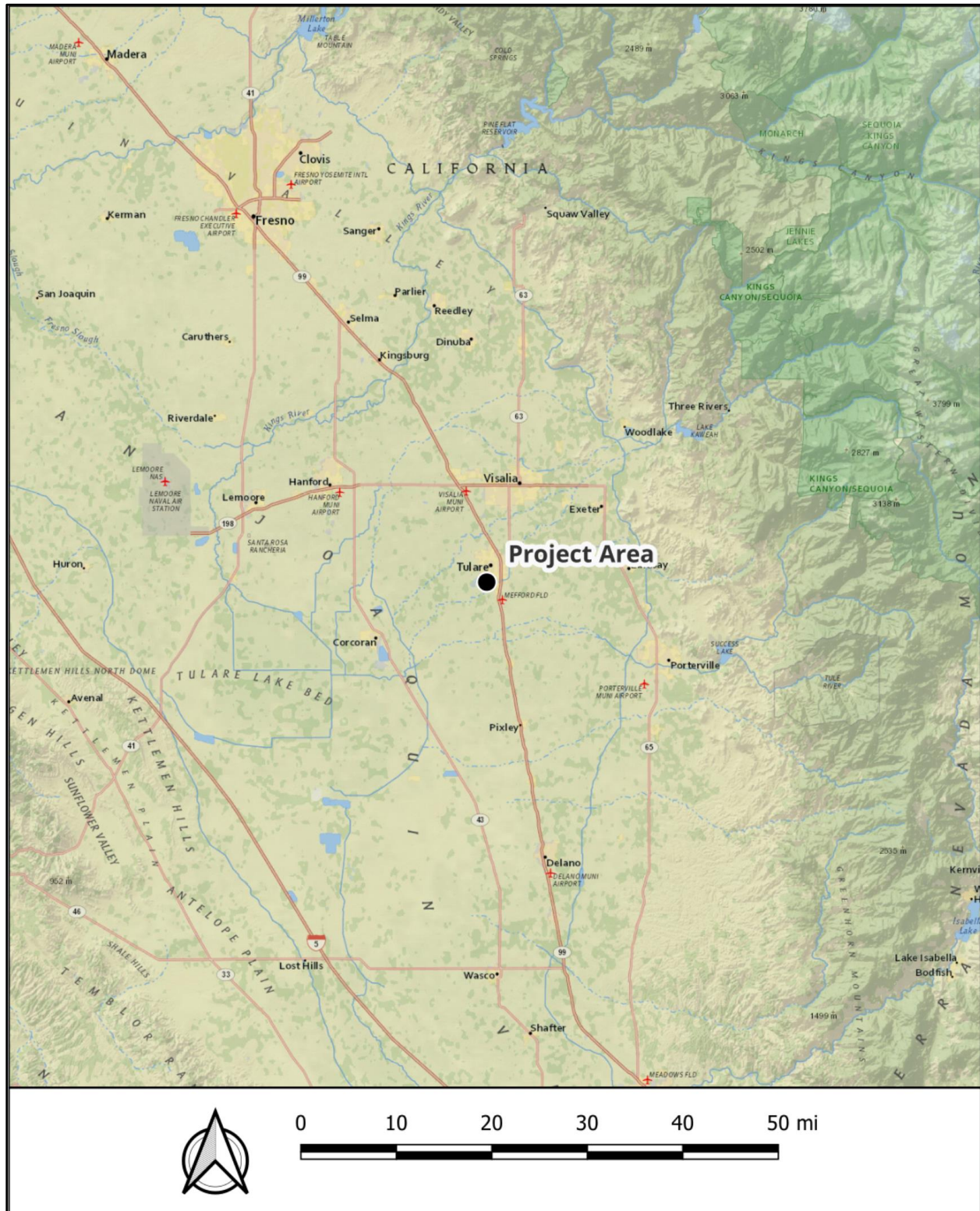


Figure 1 Project vicinity in Tulare, California

6083 N Figarden Dr., Ste. 616, Fresno, CA 93722
559.797.1572 / csaulsarchaeo@gmail.com

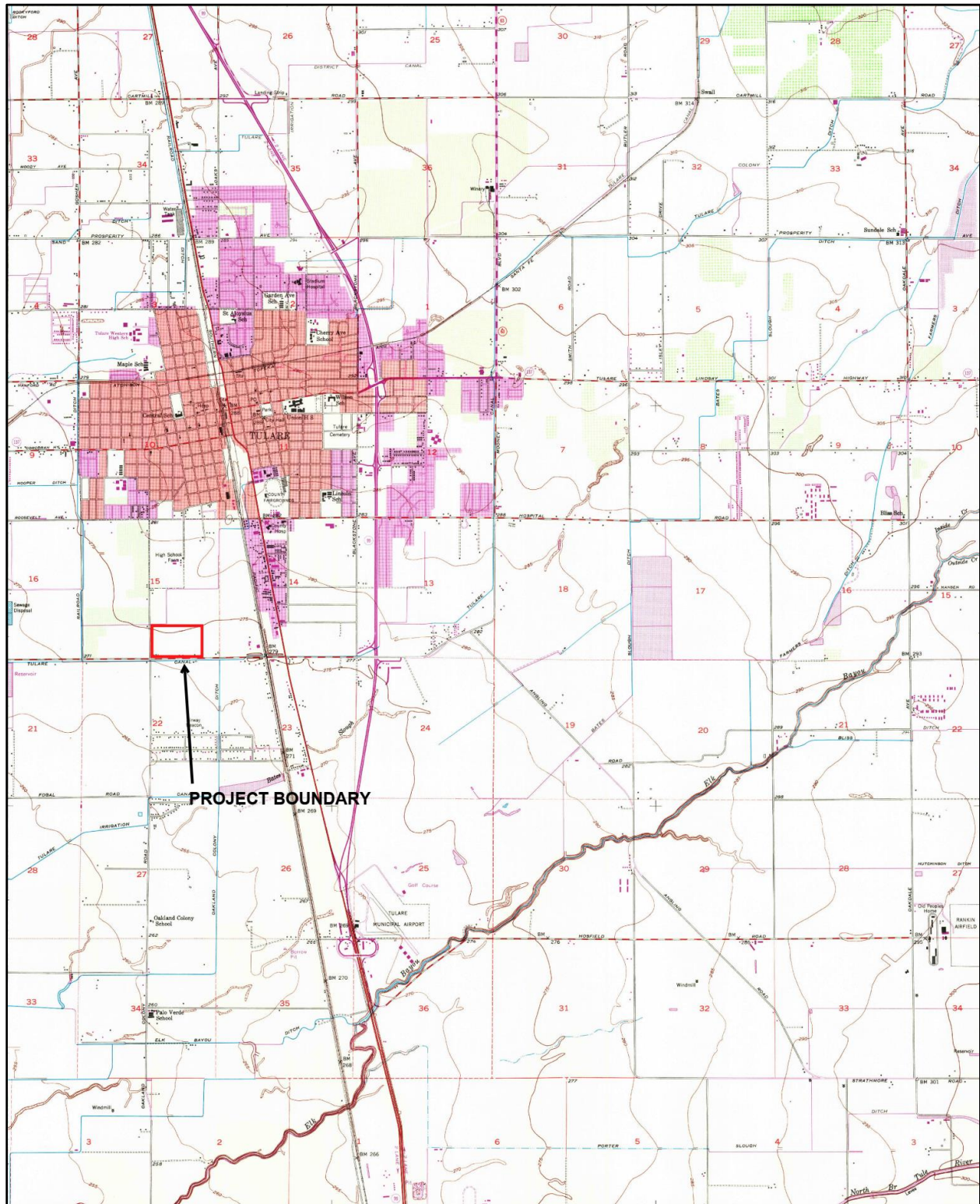


Figure 2 Project location on the USGS Tulare, CA 7.5-minute quadrangle

**6083 N Figarden Dr., Ste. 616, Fresno, CA 93722
559.797.1572 / csaulsarchaeo@gmail.com**



Figure 3 Aerial view of the Project boundary



ATTACHMENT B

Records Search Results



7/1/2024

Consuelo Sauls
Tailored Archaeology
6083 N. Figarden Drive, Suite 616
Fresno, CA 93722

Re: Lekkerkerker Tentative Subdivision Map Project
Records Search File No.: 24-286

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on Tulare USGS 7.5' quads. 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

Resources within project area:	None
Resources within 0.5 mile radius:	P-54-002160, 002184, 004626, 005296, 005297
Reports within project area:	TU-00041, 01190, 01961
Reports within 0.5 mile radius:	TU-00102, 00103, 01059, 01324

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.glorerecords.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.

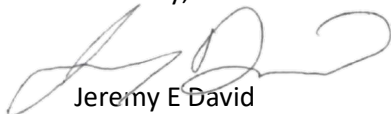
The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained 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,



Jeremy E David
Assistant Coordinator

Appendix E

Phase I Environmental Site Assessment Report

Prepared For

**BLUE FERN DEVELOPMENT
18300 REDMOND WAY, SUITE 120
REDMOND, WA 98052**

**PHASE I ENVIRONMENTAL
SITE ASSESSMENT REPORT**

**PROPOSED DEVELOPMENT
APNs 174-030-007, 174-030-009 & 174-030-010
NORTHEAST CORNER OF
SOUTH PRATT STREET & WEST PAIGE AVENUE
TULARE, CALIFORNIA**

**Date Issued: June 6, 2024
Project Number 24-58**

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) 174-030-007, 174-030-009 & 174-030-010, 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 three parcels of land totaling approximately 88.16± acres located at the northeast corner of South Pratt Street and West Paige Avenue in Tulare, California. The Subject Property is identified as APNs 174-030-007, 174-030-009 & 174-030-010 with no assigned address. The Subject Property consists of agricultural land. Improvements to the Subject Property include one not-in-use irrigation water well located on the northeast area of the site, two irrigation canal water pumps on the northwest portion of the site, an irrigation water filtration system on the northwest portion of the site, and a City of Tulare municipal water well located on the central north portion of the site. A portable cargo van, utilized for general storage, and two poly tanks are located on the northwest portion of the site next to the water filtration system. The poly tanks are approximately 2,500 gallons in size and labeled as containing liquid fertilizer and sulfuric acid. Sulfuric acid is utilized as a water system treatment for the drip irrigation components.

Based on available historical documentation, the Subject Property consisted of agricultural land with three rural residences, outbuildings, and a barn type structure from at least 1937 up to the mid-1960s. One of the residences was no longer present by the late 1960s and the remaining two residences, barn-type structure and outbuildings were no longer present and all areas of the Subject Property were in use as agricultural land by the mid-1980s. The City of Tulare municipal water well located on the central north portion of the Subject Property appears to have been developed on the site in approximately 2010.

The Subject Property is situated within an agricultural and residential area of Tulare, California. The Subject Property is bound to the north by single-family residences and agricultural land; to the east by agricultural land; to the south by West Paige Avenue followed by agricultural land; and to the west by South Pratt Street followed by agricultural land and a single-family residence.

According to the online database known as Geotracker (<http://geotracker.waterboards.ca.gov>) maintained by the State Water Resource Control Board (SWRCB), groundwater beneath a site approximately 0.65 miles east of the Subject Property was at a depth of 150 in 2015 and direction of flow was identified as west southwest.

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 identified one RCRA TSD, one RECYCLING, one LUST, one HHSS, one DELISTED CTNK, one HIST TANK, two CUPA, one PFAS IND, 14 PFAS SAMPLING, one PFAS INVEST, two INSP COMP ENF, one CHMIRS, one HAZ TSD, one CERS HAZ, and one DELISTED HAZ located within

the prescribed search radii. Based on review of regulatory documentation, off-site location, and/or estimated direction of groundwater flow, these facilities do not represent a recognized environmental condition or concern.

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 174-030-007, 174-030-009 & 174-030-010, 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:

- No on-site RECs were identified during the course of this assessment.

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 included one not-in-use irrigation water well on the northeast area of the site. If the well is not to be used, the well should be properly destroyed in accordance with State and local guidelines.
- 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

Based on the information available at the time of this assessment, Paul Humphrey, EP does not recommend further investigation of the Property at this time.

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 174-030-007, 174-030-009 & 174-030-010, 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 May 22, 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 (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*.

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 at the northeast corner of South Pratt Street and West Paige Avenue Tulare, California. The Subject Property is identified as Tulare County Recorder's Office as APNs 174-030-007, 174-030-009 & 174-030-010.

2.2 Site and Vicinity General Characteristics

The Subject Property is located in an agricultural and residential area consisting of agricultural land and single-family residences.

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 three parcels of land totaling approximately 88.16± acres. The Subject Property consists of agricultural land. Improvements to the Subject Property include one not-in-use irrigation water well located on the northeast area of the site, two irrigation canal water pumps on the northwest portion of the site, an irrigation water filtration system on the northwest portion of the site, and a City of Tulare municipal water well located on the central north portion of the site. A portable cargo van, utilized for general storage, and two poly tanks are located on the northwest portion of the site next to the water filtration system. The poly tanks are approximately 2,500 gallons in size and labeled as containing liquid fertilizer and sulfuric acid. Sulfuric acid is utilized as a water system treatment for the drip irrigation components.

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 residences and agricultural land
- East:** Agricultural land
- South:** West Paige Avenue followed by agricultural land
- West:** South Pratt Street followed by agricultural land and a 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.

<i>Subject Property Owner:</i>	Patti Lekkekerker, Valof Brothers LP
<i>Subject Property Manager:</i>	Jacob DeGroot, Jimi Valof
<i>Occupants:</i>	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 unmappable (“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	1	No
RCRA LQG, SQG, CESQGs, VGN, NLR, NON GEN	0.25	No	0	
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	0	

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	1	No
UST, UST SWEEPS	0.25	No	0	
UST CLOSURE	0.5	No	0	
HHSS, AST, DELISTED TNK, CERS TANK	0.25	No	1	No
DELISTED HAZ, LUR, HLUR, DEED, VCP	0.5	No	0	
CLEANUP SITES, DELISTED CLEANUP	0.5	No	0	
CERS HAZ	0.125	No	1	No
DELISTED CTNK, HIST TANK	0.25	No	2	No
TRIBAL LISTINGS	0.25-0.5	No	0	
DELISTED COUNTY, CUPA	0.25	No	2	No
EMISSIONS	0.25	No	0	
Additional State & Federal Listings	PO-1	No	22	No

The Subject Property was not identified in the database. The ERIS database identified one RCRA TSD, one RECYCLING, one LUST, one HHSS, one DELISTED CTNK, one HIST TANK, two CUPA, one PFAS IND, 14 PFAS SAMPLING, one PFAS INVEST, two INSP COMP ENF, one CHMIRS, one HAZ TSD, one CERS HAZ, and one DELISTED HAZ located within the prescribed search radii. Based on review of regulatory documentation, off-site location, and/or estimated direction of groundwater flow, these facilities do not represent a recognized environmental condition or concern.

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 May 22, 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 May 22, 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 was 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 275 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 three small structures on the south portion of the site typical of rural residences and/or outbuildings.

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 database known as Geotracker maintained by the SWRCB, groundwater beneath a site approximately 0.65 miles east of the Subject Property was at a depth of 150 in 2015 and direction of flow was identified as west southwest.

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, a reasonable probability was not identified to indicate that a VEC exists at the Subject Property.

4.4 Historical Use Information: Subject Property and Adjoining Properties

Based on available historical documentation, the Subject Property consisted of agricultural land with three rural residences, outbuildings, and a barn type structure from at least 1937 up to the mid-1960s. One of the residences was no longer present by the late 1960s and the remaining two residences, barn-type structure and outbuildings were no longer present and all areas of the Subject Property were in use as agricultural land by the mid-1980s. The City of Tulare municipal water well located on the central north portion of the Subject Property appears to have been developed on the site in approximately 2010.

The adjoining properties consisted of agricultural land and a few rural residences from at least 1937 up to the mid-1990s. A portion of the north adjoining property was developed with single-

family residences beginning in the mid-1990s with the remaining areas continuing in agricultural use.

4.4.1 Aerial Photographs

Available aerial photographs dated 1937, 1946, 1952, 1966, 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 including two rural residences, outbuildings, and a barn type structure on the south portion of the site, a rural residence and outbuildings on the northwest area of the site, and agricultural land on the remaining areas. The north adjoining property appears as agricultural land. The east adjoining property appears as agricultural land. The south adjoining property appears as a roadway followed by agricultural land. The west adjoining property appears as a roadway followed by agricultural land.

Date: 1946
Scale: 1" = 500'
Photo ID: Fairchild
Description: This photograph depicts the Subject Property and adjoining properties as in the 1937 photograph.

Date: 1952
Scale: 1" = 500'
Photo ID: ASCS
Description: This photograph depicts the Subject Property and adjoining properties as in the 1946 photograph.

Date: 1966
Scale: 1" = 500'
Photo ID: MD
Description: This photograph depicts the Subject Property as including two rural residences, outbuildings, and a barn type structure on the south portion of the site and agricultural land on the remaining areas. The adjoining properties appear as in the 1952 photograph.

Date: 1969
Scale: 1" = 500'
Photo ID: USGS
Description: This photograph depicts the Subject Property and adjoining properties as in the 1966 photograph.

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 east, south and west adjoining properties as in the 1987 photograph. The north adjoining property appears as agricultural land and single-family residences.
Date:	2003, 2004, 2005, 2006, 2009
Scale:	1" = 500'
Photo ID:	USDA
Description:	These photographs depict the Subject Property and adjoining properties as in the 1994 photograph.
Date:	2010, 2012, 2014, 2016, 2018, 2020
Scale:	1" = 500'
Photo ID:	USDA
Description:	These photographs depict the Subject Property and adjoining properties similar to the 1994 photograph. The City of Tulare municipal water well appears to be present on the central north portion of the Subject Property.
Date:	2023
Scale:	1" = 500'
Photo ID:	MAXAR
Description:	This photograph depicts the Subject Property and adjoining properties as in the 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
1982, 1992, 2001, 2015, 2019	No listing in likely address range of the Subject Property

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 May 22, 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 and residential area at the northeast corner of South Pratt Street and West Paige 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

The Subject Property included one not-in-use irrigation water well on the northeast area of the site. If the well is not to be used, the well should be properly destroyed in accordance with State and local guidelines.

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

A portable cargo van, utilized for general storage, and two poly tanks are located on the northwest portion of the site next to the water filtration system. The poly tanks are approximately 2,500 gallons in size and labeled as containing liquid fertilizer and sulfuric acid. Sulfuric acid is utilized as a water system treatment for the drip irrigation components.

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

Discussion of two, on-site poly tanks is included in Section 5.5.1 above.

No evidence of 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 representative of the owner of the Subject Property parcel 174-030-007 was identified as Jimi Valof. Mr. Valof 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.

The representative of the owner of the Subject Property parcels 174-030-009 and 174-030-010 was identified as Jacob DeGroot. Mr. DeGroot 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.

Pertinent information provided by Mr. Valof and Mr. DeGroot is included in the appropriate sections of this report.

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.

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

No off-site RECs were identified that were considered likely to impact 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, no recognized environmental conditions in connection with the Subject Property were 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 174-030-007, 174-030-009 & 174-030-010, Tulare, California, the Subject Property. Any exceptions to or deletions from this practice are described in Section 1.4 of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the Property.

Paul Humphrey, EP's investigation has revealed the following BERs associated with the Subject Property or nearby properties:

- The Subject Property included one not-in-use irrigation water well on the northeast area of the site. If the well is not to be used, the well should be properly destroyed in accordance with State and local guidelines.
- 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

Based on the information available at the time of this assessment, Paul Humphrey, EP does not recommend further investigation of the Property at this time.

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, NEC S Pratt & W Paige, Tulare, California, Job number 24-58

ERIS, Radius Database Report, NEC S Pratt & W Paige, Tulare, California, Job number 24-58

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

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.

A handwritten signature in black ink, appearing to read "Paul J. Humphrey". The signature is fluid and cursive, with the first name "Paul" and last name "Humphrey" clearly distinguishable.

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 releases (see § 312.1(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 current in his or her field through participation in continuing education or other activities. (4) The definition of environmental professional provided 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 laws 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.

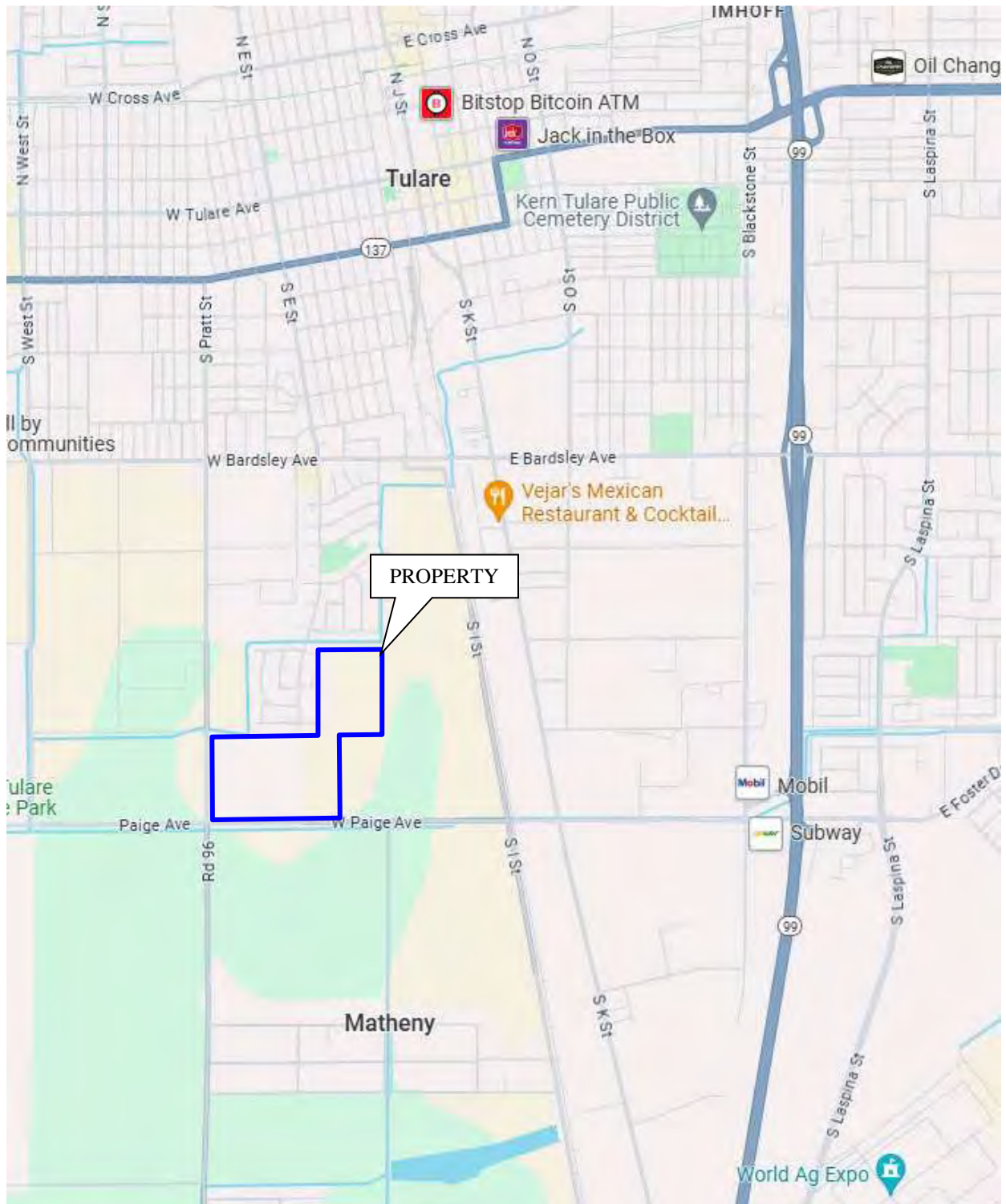
10.2 Relevant Experience

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 subsurface 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 § 312.1(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

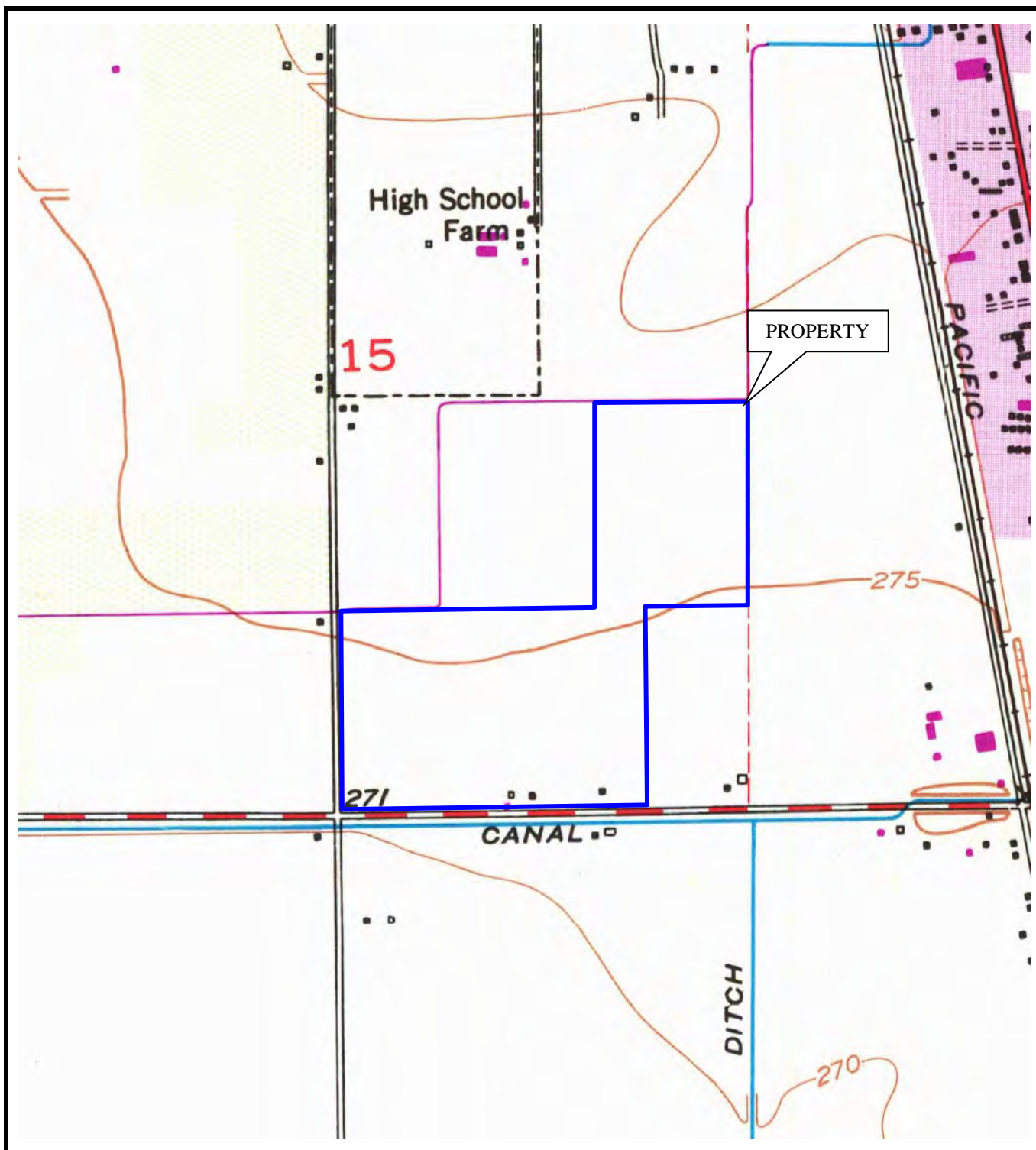
↑ NORTH

PAUL HUMPHREY, EP
7402 E. CLINTON AVENUE
FRESNO, CA 93737
(559) 977-9813

Site: Proposed Development
 Site Address: APNs 174-030-007, -009, & -010
 Tulare, CA
 Project Number: 24-58



<p>SITE PLAN</p>	<p>↑ NORTH Not to scale</p>
<p>PAUL HUMPHREY, EP 7402 E. CLINTON AVENUE FRESNO, CA 93737 (559) 977-9813</p>	<p>Site: Proposed Development Site Address: APNs 174-030-007, -009, & -010 Tulare, CA Project Number: 24-58</p>



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



N

APPENDIX A

SITE PHOTOGRAPHS



1. West portion of Subject Property along South Pratt Street.



2. Irrigation canal pumps northwest portion of Subject Property.



3. Storage container, water filtration system, and poly tanks on northwest portion of Subject Property.



4. Central north portion of the Subject Property.



5. Central northeast portion of Subject Property.



6. Municipal well on central north portion of Subject Property, north adjoining residences in background.



7. Inactive water well on northeast portion of Subject Property.



8. Central east portion of Subject Property.



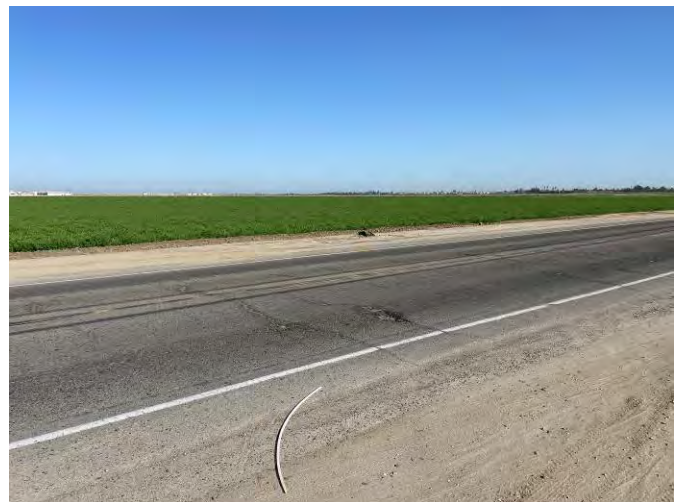
9. East boundary of Subject Property (right) and east adjoining agricultural land (far left).



10. South portion of Subject Property.



11. View across Paige Avenue of south adjoining agricultural land.



12. View across Pratt Street of west adjoining agricultural land.

APPENDIX B

HISTORICAL RESEARCH DOCUMENTATION

EXHIBIT B-1

AERIAL PHOTOGRAPHS



HISTORICAL AERIALS

Project Property: Blue Fern
NEC S Pratt & W Paige
Tulare CA 93274

Project No: 24-58

Requested By: Paul Humphrey, REPA

Order No: 24052300815

Date Completed: May 28, 2024

Aerial Maps included in this report are produced by the sources listed above and are to be used for research purposes including a phase I report. Maps are not to be resold as commercial property. ERIS provides no warranty of accuracy or liability. The information contained in this report has been produced using aerial photos listed in above sources by ERIS Information Inc. (in the US) and ERIS Information Limited Partnership (in Canada), both doing business as 'ERIS'. The maps contained in this report do not purport to be and do not constitute a guarantee of the accuracy of the information contained herein. Although ERIS has endeavored to present information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.

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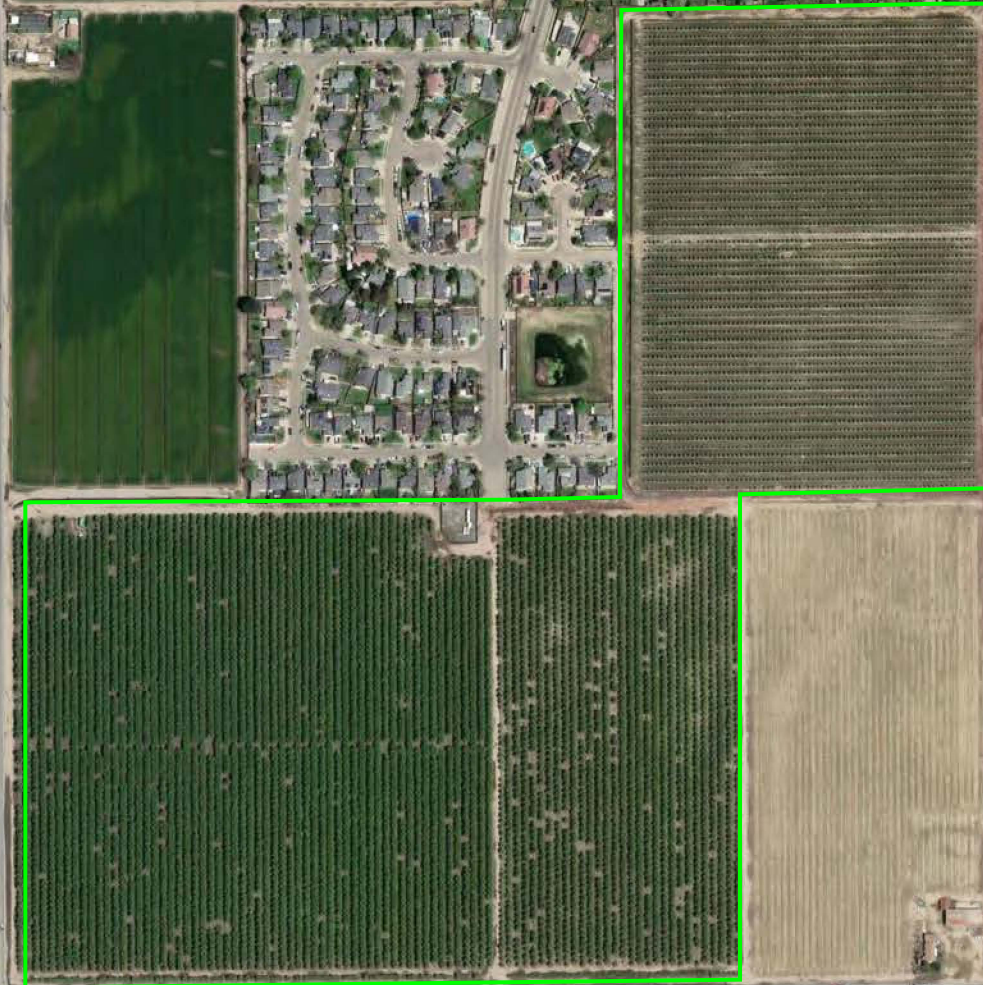
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2020	United States Department of Agriculture	1" = 500'	
2018	United States Department of Agriculture	1" = 500'	
2016	United States Department of Agriculture	1" = 500'	
2014	United States Department of Agriculture	1" = 500'	
2012	United States Department 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'	
1966	Mcdonnell Douglas	1" = 500'	
1952	Agricultural Stabilization & Conserv. Service	1" = 500'	
1946	Fairchild	1" = 500'	
1937	Agricultural Stabilization & Conserv. Service	1" = 500'	

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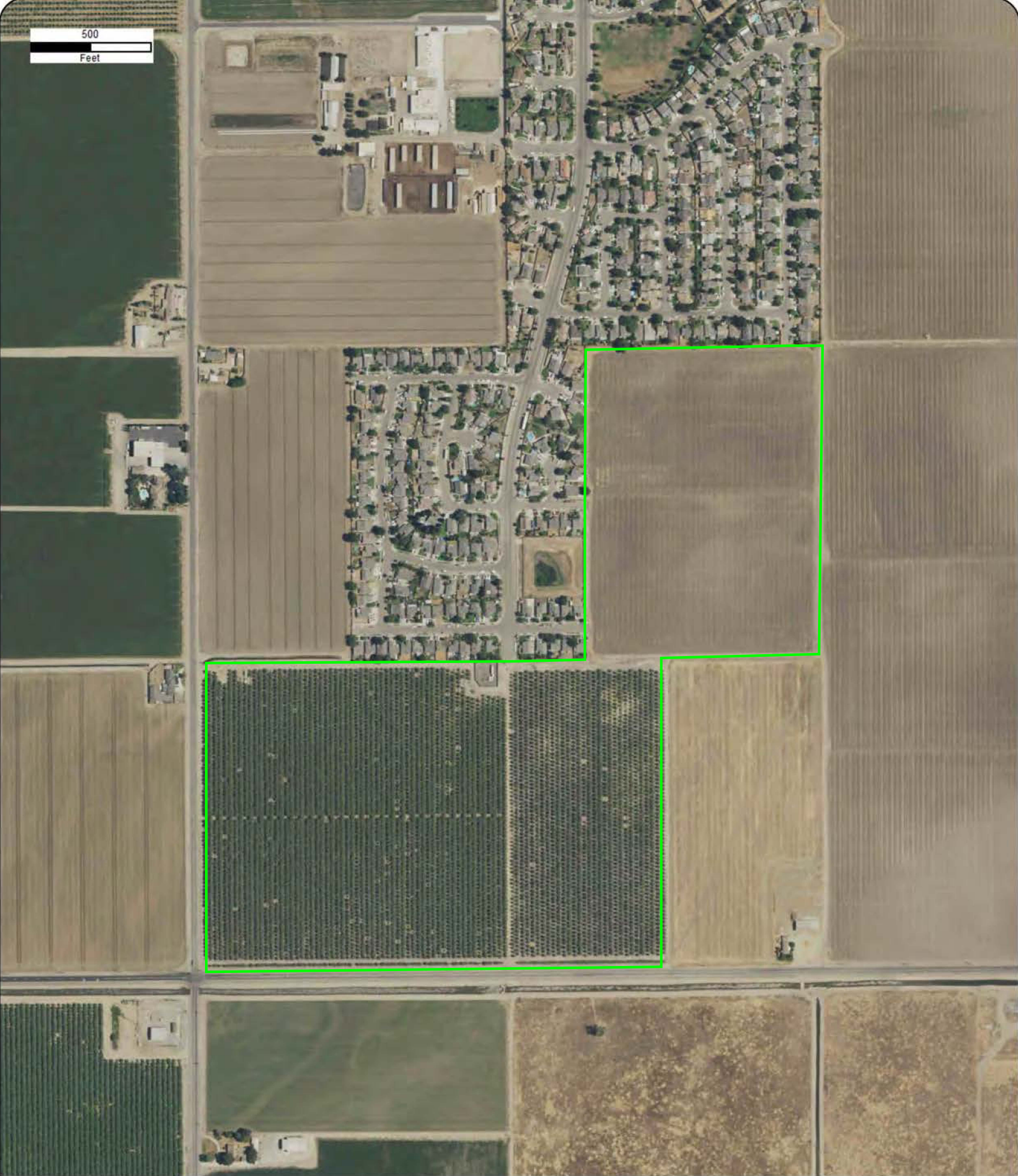
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Order No: 24052300815



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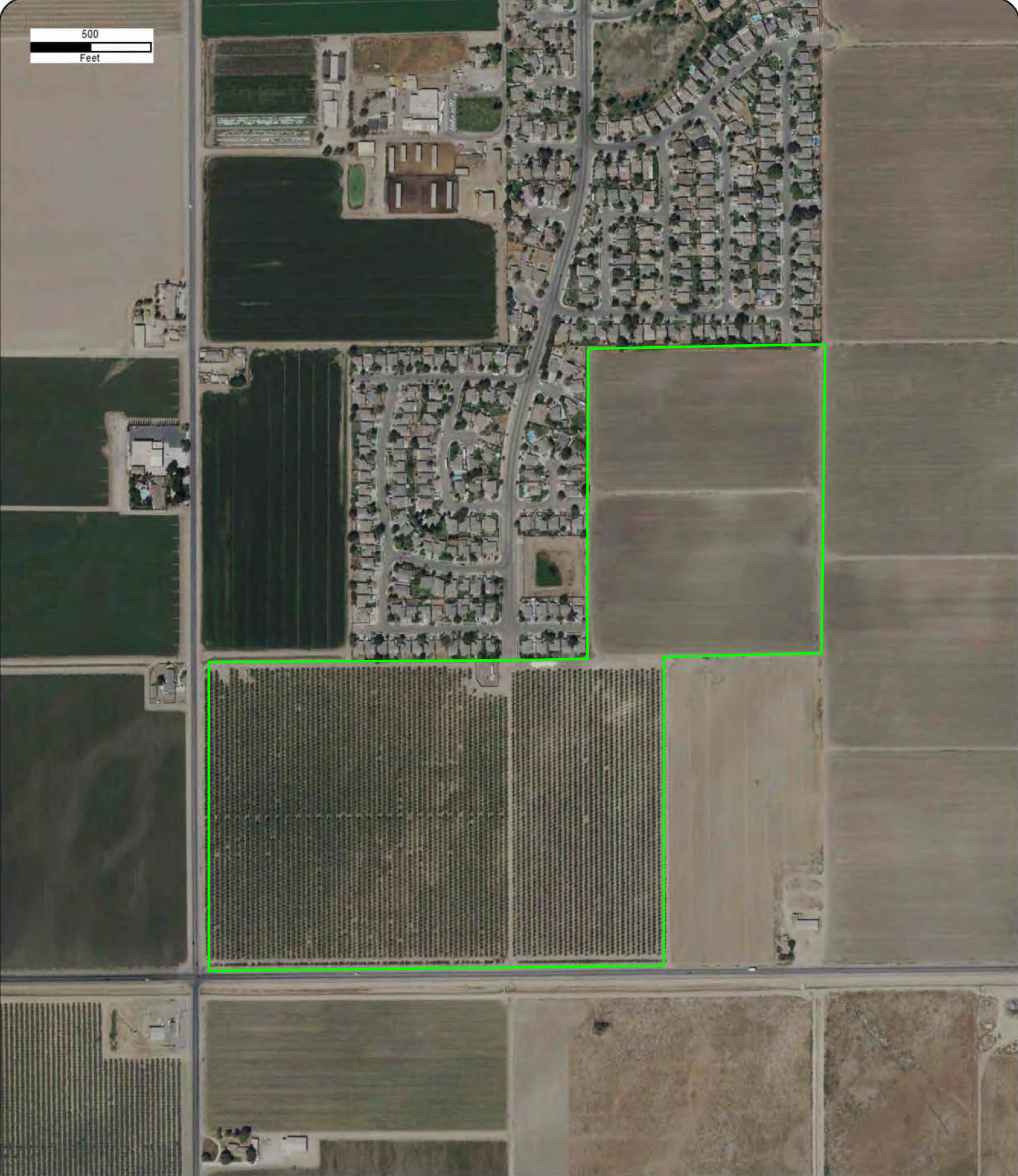
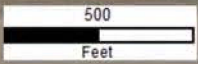


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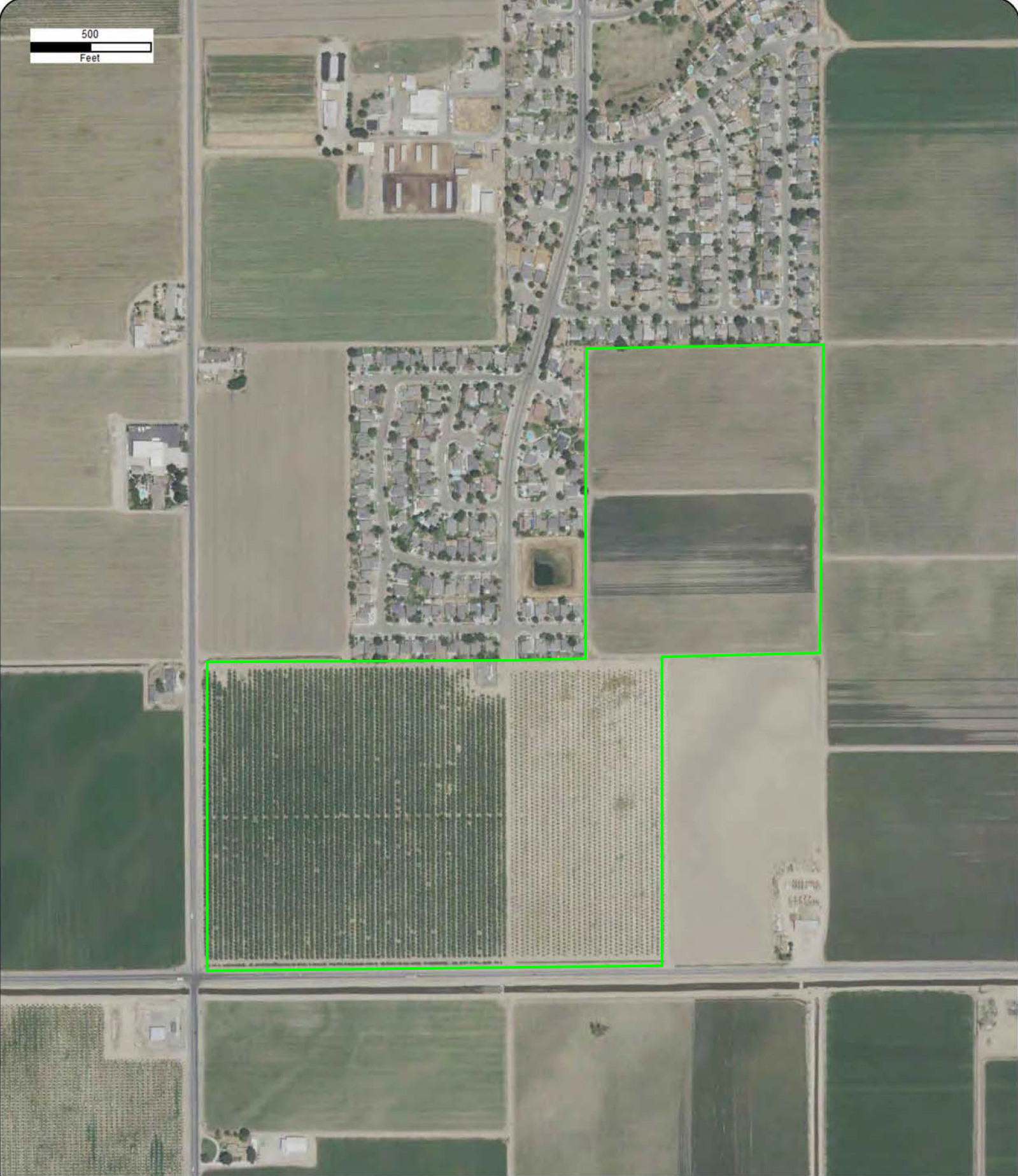
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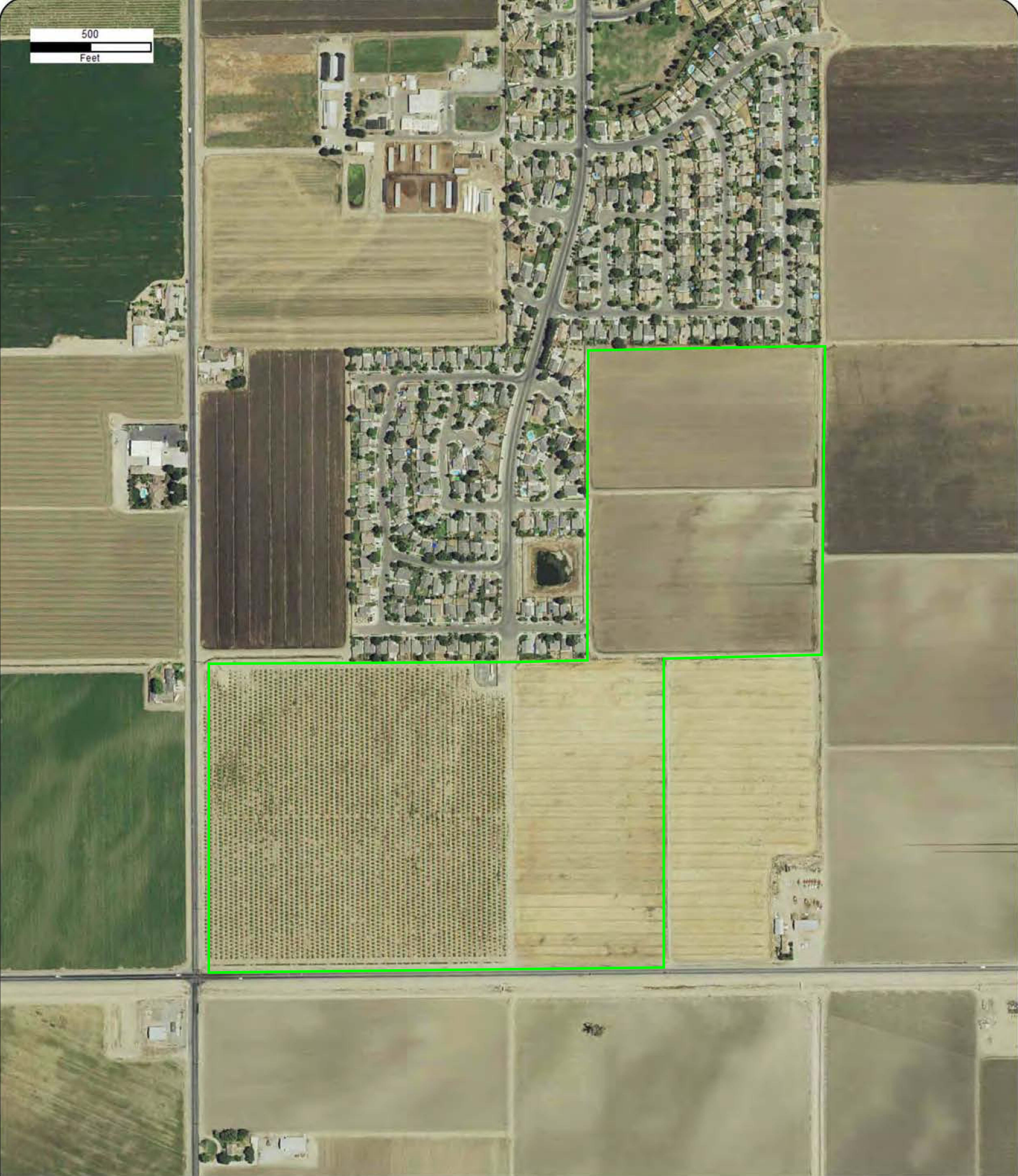
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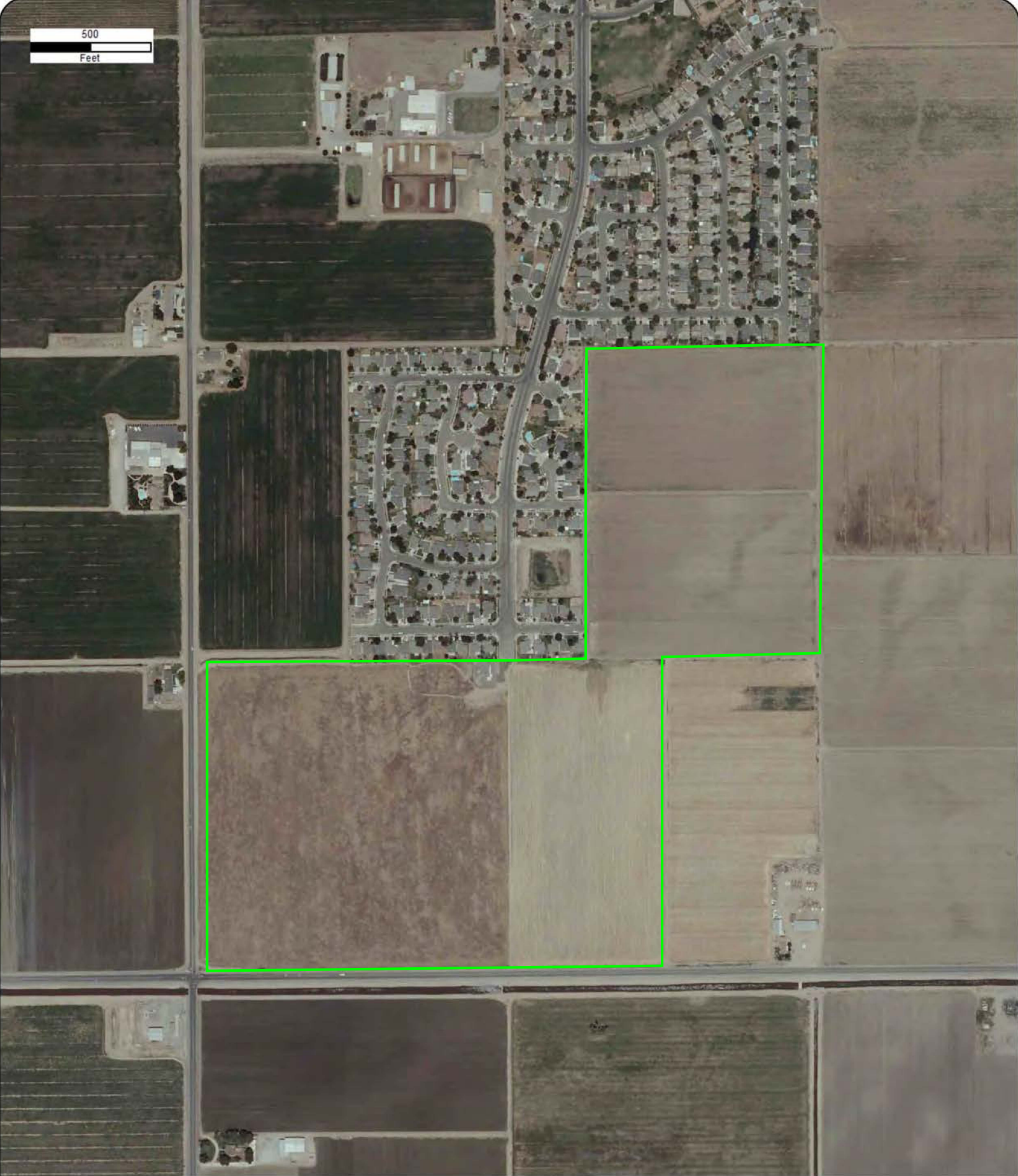
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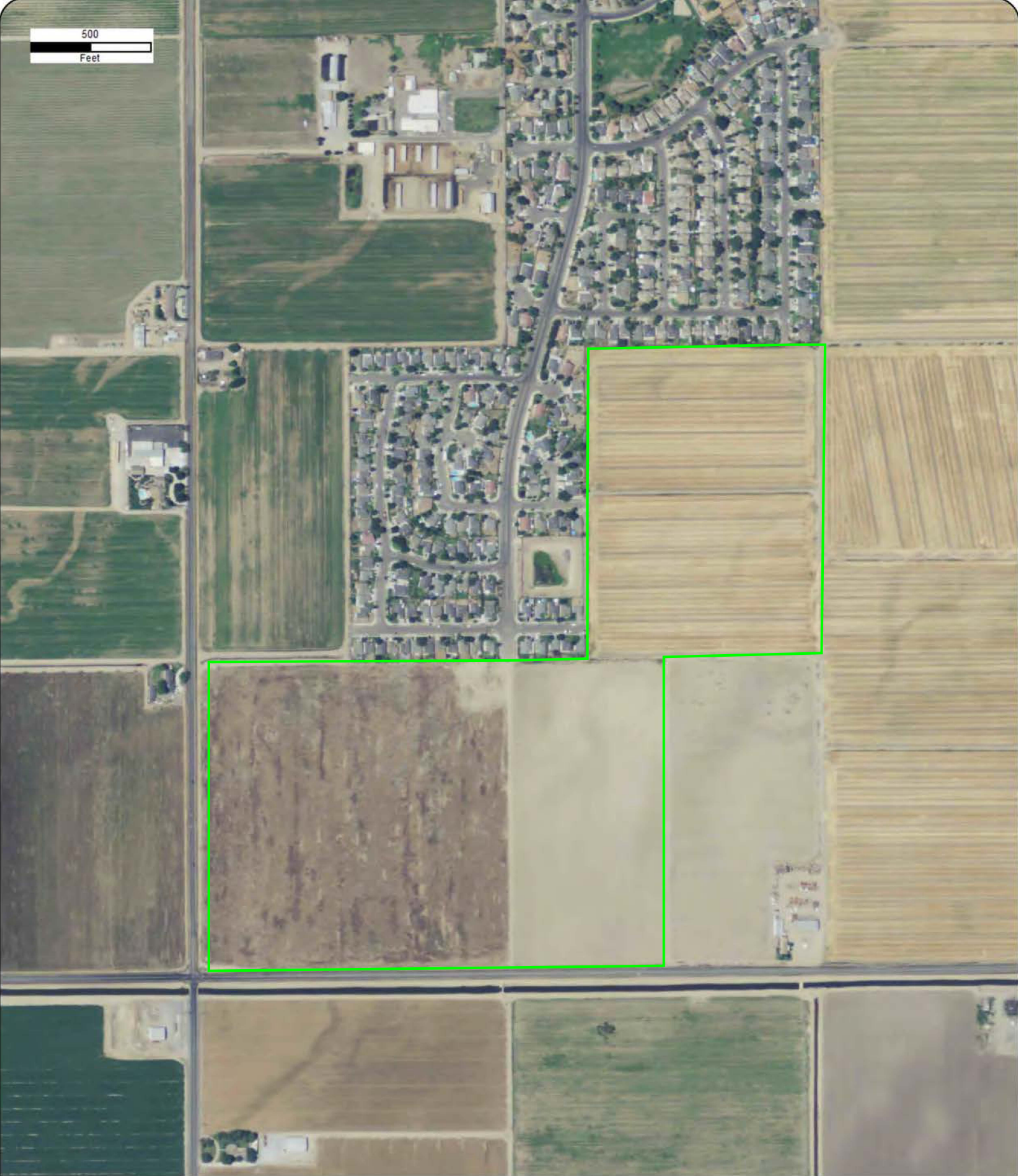
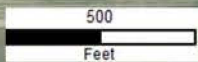


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Scale: 1" = 500'
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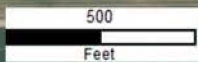


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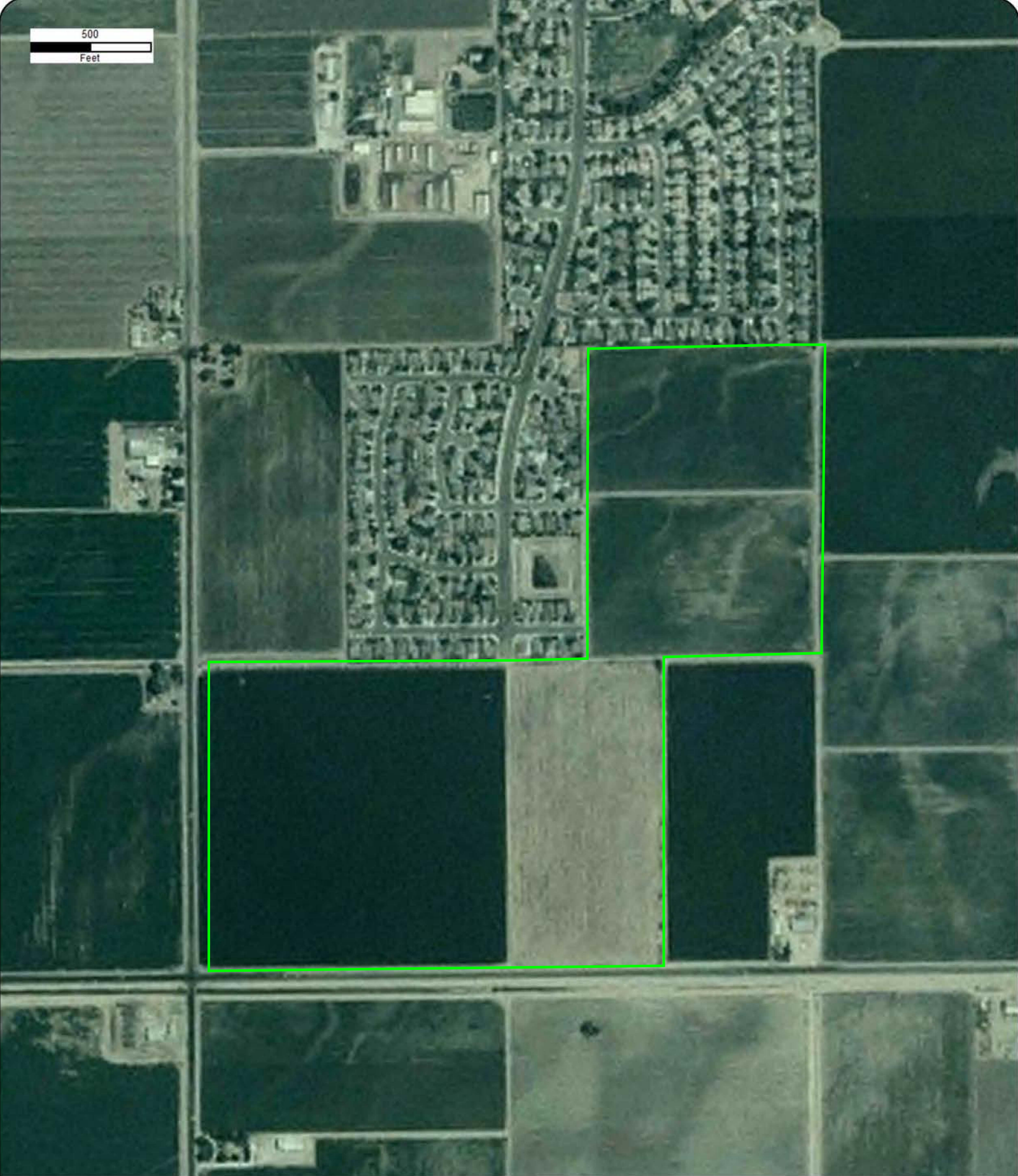


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Order No: 24052300815





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Order No: 24052300815





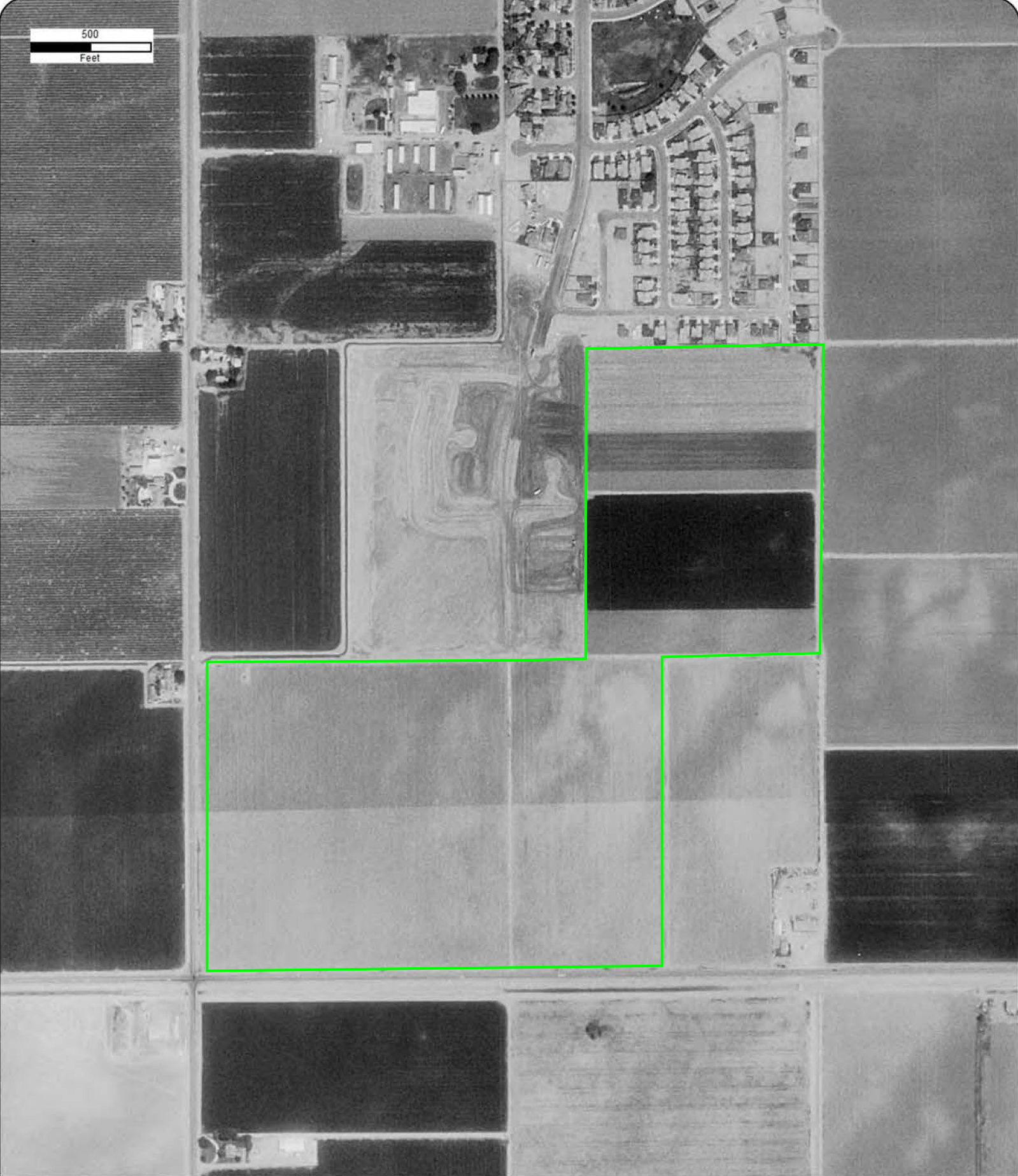
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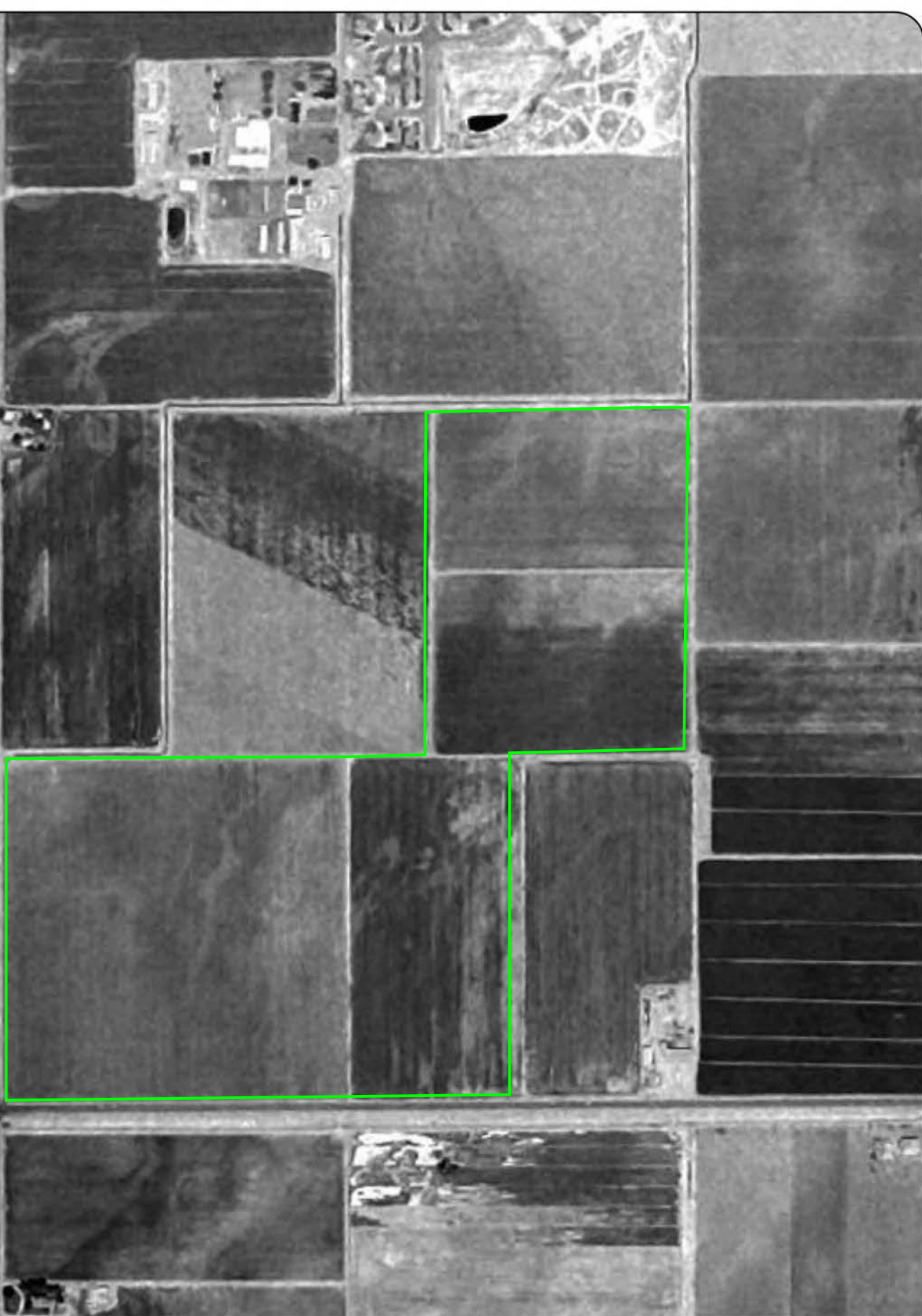


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Scale: 1" = 500'
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Year: 1984
Source: USGS
Scale: 1" = 500'
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Year: 1974
Source: NASA
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Year: 1969
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Order No: 24052300815



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Scale: 1" = 500'
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Source: ASCS
Scale: 1" = 500'
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Year: 1946
Source: FAIRCHILD
Scale: 1" = 500'
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500
Feet



Year: 1937
Source: ASCS
Scale: 1" = 500'
Comment:

Address: NEC S Pratt & W Paige, Tulare, CA
Approx Center: -119.35304923,36.18509207

Order No: 24052300815



APPENDIX C

REGULATORY RECORDS DOCUMENTATION

EXHIBIT C-1

MAPPED DATABASE REPORT



DATABASE REPORT

Project Property:	<i>Blue Fern NEC S Pratt & W Paige Tulare CA 93274</i>
Project No:	<i>24-58</i>
Report Type:	<i>Database Report</i>
Order No:	<i>24052300815</i>
Requested by:	<i>Paul Humphrey, REPA</i>
Date Completed:	<i>May 28, 2024</i>

Environmental Risk Information Services

A division of Glacier Media Inc.

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Executive Summary

Property Information:

Project Property: *Blue Fern
NEC S Pratt & W Paige Tulare CA 93274*

Project No: *24-58*

Coordinates:

Latitude: *36.18509207*
Longitude: *-119.35304923*
UTM Northing: *4,007,044.27*
UTM Easting: *288,403.77*
UTM Zone: *11S*

Elevation: *278 FT*

Order Information:

Order No: *24052300815*
Date Requested: *May 23, 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
<u>Standard Environmental Records</u>								
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
ODI	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	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	1	-	1
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	0	0	-	-	0
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	0	0	0	0
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	0	1	-	1
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	0	-	-	0
UST CLOSURE	Y	0.5	0	0	0	0	-	0
HHSS	Y	0.25	0	1	0	-	-	1
UST SWEEPS	Y	0.25	0	0	0	-	-	0
AST	Y	0.25	0	0	0	-	-	0
AST SWRCB	Y	0.25	0	0	0	-	-	0
TANK OIL GAS	Y	0.25	0	0	0	-	-	0
DELISTED TNK	Y	0.25	0	0	0	-	-	0
CERS TANK	Y	0.25	0	0	0	-	-	0
DELISTED CTNK	Y	0.25	0	1	0	-	-	1
HIST TANK	Y	0.25	0	1	0	-	-	1

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	0	0	0	-	0
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	2	0	-	-	2
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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	-	-	-	-	0
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	0	0	1	-	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	14	-	14
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	1	-	1
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	1	1	2
SCH	Y	1	0	0	0	0	0	0
CHMIRS	Y	PO	0	1	-	-	-	1
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	1	-	1
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	0	0	0	-	0
CERS HAZ	Y	0.125	0	1	-	-	-	1
DELISTED HAZ	Y	0.5	0	0	0	1	-	1
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	0	0	-	-	0
CDL	Y	0.125	0	0	-	-	-	0

Tribal

No Tribal additional environmental record sources available for this State.

County

Total:	0	7	0	22	1	30
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* PO – Property Only

* 'Property and adjoining properties' database search radii are set at 0.25 miles.

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
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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	CHMIRS	CHP	Paige Ave at Pratt St. Tulare CA	WSW	0.01 / 40.76	-1	23
Control No | Notified Date: 10/22/200404:06:03 PM							
2	CUPA TULARE	JOHN DOMINGOS HAY HARVESTING INC	122 W PAIGE AVE TULARE CA 93274	ESE	0.06 / 300.23	-1	23
2	DELISTED CTNK	JOHN DOMINGOS HAY HARVESTING INC	122 W PAIGE AVE TULARE CA 93274	ESE	0.06 / 300.23	-1	24
3	CUPA TULARE	CITY OF TULARE WATER WELL #40	2200 S E ST TULARE CA 93274	N	0.12 / 645.95	5	24
3	CERS HAZ	CITY OF TULARE WATER WELL #40	2200 S E ST TULARE CA 93274	N	0.12 / 645.95	5	24
4	HHSS	LAWRENCE AND SHIRLEY COELHO	1975 SO PRATT TULARE CA 93274	WNW	0.12 / 648.26	1	26
4	HIST TANK	LAWRENCE & SHIRLEY COELHO	1975 SO PRATT TULARE CA	WNW	0.12 / 648.26	1	26
5	DELISTED HAZ	Frank's Automotive Inc.	1520 SOUTH J STREET TULARE CA 93274	NE	0.33 / 1,735.33	5	26
6	LUST	TURNUPSEED ELECTRIC	1580 K ST S TULARE CA 93274	ENE	0.39 / 2,051.50	4	26
Global ID | Status: T0610700056 |							
7	HAZ TSD	THE DIESEL DOCTOR INC.	3348 S PRATT TULARE CA 93274	SSW	0.40 / 2,104.18	-8	29
8	RECYCLING	Bc Recycling Inc	1357 S K St Tulare CA 93274	NE	0.44 / 2,331.98	6	29
9	INSP COMP ENF	SA RECYLING (TULARE)	2525 S K ST TULARE CA 93274	ESE	0.48 / 2,510.16	0	29

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
<u>10</u>	PFAS IND	H B FULLER CO MONARCH DIV	TULARE CA	ENE	0.49 / 2,592.79	4	<u>29</u>
<u>11</u>	RCRA TSD	CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC	1875 S WEST ST TULARE CA 93274	W	0.49 / 2,599.00	-1	<u>30</u>
EPA Handler ID: CAL000445676							
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>32</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>59</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>72</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>85</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>98</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>112</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>125</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>138</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>164</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>178</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>191</u>

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>204</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>217</u>
<u>11</u>	PFAS SAMPLING	City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	-1	<u>230</u>
<u>11</u>	PFAS INVEST	Tulare WWTF	1875 South West Street Tulare CA 93274	W	0.49 / 2,599.00	-1	<u>244</u>
<u>12</u>	INSP COMP ENF	ALL AMERICAN RECYCLERS LLC	3531 S K ST UNIT B TULARE CA 93274	SE	0.85 / 4,507.71	-2	<u>244</u>

Executive Summary: Summary by Data Source

Standard

Federal

RCRA TSD - RCRA non-CORRACTS TSD Facilities

A search of the RCRA TSD database, dated Apr 8, 2024 has found that there are 1 RCRA TSD site(s) within approximately 0.50miles of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC	1875 S WEST ST TULARE CA 93274	W	0.49 / 2,599.00	11
<i>EPA Handler ID: CAL000445676</i>				

State

RECYCLING - Recycling Centers

A search of the RECYCLING database, dated Apr 8, 2024 has found that there are 1 RECYCLING site(s) within approximately 0.50 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
Bc Recycling Inc	1357 S K St Tulare CA 93274	NE	0.44 / 2,331.98	8

LUST - Leaking Underground Fuel Tank Reports

A search of the LUST database, dated Mar 15, 2024 has found that there are 1 LUST site(s) within approximately 0.50miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
TURNUPSEED ELECTRIC	1580 K ST S TULARE CA 93274	ENE	0.39 / 2,051.50	6
<i>Global ID | Status: T0610700056 |</i>				

HHSS - Historical Hazardous Substance Storage Information Database

A search of the HHSS database, dated Aug 27, 2015 has found that there are 1 HHSS site(s) within approximately 0.25miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
LAWRENCE AND SHIRLEY COELHO	1975 SO PRATT TULARE CA 93274	WNW	0.12 / 648.26	4

DELISTED CTNK - Delisted California Environmental Reporting System (CERS) Tanks

A search of the DELISTED CTNK database, dated Jan 17, 2024 has found that there are 1 DELISTED CTNK site(s) within approximately 0.25miles of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
JOHN DOMINGOS HAY HARVESTING INC	122 W PAIGE AVE TULARE CA 93274	ESE	0.06 / 300.23	2

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 1 HIST TANK site(s) within approximately 0.25 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
LAWRENCE & SHIRLEY COELHO	1975 SO PRATT TULARE CA	WNW	0.12 / 648.26	4

County

CUPA TULARE - Tulare County - CUPA List

A search of the CUPA TULARE database, dated May 13, 2023 has found that there are 2 CUPA TULARE site(s) within approximately 0.25miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
CITY OF TULARE WATER WELL #40	2200 S E ST TULARE CA 93274	N	0.12 / 645.95	3

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
JOHN DOMINGOS HAY HARVESTING INC	122 W PAIGE AVE TULARE CA 93274	ESE	0.06 / 300.23	2

Non Standard

Federal

PFAS IND - PFAS Industry Sectors

A search of the PFAS IND database, dated Apr 15, 2024 has found that there are 1 PFAS IND site(s) within approximately 0.50miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
H B FULLER CO MONARCH DIV	TULARE CA	ENE	0.49 / 2,592.79	10

State

PFAS INVEST - PFAS Investigations

A search of the PFAS INVEST database, dated Jan 23, 2024 has found that there are 1 PFAS INVEST site(s) within approximately 0.50miles of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
Tulare WWTF	1875 South West Street Tulare CA 93274	W	0.49 / 2,599.00	11

INSP COMP ENF - EnviroStor Inspection, Compliance, and Enforcement

A search of the INSP COMP ENF database, dated Nov 23, 2023 has found that there are 2 INSP COMP ENF site(s) within approximately 1.00miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
SA RECYLING (TULARE)	2525 S K ST TULARE CA 93274	ESE	0.48 / 2,510.16	9

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
ALL AMERICAN RECYCLERS LLC	3531 S K ST UNIT B TULARE CA 93274	SE	0.85 / 4,507.71	12

CHMIRS - California Hazardous Material Incident Report System (CHMIRS)

A search of the CHMIRS database, dated Oct 16, 2023 has found that there are 1 CHMIRS site(s) within approximately 0.02miles of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
CHP	Paige Ave at Pratt St. Tulare CA	WSW	0.01 / 40.76	1

Control No | Notified Date: 10/22/200404:06:03 PM

HAZ TSD - TSDf from Hazardous Waste Manifest Data

A search of the HAZ TSD database, dated Dec 31, 2017 has found that there are 1 HAZ TSD site(s) within approximately 0.50miles of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
THE DIESEL DOCTOR INC.	3348 S PRATT TULARE CA 93274	SSW	0.40 / 2,104.18	7

CERS HAZ - California Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the CERS HAZ database, dated Jan 17, 2024 has found that there are 1 CERS HAZ site(s) within approximately 0.12miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
CITY OF TULARE WATER WELL #40	2200 S E ST TULARE CA 93274	N	0.12 / 645.95	3

DELISTED HAZ - Delisted Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the DELISTED HAZ database, dated Nov 29, 2018 has found that there are 1 DELISTED HAZ site(s) within approximately 0.50miles of the project property.

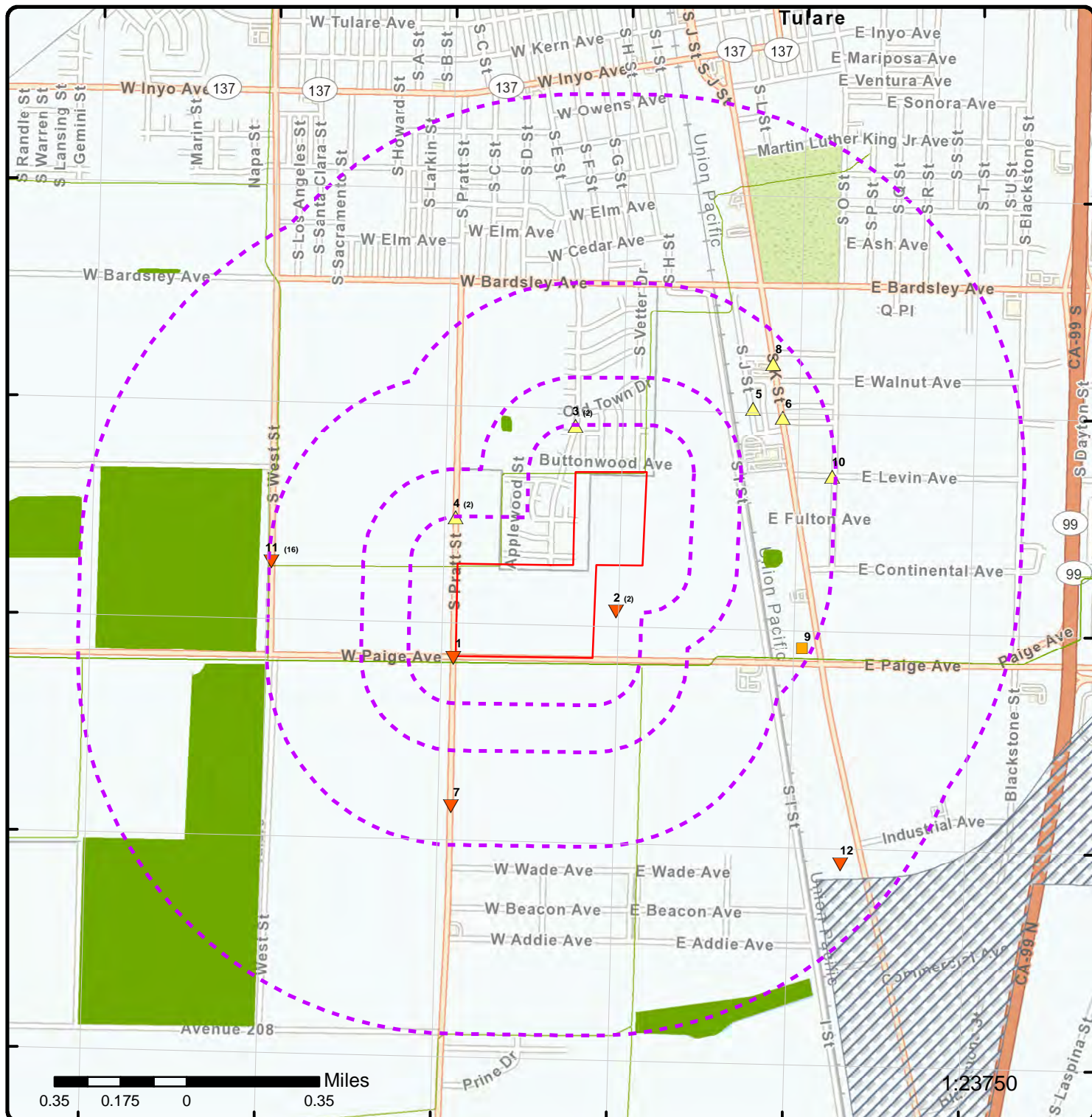
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
Frank's Automotive Inc.	1520 SOUTH J STREET TULARE CA 93274	NE	0.33 / 1,735.33	5

PFAS SAMPLING - PFAS Sampling Locations

A search of the PFAS SAMPLING database, dated Jan 2, 2024 has found that there are 14 PFAS SAMPLING site(s) within approximately 0.50miles of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	11

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	<u>11</u>
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	<u>11</u>
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	<u>11</u>
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	<u>11</u>
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	<u>11</u>
City of Tulare Wastewater Treatment Facility	1875 South West Street Tulare CA	W	0.49 / 2,599.00	<u>11</u>



Map: 1.0 Mile Radius

Order Number: 24052300815

Address: NEC S Pratt & W Paige, 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)



Map: 0.5 Mile Radius

Order Number: 24052300815

Address: NEC S Pratt & W Paige, 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)

119°21'30"W

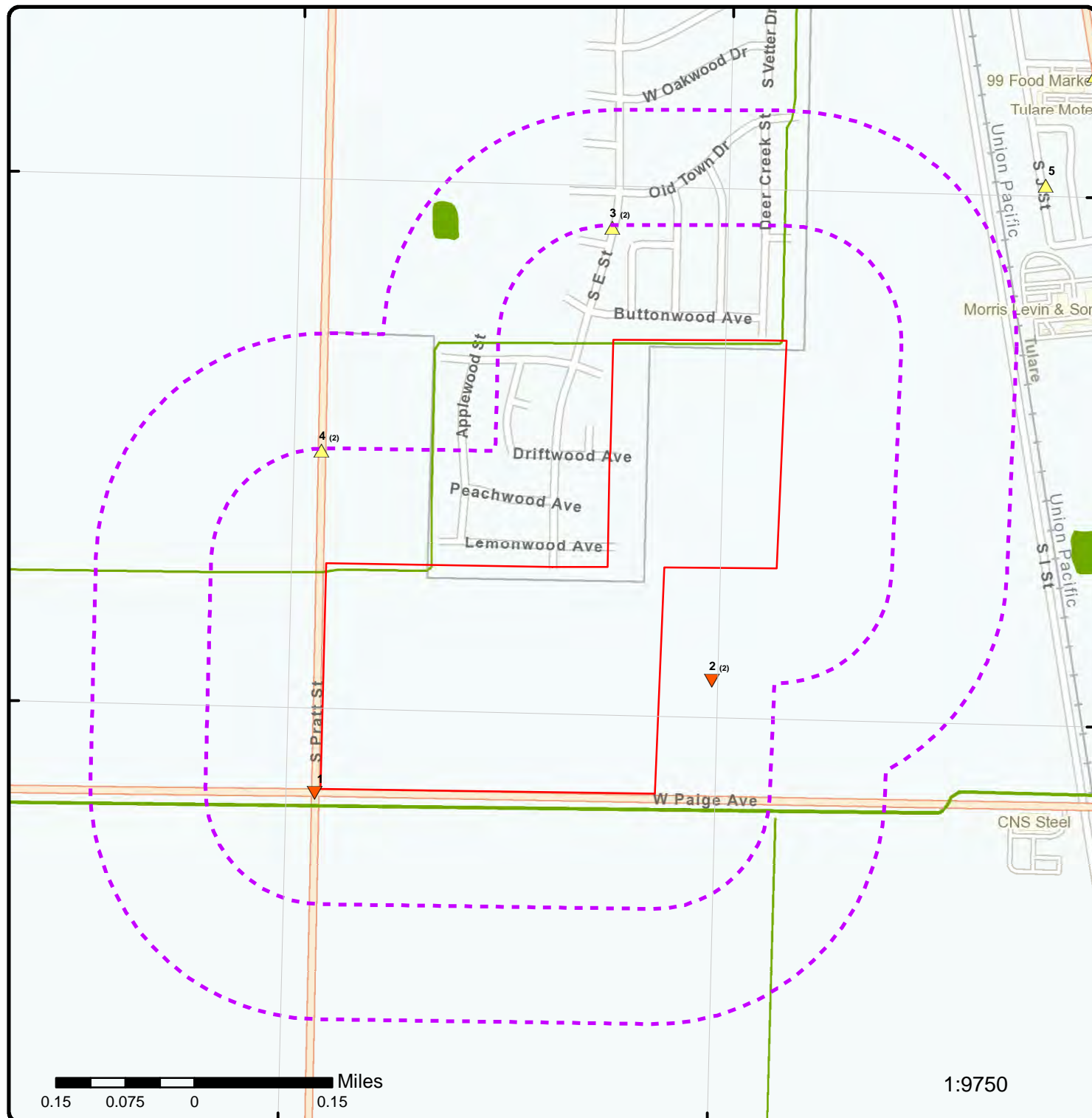
119°21'W

36°11'30"N

36°11'N

36°11'30"N

36°11'N



Map: 0.25 Mile Radius

Order Number: 24052300815

Address: NEC S Pratt & W Paige, 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)

119°21'30"W

119°21'W

36°11'30"N

36°11'N

36°10'30"N

36°11'30"N

36°11'N



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Aerial Year: 2023

Address: NEC S Pratt & W Paige, Tulare, CA

Source: ESRI World Imagery

Order Number: 24052300815



© ERIS Information Inc.

119°22'30"W

119°22'W

119°21'30"W

119°21'W

119°20'30"W

119°20'W

36°12'30"N

36°12'N

36°11'30"N

36°11'N

36°10'30"N

36°10'N

36°12'30"N

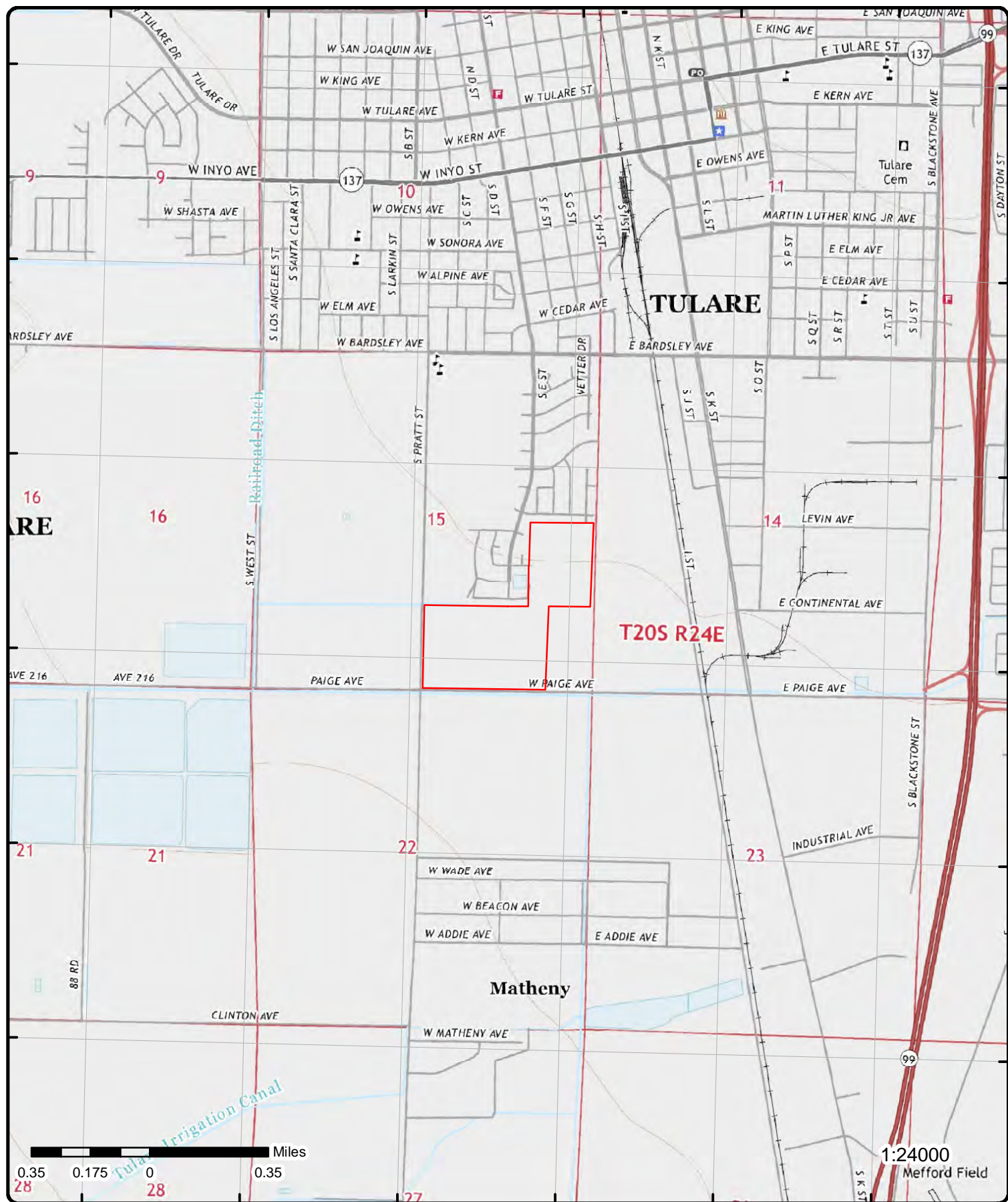
36°12'N

36°11'30"N

36°11'N

36°10'30"N

36°10'N



Topographic Map

Year: 2021

Order Number: 24052300815

Address: NEC S Pratt & W Paige, CA

Quadrangle(s): Paige CA, Tulare CA

Source: USGS Topographic Map



© ERIS Information Inc.

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 1	WSW	0.01 / 40.76	276.41 / -1	CHP Paige Ave at Pratt St. Tulare CA	CHMIRS

Control No:
County: Tulare County
Year: 2004
URL:

Notified Date: 10/22/2004 04:06:03 PM
Notified Date Time:

California Hazardous Material Incident Report System (as of 1997 to 2005)

Contained:	Yes	Bbls:	0
Substance:	Diesel	Cups:	0
Incident Date:	10/22/2004 12:00:00 AM	Cu Ft:	0
No of Injuries:	0	Gals:	150
No of Fatal:	0	Grams:	0
No of Evacs:	0	Lbs:	0
Cleanup:	Unknown	Liters:	0
Water:		Oz:	0
Water Way:		Pts:	0
City:	Tulare	Qts:	0
County:	Tulare County	Sheen:	0
ZIP:		Tons:	0
Site:	Road	Unknown:	0
Admin Agency:	Tulare County Health Department		
Location:	Paige Ave at Pratt St.		
Description:	A truck was involved in traffic accident and spilled diesel from fuel tank.		

2	1 of 2	ESE	0.06 / 300.23	276.90 / -1	JOHN DOMINGOS HAY HARVESTING INC 122 W PAIGE AVE TULARE CA 93274	CUPA TULARE
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Facility ID:	FA1348962	GIS Latitude:	36.182317695
CERS ID:	10603828	GIS Longitude:	-119.349273505
Phone:	5599018306	APN:	174-030-008
Second Phone:	5596869602		

Details

Gen Prog Record ID:	PR1351932	Comment:	TULARE CITY
Haz Emerg Record ID:	EM0001435	Current Status:	Inactive, non-billable
PE:	2224	Billing Status:	Inactive, non-billable
Description:	Haz Mat 6 - 15 Reportable Quantities of Chem		

Gen Prog Record ID:	PR1351996	Comment:	TULARE CITY
Haz Emerg Record ID:	EM0001435	Current Status:	Inactive, non-billable
PE:	2312	Billing Status:	Inactive, non-billable
Description:	EXEMPT TANK FA - STORAGE<20,000		

Gen Prog Record ID:	PR1351934	Comment:	TULARE CITY
Haz Emerg Record ID:	EM0001435	Current Status:	Inactive, non-billable
PE:	2277	Billing Status:	Inactive, non-billable
Description:	CUPA OVERSIGHT CA SURCHARGE		

Gen Prog Record ID:	PR1351933	Comment:	TULARE CITY
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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Haz Emerg Record ID: EM0001435 PE: 2254 Description: HW - SMALL GENERATOR Current Status: Inactive, non-billable Billing Status: Inactive, non-billable						
<u>2</u>	2 of 2	ESE	0.06 / 300.23	276.90 / -1	JOHN DOMINGOS HAY HARVESTING INC 122 W PAIGE AVE TULARE CA 93274	DELISTED CTNK
Site ID: 177593 County: Tulare County Tank Type: Original Source: CTNK Record Date: 18-FEB-2020 Latitude: 36.183907 Longitude: -119.350082						
<u>3</u>	1 of 2	N	0.12 / 645.95	282.45 / 5	CITY OF TULARE WATER WELL #40 2200 S E ST TULARE CA 93274	CUPA TULARE
Facility ID: FA1350147 CERS ID: 10606594 Phone: 5596844324 Second Phone: 5596844324 GIS Latitude: 36.185462 GIS Longitude: -119.35345 APN: 174-030-010						
<u>Details</u>						
Gen Prog Record ID: PR1355433 Haz Emerg Record ID: EM0001673 PE: 2223 Description: Haz Mat - < 6 Reportable Quantities of Chem Comment: TULARE CITY Current Status: Active, billable Billing Status: Active, billable						
Gen Prog Record ID: PR1355434 Haz Emerg Record ID: EM0001673 PE: 2277 Description: CUPA OVERSIGHT CA SURCHARGE Comment: TULARE CITY Current Status: Active, billable Billing Status: Active, billable						
<u>3</u>	2 of 2	N	0.12 / 645.95	282.45 / 5	CITY OF TULARE WATER WELL #40 2200 S E ST TULARE CA 93274	CERS HAZ
Site ID: 426502 Latitude: 36.185833 Longitude: -119.353155						
<u>Regulated Programs</u>						
EI ID: 10606594 EI Description: Chemical Storage Facilities						
<u>Evaluations</u>						
Eval Date: 02/23/2017 Violations Found: No 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:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Eval Date:		10/29/2013				
Violations Found:		No				
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:						

Affiliations

Affil Type Desc: Parent Corporation
Entity Name: CITY OF TULARE WATER WELL #40
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 3981 SOUTH K ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone:

Affil Type Desc: Document Preparer
Entity Name: JESUS CORTEZ
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Environmental Contact
Entity Name: TIM DOYLE
Entity Title:
Address: 3981 SOUTH K ST
City: TULARE
State: CA
Country:
Zip Code: 92174
Phone:

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: JESUS CORTEZ
Entity Title: WATER QUALITY SPECIALIST
Address:
City:
State:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Country: Zip Code: Phone: Affil Type Desc: Operator Entity Name: TIM DOYLE Entity Title: Address: City: State: Country: Zip Code: Phone: (559) 684-4324 Affil Type Desc: Legal Owner Entity Name: City of Tulare Entity Title: Address: 411 E KERN AVE City: TULARE State: CA Country: United States Zip Code: 93274 Phone: (559) 685-2300						
4	1 of 2	WNW	0.12 / 648.26	279.01 / 1	LAWRENCE AND SHIRLEY COELHO 1975 SO PRATT TULARE CA 93274	HHSS
County: Tulare Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002b91f.pdf						
4	2 of 2	WNW	0.12 / 648.26	279.01 / 1	LAWRENCE & SHIRLEY COELHO 1975 SO PRATT TULARE CA	HIST TANK
Owner Name: LAWRENCE OR SHIRLEY COELHO Owner Street: 1975 SO. PRATT Owner City: TULARE Owner State: CA Owner Zip: 93274		No of Containers: 1 County: TULARE Facility State: CA Facility Zip: 93274				
5	1 of 1	NE	0.33 / 1,735.33	282.63 / 5	Frank's Automotive Inc. 1520 SOUTH J STREET TULARE CA 93274	DELISTED HAZ
Siteid: 274315 Latitude: 36.192500 Longitude: -119.343770 Original Source: CHAZ Record Date: 22-MAR-2018						
6	1 of 1	ENE	0.39 / 2,051.50	282.33 / 4	TURNUPSEED ELECTRIC 1580 K ST S TULARE CA 93274	LUST
Global ID: T0610700056 Site Facility Type: Status: Status Date (DL): 4/19/1991 Cleanup Status: Case Type (DL): LUST Cleanup Site RWQCB Region (DL): CENTRAL VALLEY RWQCB (REGION 5F)		Census Tract: 6107002901 Census Tract (SRCH): 6107002901 Oil Field (SRCH): Oil Field Oper (SRCH): Latitude: Longitude:				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Site Facility Name:
Business Name (DL): TURNUPSEED ELECTRIC
Address: 1580 K ST S
City: TULARE
State: CA
Zip: 93274
County: TULARE

GeoTracker Sites Data Download - Site Details

CUF Case: NO
Lead Agency: TULARE COUNTY
Case Worker: UNK
Local Agency: TULARE COUNTY
RB Case No: 5T54000055
Local Case No: 409
File Location:
Potential COC: Gasoline
Potential Media of Concern: Soil
Begin Date: 11/12/1986
How Discovered:
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: Severely Disadvantaged Community
CalEnvScreen Score:
Coordinate Source: Google Map Move
Discharge Cause:
Discharge Source:
EPA Region: 9
Leak Reported Dt: 1986-11-12 00:00:00
Military DoD Site: No
No Further Action Dt: 1991-04-19 00:00:00
Qty Rlsd Gallons:
Facility Project Sub Type:
Calenviroscreen 3 Score: 91-95%
Calenviroscreen 4 Score: 95-100% (highest scores)
Site History:

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker - Primary Caseworker
Contact Name: UNK
Organization Name: TULARE COUNTY
Address: 5957 S. MOONEY BLVD
City: VISALIA
Email:
Phone No:

GeoTracker Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 4/19/1991

Status: Open - Site Assessment
Status Date: 5/22/1990

Status: Open - Site Assessment
Status Date: 11/12/1986

Status: Open - Case Begin Date
Status Date: 11/12/1986

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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GeoTracker Search - Regulatory Profile (as of February 15, 2024)

Site Facility Name:	TURNUPSEED ELECTRIC
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	1580 K ST S
City:	TULARE
Zip:	93274
County:	TULARE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0610700056
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 4/19/1991
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0610700056&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 #: 409 CASE MANAGER: UNK CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T54000055
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	Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Water
Desc:	Contact Recreation, Non-Contact Water Recreation
Site History:	

No site history available

GeoTracker Search - Cleanup Status History (as of February 15, 2024)

Status:	Completed - Case Closed
Date :	4/19/1991
Status:	Open - Site Assessment
Date :	5/22/1990
Status:	Open - Site Assessment
Date :	11/12/1986
Status:	Open - Case Begin Date
Date :	11/12/1986

GeoTracker Search - Regulatory Activities (as of February 15, 2024)

Action Type:	Leak Action
Action:	Leak Reported
Action Date:	11/12/1986
Received Issue Date:	
Doc Link:	
Title Description Comments:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	1 of 1	SSW	0.40 / 2,104.18	269.91 / -8	THE DIESEL DOCTOR INC. 3348 S PRATT TULARE CA 93274	HAZ TSD
<div> <div>EPA ID:</div> <div>CAL000277412</div> <div>Facility Street2:</div> <div>Details DTSC HWTS:</div> <div>Handler Profile URL:</div> </div> <div> <div>Facility County:</div> <div>County:</div> <div>The Department of Toxic Substances Control (DTSC) makes available a Waste Code Matrix showing each Waste Code, its description, and annual amounts in its Hazardous Waste Tracking System: https://hwts.dtsc.ca.gov/search https://hwts.dtsc.ca.gov/facility/CAL000277412</div> </div>						
8	1 of 1	NE	0.44 / 2,331.98	283.42 / 6	Bc Recycling Inc 1357 S K St Tulare CA 93274	RECYCLING
<div> <div>Account No:</div> <div>Website:</div> <div>Phone No:</div> <div>Email:</div> <div>Hours of Operation:</div> <div>Organization Name:</div> <div>Mailing Address:</div> <div>Mailing City:</div> <div>Mailing State:</div> <div>Mailing Postal Cd:</div> </div> <div> <div>RC256334.001</div> <div>(559) 735-9200</div> <div>roybcrecycling@yahoo.com</div> <div>Mon - Sat 9:00 am - 5:00 pm, Closed 12:45 pm - 1:15 pm; Sun Closed</div> <div>Bc Recycling Inc</div> <div>1043 E Houston Ave</div> <div>Visalia</div> <div>CA</div> <div>93292-3847</div> </div> <div> <div>Facility County:</div> <div>Operation Begin Dt:</div> <div>Rural:</div> <div>Appointment Only:</div> </div> <div> <div>Tulare</div> <div>4/1/2017</div> <div>No</div> <div>No</div> </div>						
9	1 of 1	ESE	0.48 / 2,510.16	277.97 / 0	SA RECYLING (TULARE) 2525 S K ST TULARE CA 93274	INSP COMP ENF
<div> <div>EPA ID:</div> <div>Geotracker Address:</div> <div>Geotracker City:</div> <div>Report URL:</div> </div> <div> <div>CAR000334896</div> <div></div> <div></div> <div>https://www.envirostor.dtsc.ca.gov/public/eeerp_profile_report?global_id=3004895</div> </div> <div> <div>County:</div> <div>Geotracker Lat:</div> <div>Geotracker Long:</div> </div> <div> <div>TULARE</div> <div></div> <div></div> </div>						
Inspection Information						
<div> <div>Inspection Type:</div> <div>Violations:</div> <div>Inspection Date:</div> <div>Return to Compliance:</div> <div>Report Sent Date:</div> </div> <div> <div>Compliance Evaluation Inspection - Generator</div> <div>Class 2, Minor</div> <div>10/19/2022</div> <div>1/21/2023</div> <div>11/17/2022</div> </div>						
Site Details (Download)						
<div> <div>Envirostor ID:</div> <div>Site Type:</div> </div> <div> <div>3004895</div> <div>INSPECTION</div> </div> <div> <div>Status:</div> </div> <div> <div>No Action</div> </div>						
10	1 of 1	ENE	0.49 / 2,592.79	281.77 / 4	H B FULLER CO MONARCH DIV TULARE CA	PFAS IND
<div> <div>Status:</div> <div>Fac Indian Cntry Flg:</div> <div>Fac Derived Huc:</div> <div>Fac Derived Wbd:</div> <div>Fac Derived Cd113:</div> <div>Fac Derived Cb2010:</div> <div>Fac Informal Count:</div> <div>Last Informal Action:</div> <div>Formal Action Count:</div> <div>Last Formal Action:</div> </div> <div> <div>Active</div> <div>No</div> <div>18030012</div> <div>180300060901</div> <div>22</div> <div>061070029013102</div> <div>0</div> <div>-</div> <div>0</div> <div>-</div> </div> <div> <div>Fac Fips Code:</div> <div>Compliance Status:</div> <div>EPA Programs:</div> <div>Federal Facility:</div> <div>Federal Agency:</div> <div>Fac Snc Flg:</div> <div>AIR Flag:</div> <div>NPDES Flag:</div> <div>SDWIS Flag:</div> <div>RCRAFlag:</div> </div> <div> <div>06107</div> <div>No Violation Identified</div> <div>RCRA</div> <div>No</div> <div>-</div> <div>No</div> <div>No</div> <div>No</div> <div>No</div> <div>Yes</div> </div>						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Fac Total Penalties:	0				TRI Flag:	No
Fac Penalty Count:	-				GHG Flag:	No
Date Last Penalty:	-				TRI IDs:	93275HBFL863LE
Last Penalty Amt:	-				TRI Releases Trnsfrs:	-
Fac Qtrs With Nc:	0				TRI on Site Releases:	-
Programs With Snc:	0				TRI off Site Trnsfrs:	-
Fac Percent Minority:	66.727				TRI Reporter:	-
Fac Pop Den:	1990.25				Fac Imp Water Flg:	-
Count:	1				Fac Major Flag:	-
Fac County:	TULARE				Fac Active Flag:	Yes
State Other :					Fac Inspection Count:	0
Region:	09				Date Last Inspection:	-
Latitude:	36.189311				Days Last Inspection:	-
Longitude:	-119.340004					
Fac Derived Tribes:	Santa Rosa Indian Community of the Santa Rosa Rancheria, California - 23 mile(s)					
AIR IDs:	-					
CAA Permit Types:	-					
CAA NAICS:	-					
CAA SICS:	-					
NPDES IDs:	-					
CWA Permit Types:	-					
CWA NAICS:	-					
CWA SICS:	-					
RCRA IDs:	CAD981411176					
RCRA Permit Types:	SQG					
RCRA NAICS:	325612					
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:-119.340004,%22y%22:36.189311,%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=110009535752					
Industry:	Cleaning Product Mfg					

11	1 of 16	W	0.49 / 2,599.00	277.06 / -1	CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC 1875 S WEST ST TULARE CA 93274	RCRA TSD
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EPA Handler ID:	CAL000445676
Gen Status Universe:	Small Quantity Generator
Contact Name:	NATHANIEL A GROGAN
Contact Address:	3 , GREAT PASTURE RD , , DANBURY , CT, 06810 , US
Contact Phone No and Ext:	203-825-3128
Contact Email:	NGROGAN@FCE.COM
Contact Country:	US
Land Type:	Municipal
County Name:	TULARE
EPA Region:	09
Receive Date:	20220718
Location Latitude:	36.185502
Location Longitude:	-119.366434

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

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Mixed Waste Generator:		No				
Transporter Activity:		No				
Transfer Facility:		No				
Onsite Burner Exemption:		No				
Smelting, Melting and Refining:		No				
Underground Injection Control:		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: 20190501
Handler Name: CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified
Source Type: Implementer
TSD Activity: Y

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20220222
Handler Name: CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified
Source Type: Annual/Biennial Report update with Notification
TSD Activity: N

Waste Code Details

Hazardous Waste Code: 181
Waste Code Description: Other inorganic solid waste

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20220718
Handler Name: CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Notification
TSD Activity: N

Waste Code Details

Hazardous Waste Code: 181
Waste Code Description: Other inorganic solid waste

Hazardous Waste Code: 512
Waste Code Description: Other empty containers 30 gallons or more

Hazardous Waste Code: 513
Waste Code Description: Empty containers less than 30 gallons

Hazardous Waste Code: D007
Waste Code Description: CHROMIUM

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Hazardous Waste Code: D018
Waste Code Description: BENZENE

Owner/Operator Details

Owner/Operator Ind:	Current Owner	Street No:	
Type:	Other	Street 1:	3 GREAT PASTURE RD
Name:	CENTRAL CA FUEL CELL 2 LLC	Street 2:	
Date Became Current:	20220222	City:	DANBURY
Date Ended Current:		State:	CT
Phone:	203-825-6000	Country:	US
Source Type:	Notification	Zip Code:	06810

Owner/Operator Ind:	Current Operator	Street No:	
Type:	Other	Street 1:	3 GREAT PASTURE RD
Name:	MARK BENEDICT	Street 2:	
Date Became Current:	20220222	City:	DANBURY
Date Ended Current:		State:	CT
Phone:	203-830-7429	Country:	US
Source Type:	Annual/Biennial Report update with Notification	Zip Code:	06810

Owner/Operator Ind:	Current Owner	Street No:	
Type:	Other	Street 1:	3 GREAT PASTURE RD
Name:	CENTRAL CA FUEL CELL 2 LLC	Street 2:	
Date Became Current:		City:	DANBURY
Date Ended Current:		State:	CT
Phone:	203-825-6000	Country:	
Source Type:	Implementer	Zip Code:	06810

Owner/Operator Ind:	Current Owner	Street No:	
Type:	Other	Street 1:	3 GREAT PASTURE RD
Name:	CENTRAL CA FUEL CELL 2 LLC	Street 2:	
Date Became Current:	20220222	City:	DANBURY
Date Ended Current:		State:	CT
Phone:	203-825-6000	Country:	US
Source Type:	Annual/Biennial Report update with Notification	Zip Code:	06810

Owner/Operator Ind:	Current Operator	Street No:	
Type:	Other	Street 1:	3 GREAT PASTURE RD
Name:	CENTRAL CA FUEL CELL 2 LLC	Street 2:	
Date Became Current:	20220222	City:	DANBURY
Date Ended Current:		State:	CT
Phone:	203-825-6000	Country:	US
Source Type:	Notification	Zip Code:	06810

Owner/Operator Ind:	Current Operator	Street No:	
Type:	Other	Street 1:	3 GREAT PASTURE RD
Name:	MARK BENEDICT	Street 2:	
Date Became Current:		City:	DANBURY
Date Ended Current:		State:	CT
Phone:	203-830-7429	Country:	
Source Type:	Implementer	Zip Code:	06810

Historical Handler Details

Receive Dt: 20220222
Generator Code Description: Not a Generator, Verified
Handler Name: CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC

Receive Dt: 20190501
Generator Code Description: Not a Generator, Verified
Handler Name: CENTRAL CA FUEL CELL 2 LLC DBA FUELCELL ENERGY INC

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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1875 South West Street
Tulare CA

Global ID:	WDR100037264	Latitude:	36.2294
Location ID:	INFLUENT	Longitude:	-119.366758
Field Pt Class:	IS		
Site Use:	Wastewater Treatment Plants		
Site Type:	WDR Site		
Facility Type:			
Status:	Active - WDR		

PFAS Chemicals

Sample ID:	DW INF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFHXA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	3/17/2021

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	DOM INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	ETFOA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	12/8/2020

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	DW INF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	8.2
Chemical:	PFOA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	12/8/2020

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	DOM INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	5
Chemical:	NETFOA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	12/8/2020

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	23.6
Chemical:	9CIPF3ONS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPES			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	=			Units:	NG/L	
Value :	120			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.2
Chemical:	PFPFA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFHXDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	23.6
Chemical:	9CIPF3ONS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFHXDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	24
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPES				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFFA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DW INF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFOSA		QRAA:	0	
Qualifier:		<		Units:	NG/L	
Value :		37		Date:	3/17/2021	
Lab Notes:		J				
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DW INF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	5.8	
Chemical:		PFPEs		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DW INF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	8	
Chemical:		PFNS		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DW INF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	10.8	
Chemical:		4:2FTS		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM INF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFNA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	3/17/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical: Qualifier: Value : Lab Notes: Regional Board: Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:	PFNDCA ND 0				QRAA: Units: Date:	0 NG/L 3/17/2021
		CENTRAL VALLEY RWQCB (REGION 5F)				
11	3 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID: Location ID: Field Pt Class: Site Use: Site Type: Facility Type: Status:	WDR100037264 DW INF EB IS	Wastewater Treatment Plants WDR Site Active - WDR			Latitude: Longitude:	36.2294 -119.366758
PFAS Chemicals						
Sample ID: Matrix: Chemical: Qualifier: Value : Lab Notes: Regional Board: Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:	DW INF EB Liquid MEFOSE ND 0				Reporting Limit: Detection Limit: QRAA: Units: Date:	80 60 0 NG/L 6/24/2021
		CENTRAL VALLEY RWQCB (REGION 5F)				
Sample ID: Matrix: Chemical: Qualifier: Value : Lab Notes: Regional Board: Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:	DW INF EB Liquid PFBSA ND 0				Reporting Limit: Detection Limit: QRAA: Units: Date:	50 5 0 NG/L 10/13/2021
		CENTRAL VALLEY RWQCB (REGION 5F)				
Sample ID: Matrix: Chemical: Qualifier: Value : Lab Notes: Regional Board: Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:	DW INF EB Liquid 4:2FTS ND 0				Reporting Limit: Detection Limit: QRAA: Units: Date:	80 10.8 0 NG/L 10/13/2021
		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFHXDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8.2
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	7.2
Chemical:	NMEFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<hr/>						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
<hr/>						
Sample ID:	DW INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
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11	4 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID:	WDR100037264				Latitude:	36.2294
Location ID:	DOMESTIC BIOSOL				Longitude:	-119.366758
Field Pt Class:	OWTS					
Site Use:	Wastewater Treatment Plants					
Site Type:	WDR Site					
Facility Type:						
Status:	Active - WDR					
<hr/>						
<u>PFAS Chemicals</u>						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
<hr/>						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	<			Units:	UG/KG	
Value :	5			Date:	10/13/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	4
Chemical:	PFHXDA				QRAA:	0
Qualifier:	=				Units:	UG/KG
Value :	13				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	4
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	NMEFOSAA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	=			Units:	UG/KG	
Value :	12			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM BIOSOLIDS		Reporting Limit:	10	
Matrix:		Solid		Detection Limit:	3	
Chemical:		PFNDCA		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM BIOSOLIDS		Reporting Limit:	20	
Matrix:		Solid		Detection Limit:	8	
Chemical:		ETFOSE		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM BIOSOLIDS		Reporting Limit:	10	
Matrix:		Solid		Detection Limit:	2	
Chemical:		PFTRIDA		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOMESTIC BIOSOLIDS		Reporting Limit:	20	
Matrix:		Solid		Detection Limit:	6	
Chemical:		PFHXSA		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOMESTIC BIOSOLIDS		Reporting Limit:	50	
Matrix:		Solid		Detection Limit:	20	
Chemical:		9CIPF3ONS		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	6/24/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	10	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	10	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFOSA			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFOA			QRAA:	0	
Qualifier:	<			Units:	UG/KG	
Value :	3.7			Date:	6/24/2021	
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	10	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Solid				Detection Limit:	3
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	4
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	3
Chemical:	PFPA				QRAA:	0
Qualifier:	<				Units:	UG/KG
Value :	3.7				Date:	6/24/2021
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFBA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	6
Chemical:	PFHXS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	3
Chemical:	PFPA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFUNDC				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	50
Matrix:	Solid				Detection Limit:	20
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	ETFOSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFOA			QRAA:	0	
Qualifier:	<			Units:	UG/KG	
Value :	4.8			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

11	5 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID:	WDR100037264			Latitude:	36.2294	
Location ID:	INDUSTRIAL BIOS			Longitude:	-119.366758	
Field Pt Class:	OWTS					
Site Use:	Wastewater Treatment Plants					
Site Type:	WDR Site					
Facility Type:						
Status:	Active - WDR					

PFAS Chemicals

Sample ID:	INDUSTRIAL BIOSOLIDS	Reporting Limit:	20
Matrix:	Solid	Detection Limit:	8
Chemical:	MEFOSE	QRAA:	0
Qualifier:	ND	Units:	UG/KG
Value :	0	Date:	6/24/2021
Lab Notes:			
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)		
Treated Drinking Water Dt:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<hr/>						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	10	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFHXDA			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFHXSXA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFFPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	20	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Solid				Detection Limit:	8
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	6
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	4
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS				Reporting Limit:	50
Matrix:	Solid				Detection Limit:	20
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	4
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	3
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	50
Matrix:	Solid				Detection Limit:	20
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	50
Matrix:	Solid				Detection Limit:	10
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	NMEFOSAA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	IND BIOSOLIDS	Reporting Limit:	10
Matrix:	Solid	Detection Limit:	2
Chemical:	PFNA	QRAA:	0
Qualifier:	ND	Units:	UG/KG
Value :	0	Date:	10/13/2021

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	INDUSTRIAL BIOSOLIDS	Reporting Limit:	20
Matrix:	Solid	Detection Limit:	6
Chemical:	PFHPSA	QRAA:	0
Qualifier:	ND	Units:	UG/KG
Value :	0	Date:	6/24/2021

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	INDUSTRIAL BIOSOLIDS	Reporting Limit:	10
Matrix:	Solid	Detection Limit:	2
Chemical:	PFBA	QRAA:	0
Qualifier:	ND	Units:	UG/KG
Value :	0	Date:	6/24/2021

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	INDUSTRIAL BIOSOLIDS	Reporting Limit:	20
Matrix:	Solid	Detection Limit:	8
Chemical:	6:2FTS	QRAA:	0
Qualifier:	ND	Units:	UG/KG
Value :	0	Date:	6/24/2021

Lab Notes:
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

11	6 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
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Global ID:	WDR100037264	Latitude:	36.2294
Location ID:	COMB EFF FB	Longitude:	-119.366758
Field Pt Class:	ES		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Site Use:		Wastewater Treatment Plants				
Site Type:		WDR Site				
Facility Type:						
Status:		Active - WDR				
<u>PFAS Chemicals</u>						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFFA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFHXDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	24
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.2
Chemical:	PFPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Treated Drinking Water Value:

Sample ID:	COMB EFF FB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	9
Chemical:	6:2FTS	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF FB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	5
Chemical:	NETFOSAA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF FB	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	6.4
Chemical:	PFHXDA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF FB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	8
Chemical:	PFNS	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF FB	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFHXSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8.2
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	20.2
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
11	7 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID:	WDR100037264			Latitude:	36.2294	
Location ID:	EFFLUENT			Longitude:	-119.366758	
Field Pt Class:	ES					
Site Use:	Wastewater Treatment Plants					
Site Type:	WDR Site					
Facility Type:						
Status:	Active - WDR					
PFAS Chemicals						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	<			Units:	NG/L	
Value :	6			Date:	3/17/2021	
Lab Notes:	J					
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	80	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	7.2
Chemical:	NMEFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	20.2
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8.2
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.2
Chemical:	PFPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Treated Drinking Water Value:

Sample ID:	COMB. EFF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5.6
Chemical:	PFHPSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	12/8/2020

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB. EFF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	MEFOSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	12/8/2020

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFNDCA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	3/17/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB. EFF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	ETFOSE	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	12/8/2020

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	26
Chemical:	ADONA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	3/17/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	24
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	23.6
Chemical:	9CIPF3ONS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB. EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	12/8/2020	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB. EFF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	8.6	
Chemical:		PFTEDA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFHPA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	5.8	
Chemical:		PFPEs		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFBSA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		NETFOSAA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	3/17/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID: COMB EFF COMP

Matrix: Liquid

Chemical: ETFOSA

Qualifier: ND

Value : 0

Reporting Limit: 80

Detection Limit: 60

QRAA: 0

Units: NG/L

Date: 3/17/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

11	8 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
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Global ID: WDR100037264

Location ID: DOM INF FB

Field Pt Class: IS

Site Use: Wastewater Treatment Plants

Site Type: WDR Site

Facility Type:

Status: Active - WDR

Latitude: 36.2294

Longitude: -119.366758

PFAS Chemicals

Sample ID: DOM INF FB

Matrix: Liquid

Chemical: 9CIPF3ONS

Qualifier: ND

Value : 0

Reporting Limit: 80

Detection Limit: 23.6

QRAA: 0

Units: NG/L

Date: 6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID: DOM INF FB

Matrix: Liquid

Chemical: ETFOSE

Qualifier: ND

Value : 0

Reporting Limit: 80

Detection Limit: 60

QRAA: 0

Units: NG/L

Date: 10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DOM INF FB	Reporting Limit:	50
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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	8.2
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	24
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFFA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
11	9 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID:	WDR100037264			Latitude:	36.2294	
Location ID:	BIOSOLIDS			Longitude:	-119.366758	
Field Pt Class:	OWTS					
Site Use:	Wastewater Treatment Plants					
Site Type:	WDR Site					
Facility Type:						
Status:	Active - WDR					
PFAS Chemicals						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	4
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID				Reporting Limit:	50
Matrix:	Solid				Detection Limit:	10
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	50
Matrix:	Solid				Detection Limit:	20
Chemical:	9CIPF3ONS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFBA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	4
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	3
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	10	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFOS			QRAA:	0	
Qualifier:	<			Units:	UG/KG	
Value :	8.3			Date:	3/17/2021	
Lab Notes:		J				
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFOS			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	<			Units:	UG/KG	
Value :	7.1			Date:	12/8/2020	
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	10	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Solid				Detection Limit:	20
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	3
Chemical:	PFNDCA				QRAA:	0
Qualifier:	<				Units:	UG/KG
Value :	3				Date:	3/17/2021
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	3
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	INDUSTRIAL BIOSOLID				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	4
Chemical:	PFHXDA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	2
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	4
Chemical:	PFPES				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM BIOSOLIDS				Reporting Limit:	10
Matrix:	Solid				Detection Limit:	3
Chemical:	PFPFA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	12/8/2020
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS				Reporting Limit:	20
Matrix:	Solid				Detection Limit:	8
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	UG/KG
Value :	0				Date:	3/17/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFFA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	<			Units:	UG/KG	
Value :	7.3			Date:	3/17/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	4	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	=			Units:	UG/KG	
Value :	33			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	<			Units:	UG/KG	
Value :	8.3			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	10	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		INDUSTRIAL BIOSOLID		Reporting Limit:	20	
Matrix:		Solid		Detection Limit:	8	
Chemical:		ETFOSE		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOMESTIC BIOSOLID		Reporting Limit:	10	
Matrix:		Solid		Detection Limit:	3	
Chemical:		PFNDCA		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		IND. BIOSOLIDS		Reporting Limit:	10	
Matrix:		Solid		Detection Limit:	3	
Chemical:		PFNDCA		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOMESTIC BIOSOLID		Reporting Limit:	10	
Matrix:		Solid		Detection Limit:	2	
Chemical:		PFOSA		QRAA:	0	
Qualifier:		ND		Units:	UG/KG	
Value :		0		Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM BIOSOLIDS		Reporting Limit:	10	
Matrix:		Solid		Detection Limit:	3	
Chemical:		PFOA		QRAA:	0	
Qualifier:		<		Units:	UG/KG	
Value :		6		Date:	3/17/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<hr/>						
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	3	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	INDUSTRIAL BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSA			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	50	
Matrix:	Solid			Detection Limit:	20	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	IND. BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM BIOSOLIDS			Reporting Limit:	10	
Matrix:	Solid			Detection Limit:	2	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	3/17/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOMESTIC BIOSOLID			Reporting Limit:	20	
Matrix:	Solid			Detection Limit:	8	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	UG/KG	
Value :	0			Date:	12/8/2020	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
11	10 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID:	WDR100037264			Latitude:	36.2294	
Location ID:	DOM INF EB			Longitude:	-119.366758	
Field Pt Class:	IS					
Site Use:	Wastewater Treatment Plants					
Site Type:	WDR Site					
Facility Type:						
Status:	Active - WDR					

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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PFAS Chemicals

Sample ID:	DOM INF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	26
Chemical:	ADONA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DOM INF EB	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	6.4
Chemical:	PFHXDA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DOM INF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	8.6
Chemical:	PFTEDA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DOM INF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFBA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DOM INF EB	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5.8
Chemical:	PFTRIDA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	23.6
Chemical:	9CIPF3ONS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	24
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	<			Units:	NG/L	
Value :	10			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPES			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	6.2
Chemical:	PFPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	20.2
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	20.2
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	11 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
<div> <div> Global ID: WDR100037264 Location ID: DOM INF COMP Field Pt Class: CS Site Use: Wastewater Treatment Plants Site Type: WDR Site Facility Type: Status: Active - WDR </div> <div> Latitude: 36.2294 Longitude: -119.366758 </div> </div>						
PFAS Chemicals						
<div> <div> Sample ID: DOM INF COMP Matrix: Liquid Chemical: PFDSA Qualifier: ND Value : 0 Lab Notes: Regional Board: CENTRAL VALLEY RWQCB (REGION 5F) Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value: </div> <div> Reporting Limit: 50 Detection Limit: 6.4 QRAA: 0 Units: NG/L Date: 6/24/2021 </div> </div>						
<div> <div> Sample ID: DOM INF COMP Matrix: Liquid Chemical: 8:2FTS Qualifier: ND Value : 0 Lab Notes: Regional Board: CENTRAL VALLEY RWQCB (REGION 5F) Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value: </div> <div> Reporting Limit: 80 Detection Limit: 20.2 QRAA: 0 Units: NG/L Date: 6/24/2021 </div> </div>						
<div> <div> Sample ID: DOM INF COMP Matrix: Liquid Chemical: MEFOSA Qualifier: ND Value : 0 Lab Notes: Regional Board: CENTRAL VALLEY RWQCB (REGION 5F) Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value: </div> <div> Reporting Limit: 80 Detection Limit: 60 QRAA: 0 Units: NG/L Date: 10/13/2021 </div> </div>						
<div> <div> Sample ID: DOM INF COMP Matrix: Liquid Chemical: PFNDCA Qualifier: ND Value : 0 Lab Notes: Regional Board: CENTRAL VALLEY RWQCB (REGION 5F) Treated Drinking Water Dt: Treated Drinking Water Qualifi: </div> <div> Reporting Limit: 50 Detection Limit: 5 QRAA: 0 Units: NG/L Date: 10/13/2021 </div> </div>						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	7.2
Chemical:	NMEFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8.2
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM INF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	24	
Chemical:		11CIPF3OUDS		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM INF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	8.6	
Chemical:		PFTEDA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM INF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFNDCA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM INF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFOSA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		DOM INF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFOSA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	10/13/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	=			Units:	NG/L	
Value :	120			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	=			Units:	NG/L	
Value :	63			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	<			Units:	NG/L	
Value :	5.4			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DOM INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DOM INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	20.2
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
11	12 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID:	WDR100037264				Latitude:	36.2294
Location ID:	COMB EFF EB				Longitude:	-119.366758
Field Pt Class:	ES					
Site Use:	Wastewater Treatment Plants					
Site Type:	WDR Site					
Facility Type:						
Status:	Active - WDR					
PFAS Chemicals						
Sample ID:	COMB EFF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	20.2
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	7.2
Chemical:	NMEFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	COMB EFF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Treated Drinking Water Value:

Sample ID:	COMB EFF EB	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	8
Chemical:	PFUNDCA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	ETFOSE	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	26
Chemical:	ADONA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	26
Chemical:	ADONA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFBA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF EB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	COMB EFF EB	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFDOA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF EB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	5
Chemical:	NETFOSAA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

<u>11</u>	13 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
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Global ID:	WDR100037264	Latitude:	36.2294
Location ID:	DW INF FB	Longitude:	-119.366758
Field Pt Class:	IS		
Site Use:	Wastewater Treatment Plants		
Site Type:	WDR Site		
Facility Type:			
Status:	Active - WDR		

PFAS Chemicals

Sample ID:	DW INF FB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	MEFOSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DW INF FB	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	ETFOSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFFA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	24
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	23.6
Chemical:	9CIPF3ONS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFHXDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	20.2
Chemical:	8:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	NETFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF FB			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						

11	14 of 16	W	0.49 / 2,599.00	277.06 / -1	City of Tulare Wastewater Treatment Facility 1875 South West Street Tulare CA	PFAS SAMPLING
Global ID:	WDR100037264			Latitude:	36.2294	
Location ID:	DW INF COMP			Longitude:	-119.366758	
Field Pt Class:	IS					
Site Use:	Wastewater Treatment Plants					
Site Type:	WDR Site					
Facility Type:						
Status:	Active - WDR					

PFAS Chemicals

Sample ID:	DW INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	23.6
Chemical:	9CIPF3ONS	QRAA:	0

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFDOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPEs			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	49
Chemical:	HFPO-DA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	26
Chemical:	ADONA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFTRIDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.6
Chemical:	PFHPSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	24
Chemical:	11CIPF3OUDS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Treated Drinking Water Value:

Sample ID:	DW INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	ETFOSE	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DW INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	20.2
Chemical:	8:2FTS	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DW INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	7.2
Chemical:	NMEFOSAA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DW INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	9
Chemical:	6:2FTS	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	DW INF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	60
Chemical:	ETFOSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFDSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5.8
Chemical:	PFPEs				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFUNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.2
Chemical:	PFPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHXSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	23.6
Chemical:	9CIPF3ONS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8.6
Chemical:	PFTEDA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	10.8
Chemical:	4:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSE				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	9	
Chemical:	6:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	DW INF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFBA			QRAA:	0	
Qualifier:	<			Units:	NG/L	
Value :	33			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Tulare CA

Global ID:	WDR100037264	Latitude:	36.2294
Location ID:	COMB EFF COMP	Longitude:	-119.366758
Field Pt Class:	CS		
Site Use:	Wastewater Treatment Plants		
Site Type:	WDR Site		
Facility Type:			
Status:	Active - WDR		

PFAS Chemicals

Sample ID:	COMB EFF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFOSA	QRAA:	0
Qualifier:	<	Units:	NG/L
Value :	9	Date:	6/24/2021
Lab Notes:	J		

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFBSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021
Lab Notes:			

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFHXSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021
Lab Notes:			

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5.6
Chemical:	PFHPSA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021
Lab Notes:			

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFBA				QRAA:	0
Qualifier:	<				Units:	NG/L
Value :	6.8				Date:	6/24/2021
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	8.2
Chemical:	PFOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFOS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	6.2
Chemical:	PFPA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	9
Chemical:	6:2FTS	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	50
Matrix:	Liquid	Detection Limit:	5
Chemical:	PFDOA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	5
Chemical:	NETFOSAA	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	10/13/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Treated Drinking Water Units:

Treated Drinking Water Value:

Sample ID:	COMB EFF COMP	Reporting Limit:	80
Matrix:	Liquid	Detection Limit:	23.6
Chemical:	9CIPF3ONS	QRAA:	0
Qualifier:	ND	Units:	NG/L
Value :	0	Date:	6/24/2021

Lab Notes:

Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)

Treated Drinking Water Dt:

Treated Drinking Water Qualifi:

Treated Drinking Water Reporti:

Treatd Drinking Water Sample:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	7.2	
Chemical:	NMEFOSAA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.6	
Chemical:	PFHPSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFDOA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFHPA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	9
Chemical:	6:2FTS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	8
Chemical:	PFNS				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	5
Chemical:	NETFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board: CENTRAL VALLEY RWQCB (REGION 5F)						
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	ETFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	5
Chemical:	PFNDCA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	60
Chemical:	MEFOSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	50
Matrix:	Liquid				Detection Limit:	6.4
Chemical:	PFDSA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	6/24/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP				Reporting Limit:	80
Matrix:	Liquid				Detection Limit:	7.2
Chemical:	NMEFOSAA				QRAA:	0
Qualifier:	ND				Units:	NG/L
Value :	0				Date:	10/13/2021
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.2	
Chemical:	PFPA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	<			Units:	NG/L	
Value :	7			Date:	10/13/2021	
Lab Notes:	J					
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:	CENTRAL VALLEY RWQCB (REGION 5F)					
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFHXSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	10.8	
Chemical:		4:2FTS		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	8.6	
Chemical:		PFTEDA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	80	
Matrix:		Liquid		Detection Limit:	5	
Chemical:		PFBA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	5.8	
Chemical:		PFPEs		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:		COMB EFF COMP		Reporting Limit:	50	
Matrix:		Liquid		Detection Limit:	6.4	
Chemical:		PFDSA		QRAA:	0	
Qualifier:		ND		Units:	NG/L	
Value :		0		Date:	10/13/2021	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	20.2	
Chemical:	8:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	49	
Chemical:	HFPO-DA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFPES			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	24	
Chemical:	11CIPF3OUDS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	6.4	
Chemical:	PFHXDA			QRAA:	0	
Qualifier:	<			Units:	NG/L	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Value :	6.8			Date:	6/24/2021	
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFNS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFOSA			QRAA:	0	
Qualifier:	<			Units:	NG/L	
Value :	25			Date:	10/13/2021	
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8.2	
Chemical:	PFOA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5.8	
Chemical:	PFTRIDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	23.6	
Chemical:	9CIPF3ONS			QRAA:	0	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	8.6	
Chemical:	PFTEDA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	10.8	
Chemical:	4:2FTS			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	26	
Chemical:	ADONA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Chemical:	PFBSA			QRAA:	0	
Qualifier:	<			Units:	NG/L	
Value :	7.5			Date:	10/13/2021	
Lab Notes:	J					
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	ETFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	8	
Chemical:	PFUNDCA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	10/13/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	80	
Matrix:	Liquid			Detection Limit:	60	
Chemical:	MEFOSE			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	
Matrix:	Liquid			Detection Limit:	5	
Chemical:	PFNA			QRAA:	0	
Qualifier:	ND			Units:	NG/L	
Value :	0			Date:	6/24/2021	
Lab Notes:						
Regional Board:		CENTRAL VALLEY RWQCB (REGION 5F)				
Treated Drinking Water Dt:						
Treated Drinking Water Qualifi:						
Treated Drinking Water Reporti:						
Treatd Drinking Water Sample:						
Treated Drinking Water Units:						
Treated Drinking Water Value:						
Sample ID:	COMB EFF COMP			Reporting Limit:	50	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Matrix: Liquid Chemical: PFUNDCA Qualifier: ND Value : 0 Lab Notes: Regional Board: CENTRAL VALLEY RWQCB (REGION 5F) Treated Drinking Water Dt: Treated Drinking Water Qualifi: Treated Drinking Water Reporti: Treatd Drinking Water Sample: Treated Drinking Water Units: Treated Drinking Water Value:						
Detection Limit: 8 QRAA: 0 Units: NG/L Date: 6/24/2021						
11	16 of 16	W	0.49 / 2,599.00	277.06 / -1	Tulare WWTF 1875 South West Street Tulare CA 93274	PFAS INVEST
Geotracker Global ID: WDR100037264 County: Tulare Data Source: POTWF Latitude: 36.181013 Longitude: -119.374489						
Publicly Owned Treatment Works Facilities						
Facility I: 273137 WDID: 5D540110001 Reg Measur: WDR Regional W: Region (5F) Central Valley (Fresno) Regional B: https://www.waterboards.ca.gov/pfas/regional_board_contacts.html Geotrack 1: https://geotracker.waterboards.ca.gov/profile_report?global_id=WDR100037264						
12	1 of 1	SE	0.85 / 4,507.71	276.29 / -2	ALL AMERICAN RECYCLERS LLC 3531 S K ST UNIT B TULARE CA 93274	INSP COMP ENF
EPA ID: CAL000474724 Geotracker Address: Geotracker City: Report URL: https://www.envirostor.dtsc.ca.gov/public/eeerp_profile_report?global_id=3004894 County: TULARE Geotracker Lat: Geotracker Long:						
Inspection Information						
Inspection Type: Compliance Evaluation Inspection - Generator Violations: Class 1, Class 2, Minor Inspection Date: 1/18/2023 Return to Compliance: 6/19/2023 Report Sent Date: 2/17/2023						
Site Details (Download)						
Envirostor ID: 3004894 Site Type: INSPECTION Status: No Action						

Unplottable Summary

Total: 0 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
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No unplottable records were found that may be relevant for the search criteria.

Unplottable Report

No unplottable records were found that may be relevant for the search criteria.

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: Mar 27, 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

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: Mar 27, 2024

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 available 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: Feb 29, 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: Feb 29, 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: Feb 20, 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: Sep 22, 2023

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: Mar 27, 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: Feb 15, 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: Feb 15, 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: Feb 15, 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: Feb 15, 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: Apr 8, 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: Apr 29, 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: Apr 17, 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: Mar 15, 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: Mar 15, 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: Apr 4, 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: Feb 15, 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: Apr 4, 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: May 9, 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: Jan 17, 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: Jan 17, 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 the 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: Feb 15, 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: Mar 15, 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: Feb 15, 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: Mar 15, 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: Mar 15, 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: May 16, 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: Oct 25, 2023

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: Oct 25, 2023

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: Oct 25, 2023

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: Oct 25, 2023

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.

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: Feb 9, 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: Mar 19, 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 March 2022 to September 2023. 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: Sep 5, 2023

SSEHRI PFAS Contamination Sites:

PFAS SSEHRI

This PFAS Contamination Site Tracker database is compiled by 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, and this is cited in the tracker. Locations for the Known PFAS Contamination Sites are sourced from the PFAS Sites and Community Resources Map, credited to the Northeastern University's PFAS Project Lab, Silent Spring Institute, and the PFAS-REACH team. 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: May 19, 2023

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: Apr 15, 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: Nov 26, 2023

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).

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: Aug 26, 2023

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: Jan 20, 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: Jan 20, 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: Nov 6, 2023

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

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide 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) impacts, 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 eAMLIS (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: Jun 13, 2023

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, Title 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: Sep 15, 2023

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: Oct 30, 2023

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: Jan 2, 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: Mar 15, 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: Jan 7, 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 no 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: Feb 15, 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: Oct 16, 2023

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: Apr 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: Mar 25, 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: Jan 17, 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: Mar 15, 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: Mar 15, 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

S1/2, SEC.15, T.20S., R.24E., M.D.B.&M.

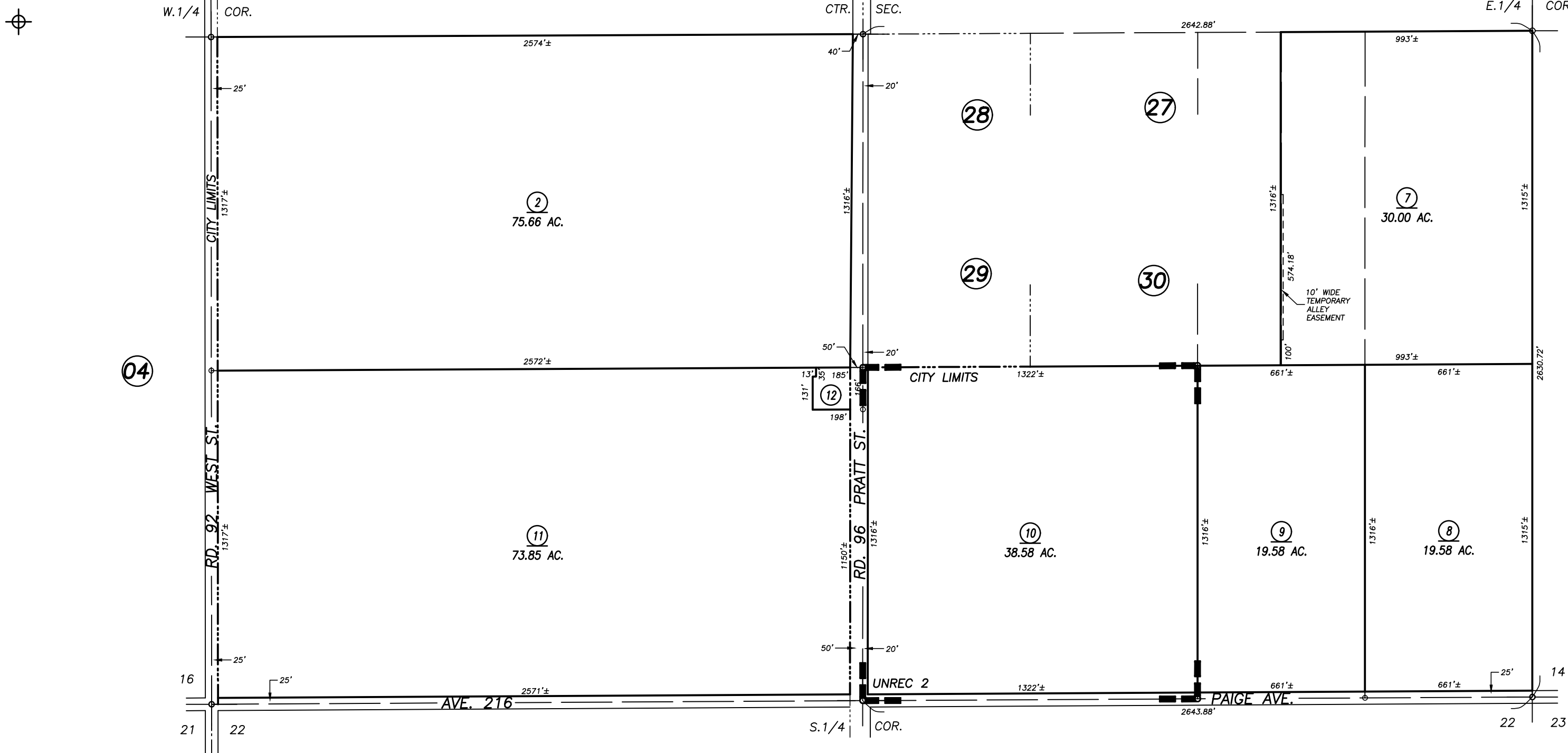
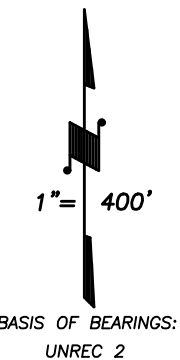
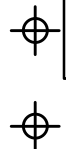
Tax Area Codes 174-03

005-089

005-104

149-003

DISCLAIMER
THIS MAP WAS PREPARED FOR LOCAL
PROPERTY ASSESSMENT PURPOSES ONLY
AND THE PARCELS SHOWN HEREON MAY
NOT COMPLY WITH STATE AND LOCAL
SUBDIVISION ORDINANCES, AND NO
LIABILITY IS ASSUMED FOR THE USE
OF THE INFORMATION SHOWN HEREON.
R & T CODE SEC. 327, 408.3, ETC.



POR. TULARE IRRIGATION DISTRICT, UNREC 1 (SEC.15, ETC.)
POR. 199 DEVELOPMENT PARTNERS SURVEY, UNREC 2

VICINITY OF TULARE
ASSESSOR'S MAPS BK. 174 , PG.03
COUNTY OF TULARE, CALIFORNIA, U.S.A.

APPENDIX D

INTERVIEW RECORDS

RECORD OF COMMUNICATION						
Project Name: Proposed Development			Location (city): Tulare, California			
Communication with: Jimi Valof						
Of: Owner of Subject Property parcel 174-030-007						
Location: Tulare, CA			Phone: 559 737-1830			
Communication via	X	Telephone		Letter		In Person
Recorded By: Paul Humphrey			Of: Paul Humphrey, EP			
At: (time): 0830			On (date): May 22, 2024			
Re: Property Use						
<p>Summary of Communication:</p> <p>Mr. Valof 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.</p>						
Conclusions/Required Action/Follow-up: None						

RECORD OF COMMUNICATION						
Project Name: Proposed Development				Location (city): Tulare, California		
Communication with: Jacob DeGroot						
Of: Owner of Subject Property parcels 174-030-009 and 174-030-010						
Location: Tulare, CA				Phone: 559 288-7890		
Communication via	<input checked="" type="checkbox"/>	Telephone	<input type="checkbox"/>	Letter	<input type="checkbox"/>	In Person
Recorded By: Paul Humphrey				Of: Paul Humphrey, EP		
At: (time): 0845				On (date): May 22, 2024		
Re: Property Use						
<p>Summary of Communication:</p> <p>Mr. DeGroot 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.</p>						
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	<input checked="" type="checkbox"/>	Telephone	<input type="checkbox"/>	Letter	<input type="checkbox"/>	In Person
Recorded By: Paul Humphrey			Of: Paul Humphrey, EP			
At: (time): 1430			On (date): May 22, 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): 1300				On (date): May 22, 2024		
Re: Records						
<p>Summary of Communication:</p> <p>No records of land use limitations associated with the Subject Property.</p>						
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): 1045				On (date): May 22, 2024		
Re: Records						
<p>Summary of Communication:</p> <p>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.</p>						
Conclusions/Required Action/Follow-up: None						

APPENDIX E

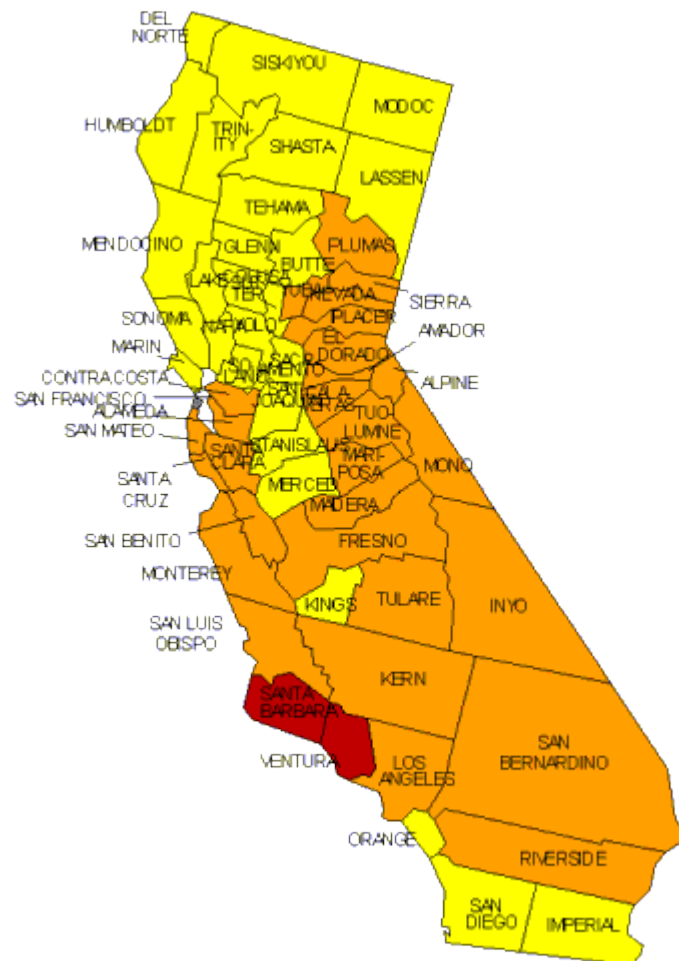
CLIENT PROVIDED DOCUMENTATION

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



GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

October 1, 2024

Project No. 014-24129

Mr. Shane Bouchard
Blue Fern West, LLC
18300 Richmond Way, Suite #120
Richmond, Washington 98052
shane@bluefern.com

RE: Phase II Limited Site Assessment
Lekkerkerker Property
Northeast Corner of S. Platt Street and W. Paige Avenue
Tulare, California 93292

Dear Mr. Bouchard:

Pursuant to your request, Krazan & Associates, Inc. (Krazan) has conducted a Phase II Limited Site Assessment (LSA) at the referenced property (subject site). The scope of work was contained in emails dated August 1 and 24, 2024 from Artemis Partners, LLC, on behalf of Blue Fern West, LLC (client). The work was reportedly conducted in connection with a real estate development project and not at the request of a regulatory agency.

BACKGROUND

In emails dated August 1 and 24, 2024, Artemis Partners, LLC, requested that Krazan prepare a proposal to conduct a Phase II LSA on the 57-acre Lekkerkerker Property (subject site). The LSA work would focus on the presence of organochlorine pesticides (OCPs) and arsenic in soil on the subject site.

PURPOSE

The purpose of the Phase II LSA was to assess the presence/concentrations, if any, of OCPs and arsenic in soil at the subject site.

SCOPE OF WORK

Pre-Field Activities

A site-specific health and safety plan was prepared including an appropriate level of personal protection equipment for Krazan personnel, to cover sampling activities.

Industry standard methods and protocols for sample collection, sampling equipment decontamination, sample storage, transport, hold times, chain-of-custody, etc. were implemented.

Site Safety protocols, including appropriate level of personal protection equipment, were maintained as was a proper exclusion zone around the work area.

Soil samples were collected in 1.5-inch by six (6)-inch stainless steel sleeves and were immediately placed in an iced chest. The soil samples were labeled and identified on a chain of custody. The soil samples were transferred to an analytical laboratory under chain of custody protocol.

Soil samples were analyzed by a State-approved laboratory for the constituents of potential concern (COCs) as specified below. Various COPCs, depending upon the area of concern, in soil investigated during the course of this assessment and their respective analytical methods included the following:

- Organochlorine pesticides (OCPs) by EPA Method 8081A and
- Arsenic by EPA Method 6020B.

Investigation of Agricultural Cultivation Soil Sampling

On September 13, 2024, Krazan conducted fieldwork. Based on the generalized number of sampling locations recommended for a 57-acre site by the Department of Toxic Substances Control (DTSC) in their August 7, 2008, *Interim Guidance for Sampling Agricultural Properties*, a total of 68 discrete soil samples were collected from the subject site.

The discrete soil samples were composited in the laboratory into 17, four (4)-part composite soil samples (CS1 through CS17). Each of the 17 composite soil samples were analyzed for OCPs. Sampling was conducted in beds, furrows and along drip lines and under the canopy, if trees were present.

A total of 17 discrete soil samples (D1 through D17) were collected from the agricultural cultivation areas on the subject site and submitted for laboratory analysis for arsenic.

Two (2) four-part duplicate composite samples (CS5-DUP and CS16-DUP) were collected and analyzed for OCPs, and two (2) discrete duplicate samples (D5-DUP and D16-DUP) were collected and analyzed for arsenic.

APPLICABLE REGULATORY AGENCY REFERENCE

Krazan's evaluation of the results and findings associated with the soil and soil vapor included referencing the California Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office's (HERO) *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels* (DTSC-SLs). The DTSC has developed modified screening levels based on the U.S. Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for use in the human risk assessment process at hazardous waste sites and permitted facilities.

REPORT AND DISCUSSION OF FINDINGS

Former Agricultural Land Use - Shallow Soil Sampling

Analytical results for the 17, four (4)-part composite soil samples (CS1 through CS17) submitted for laboratory analysis for OCPs were reported as not detected (ND) above laboratory reporting limits (RL), with the exception of 4,4-DDE, which was reported above the RL in six (6) samples, as shown on Table 1. None of the reported 4,4-DDE concentrations exceeded the RSL or SL. The results for CS5-DUP and CS16-DUP were consistent with the OCP results from samples CS5 and CS16 indicating the results were consistent.

Arsenic was present in all 17 discrete samples ranging in concentration from 2.6 milligrams per kilogram (mg/kg) in sample D3 to 4.2 mg/kg in sample D9, as shown on Table 2. The arsenic concentrations reported for samples D1 through D17 exceed their Residential DTSC SL and RL for arsenic. The results for CS5-DUP and CS16-DUP were consistent with the arsenic results from samples CS5 and CS16. Based on referenced studies, the DTSC considers natural background concentrations in California for arsenic (12.0 mg/kg and 12.7 mg/kg).¹ Therefore, the reported concentrations of arsenic would not appear to represent an environmental concern for the site.

The laboratory report is provided in Appendix A.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings in the field and the laboratory analytical reports for the soil samples collected and analyzed from the subject 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.

LIMITATIONS

This soil investigation conducted at the subject site was not intended to characterize or define the extent of possible impact beneath the subject site; rather, this work was conducted to assess the presence or absence of significant concentrations of COPCs in shallow subsurface soil. The findings of this report were based upon the results of our field and laboratory investigations, along with the interpretation of subsurface conditions associated with our exploratory soil borings and soil samples. Therefore, the data are accurate only to the degree implied by review of the data obtained and by professional interpretation.

The soil sample locations were plotted using available maps (Figure 2) and existing site features. Therefore, the location of the borings should be considered accurate only to the degree implied by the methods used to locate them. The composite soil sample locations for OCPs and arsenic were established using ArcGIS software based on imagery from the National Aerial Imagery Program. These locations were then exported to and located in the field using the ArcCollector mobile application. Therefore, the location of the soil samples should be within 15 feet of the points displayed on Figure 2.

Chemical testing was done by laboratories certified by the State of California Department of Health Services. The results of the chemical testing are accurate only to the degree of care of ensuring the testing accuracy and the representative nature of the soil samples obtained.

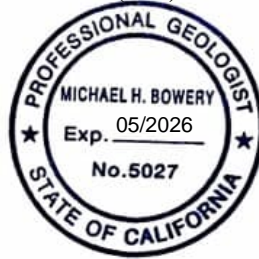
This subsurface investigation of the subject site has been limited in scope. This type of assessment is undertaken with the calculated risk that the presence, full nature and extent of contamination would not be revealed by methods employed. Therefore, no warranty is given; either expressed or implied that hazardous material contamination or buried structures, which would not have been disclosed through this investigation, do not exist at the subject site. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used.

This assessment and report were authorized by and prepared for the exclusive use of our client. Unauthorized use of or reliance on the information contained in this report without the expressed written consent of Krazan & Associates, Inc. is strictly prohibited.

¹ Chernoff, G. et. Al., *Determination of a South California Regional Background Arsenic Concentration in Soil*, undated. Hunter, P. et Al., *Inorganic Chemicals in Ground Water and Soil: Background Concentrations at California Air Forces Bases*, dated March 10, 2005.

CLOSING

We appreciate the opportunity to be of service. If you have any questions, or if we can be of further assistance, please feel free to contact me at (559) 348-2200.



Respectfully Submitted,
KRAZAN & ASSOCIATES, INC.

Michael H. Bowery, PG 5027
Senior Project Manager

Remington R. Alexander, PE 93713
Environmental Regional Manager

MHB/RRA/mlt

Attachments

Tables

Figure 1 Vicinity Map
Figure 2 Site Map

Appendix A Laboratory Analytical Report

Table 1
Lekkerkerker
Tulare, California 93274
September 13, 2024 - Soil Sample Results - OCPs
Concentrations are expressed in milligrams per kilogram (mg/kg)

Analyte	Sample ID																			RSLs		SLs	
	CS1	CS2	CS3	CS4	CS5	CS5 -DUP	CS6	CS7	CS8	CS9	CS10	CS11	CS12	CS13	CS14	CS15	CS16	CS16 -DUP	CS17	Residential	Industrial	Residential	Industrial
4,4'-DDD	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	2.3 c	9.6 c	1.9 c	6.2 c
4,4'-DDE	<0.005	<0.005	0.014	0.012	<0.005	<0.005	<0.005	0.0093	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0072	0.0078	0.0053	2.0 c	9.3 c	2.0 c	9.3 c
4,4'-DDT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1.9 c	8.5 c	1.9 c	7.1 c
Aldrin	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.039 c	0.18 c	0.039 c	0.18 c
alpha-BHC	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--
alpha-Chlordane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	36 n/c	500 n/c	--	--
beta-BHC	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--
delta-BHC	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--
Dieldrin	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.034 c	0.14 c	0.034 c	0.093 c
Endosulfan I	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	470 n/c	7000 n/c	450 n/c	6000 n/c
Endosulfan II	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	470 n/c	7000 n/c	450 n/c	6000 n/c
Endosulfan sulfate	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	380 n/c	4900 n/c	380 n/c	3200 n/c
Endrin	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	19 n/c	250 n/c	19 n/c	160 n/c
Endrin aldehyde	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--
Endrin ketone	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--
gamma-Chlordane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	36 n/c	500 n/c	--	--
gamma-BHC (Lidane)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--
Heptachlor	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.13 c	0.63 c	0.13 c	0.63 c
Heptachlor epoxide	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.07 c	0.33 c	0.07 c	0.33 c
Methoxychlor	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	320 n/c	4100 n/c	320 n/c	2600 n/c

DTSC SLs - HHRA Note 3 - DTSC-Modified Screening Levels - June 2020, Revised May 2022, Table 1: DTSC-recommended Screening Levels for Soil Analytes

EPA RSLs = United States Environmental Protection Agency, Regional Screening Level Summary Table (TR=1E-06, HQ=1.0) May 2024

Italicized = results were reported as non-detections. The Reporting Limit (RL) is displayed.

Bolded = results are reported higher than the RL.

Underlined = results are reported higher than the SL or RSL.

OCPs = Organic Chlorinated Pesticides by EPA Method 8010A

n/c = non-cancerous screening level

- = Not Established or Applicable

c = cancerous screening level

Table 2
Lekkerkerker
Tulare, California 93274
September 13, 2024 - Soil Sample Results - Arsenic
Concentrations are expressed in milligrams per kilogram (mg/kg)

Sample ID		Analyte
		Arsenic
D1		<u>2.9</u>
D2		<u>3.2</u>
D3		<u>2.6</u>
D4		<u>2.9</u>
D5		<u>2.8</u>
D6		<u>3.5</u>
D7		<u>3.3</u>
D8		<u>3.2</u>
D9		<u>4.2</u>
D10		<u>2.9</u>
D11		<u>3.5</u>
D12		<u>2.8</u>
D13		<u>2.8</u>
D14		<u>2.9</u>
D15		<u>2.3</u>
D16		<u>2.7</u>
D17		<u>2.8</u>
D5-DUP		<u>3.1</u>
D16-DUP		<u>2.8</u>
RSLs	Residential	0.68 c
	Industrial	3.0 c
SLs	Residential	0.11 c
	Industrial	0.36 c

DTSC SLs - HHRA Note 3 - DTSC-Modified Screening Levels - June 2020, Revised May 2022, Table 1: DTSC-recommended Screening Levels for Soil Analytes

EPA RSLs = United States Environmental Protection Agency, Regional Screening Level Summary Table (TR=1E-06, HQ=1.0) May 2024

Italicized = results were reported as non-detections. The Reporting Limit (RL) is displayed.

Bolded = results are reported higher than the RL.

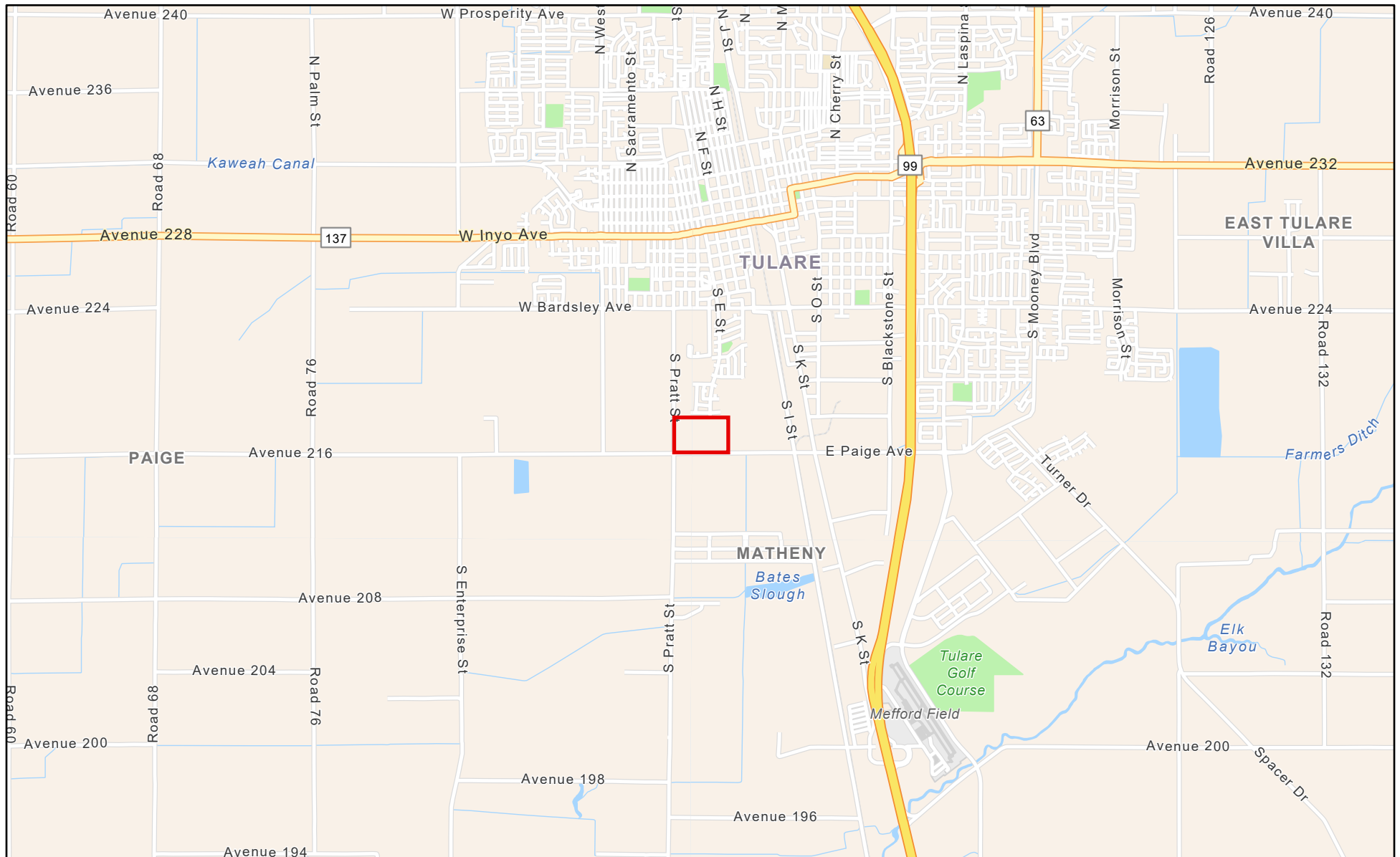
Underlined = results are reported higher than the SL or RSL.



OCPs = Organic Chlorinated Pesticides by EPA Method 8010A

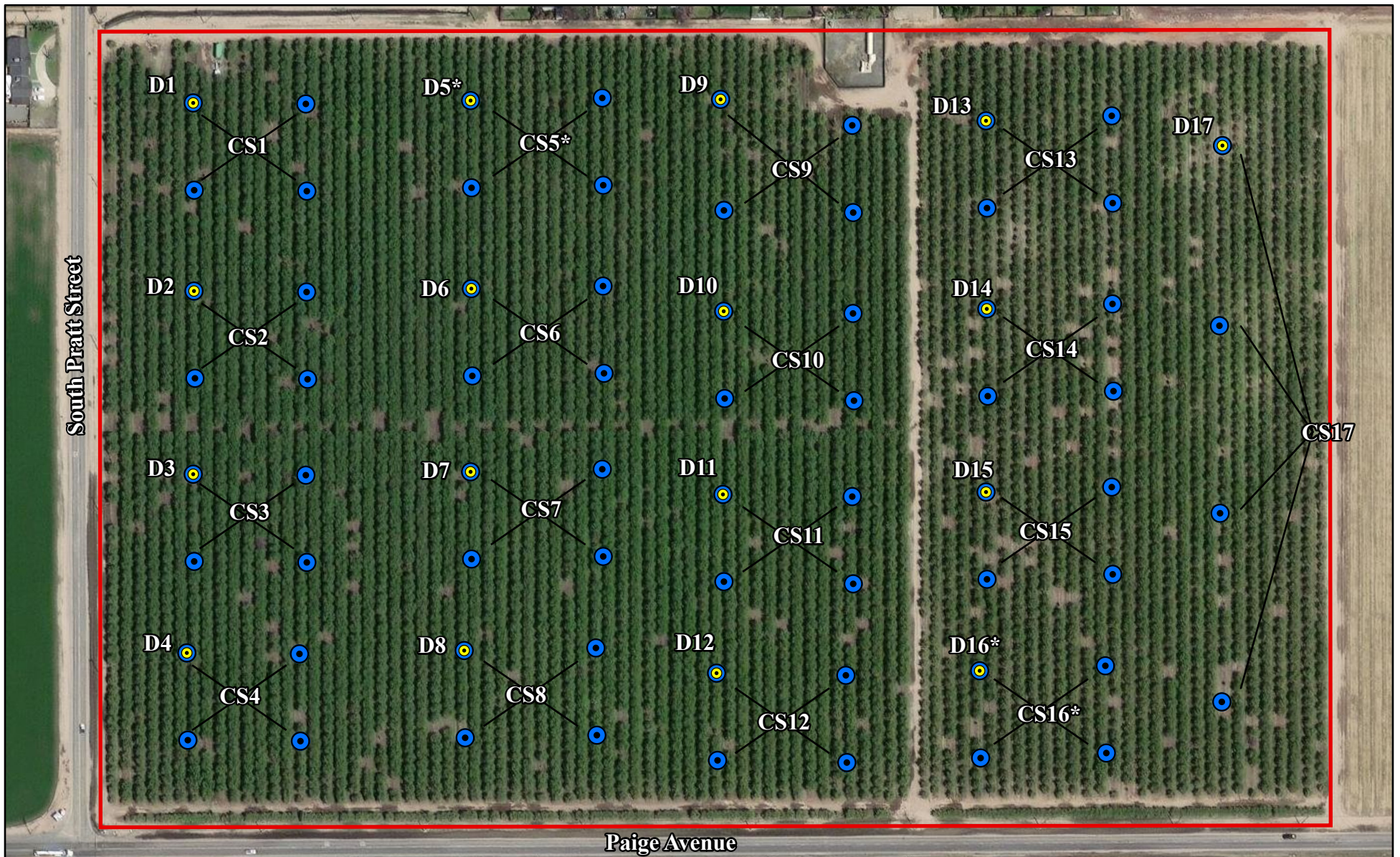
n/c = non-cancerous screening level

- = Not Established or Applicable

c = cancerous screening level



<p>LEGEND</p> <p> Subject Site Boundary</p> <p>N</p> <p>0 2,500 5,000 10,000 US Feet</p>	<p>VICINITY MAP</p>	<p>Scale: 1" = 5,000'</p>	<p>Date: October 2024</p>	 <p>SITE DEVELOPMENT ENGINEERS</p> <p><i>With Offices Serving the Western United States</i></p>
	<p>Lerkkerkerker Northeast Corner of Paige Avenue and South Pratt Street APNs 174-030-009 and -010 (57.31 Acres) Tulare, California 93274</p>	<p>Drawn By: DD</p>	<p>Approved By: DD</p>	
		<p>Project No: 014-24129</p>	<p>Figure No: 1</p>	



<div><div><div></div><div>Subject Site Boundary</div></div><div><div></div><div>Composite Sample Locations</div></div><div><div></div><div>Discrete Sample Locations</div></div><div><div>*</div><div>Duplicate Sample</div></div><div><div>0110220440</div><div></div><div>US Feet</div></div><div><div>N</div><div></div></div></div>	<div>SOIL SAMPLE LOCATION MAP</div>	<div>Scale:</div> <div>1" = 220'</div>	<div>Date:</div> <div>October 2024</div>	<div><div></div><div>Krazan</div><div>SITE DEVELOPMENT ENGINEERS</div><div>With Offices Serving the Western United States</div></div>
	<div>Lerkkerkerker</div> <div>Northeast Corner of</div> <div>Paige Avenue and South Pratt Street</div> <div>APNs 174-030-009 and -010 (57.31 Acres)</div> <div>Tulare, California 93274</div>	<div>Drawn By:</div> <div>DD</div>	<div>Approved By:</div> <div>DD</div>	
	<div>Project No:</div> <div>014-24129</div>	<div>Figure No:</div> <div>2</div>		

Appendix A



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

01 October 2024

Mike Bowery
Krazan, Clovis
215 West Dakota Avenue
Clovis, CA 93612
RE: 014-24129 Lekkerkerker

Enclosed are the results of analyses for samples received by the laboratory on 09/17/24 11:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee
Project Manager

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CS1	T243738-01	Soil	09/13/24 09:41	09/17/24 11:35
CS2	T243738-02	Soil	09/13/24 09:36	09/17/24 11:35
CS3	T243738-03	Soil	09/13/24 09:29	09/17/24 11:35
CS4	T243738-04	Soil	09/13/24 09:18	09/17/24 11:35
CS5	T243738-05	Soil	09/13/24 10:43	09/17/24 11:35
CS6	T243738-06	Soil	09/13/24 10:37	09/17/24 11:35
CS7	T243738-07	Soil	09/13/24 10:31	09/17/24 11:35
CS8	T243738-08	Soil	09/13/24 10:24	09/17/24 11:35
CS9	T243738-09	Soil	09/13/24 12:14	09/17/24 11:35
CS10	T243738-10	Soil	09/13/24 12:05	09/17/24 11:35
CS11	T243738-11	Soil	09/13/24 11:57	09/17/24 11:35
CS12	T243738-12	Soil	09/13/24 11:49	09/17/24 11:35
CS13	T243738-13	Soil	09/13/24 13:42	09/17/24 11:35
CS14	T243738-14	Soil	09/13/24 13:37	09/17/24 11:35
CS15	T243738-15	Soil	09/13/24 13:24	09/17/24 11:35
CS16	T243738-16	Soil	09/13/24 13:09	09/17/24 11:35
CS17	T243738-17	Soil	09/13/24 14:30	09/17/24 11:35
D1	T243738-18	Soil	09/13/24 09:41	09/17/24 11:35
D2	T243738-19	Soil	09/13/24 09:36	09/17/24 11:35
D3	T243738-20	Soil	09/13/24 09:29	09/17/24 11:35
D4	T243738-21	Soil	09/13/24 09:18	09/17/24 11:35
D5	T243738-22	Soil	09/13/24 10:43	09/17/24 11:35
D6	T243738-23	Soil	09/13/24 10:37	09/17/24 11:35
D7	T243738-24	Soil	09/13/24 10:31	09/17/24 11:35
D8	T243738-25	Soil	09/13/24 10:24	09/17/24 11:35
D9	T243738-26	Soil	09/13/24 12:14	09/17/24 11:35

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
D10	T243738-27	Soil	09/13/24 12:05	09/17/24 11:35
D11	T243738-28	Soil	09/13/24 11:57	09/17/24 11:35
D12	T243738-29	Soil	09/13/24 11:49	09/17/24 11:35
D13	T243738-30	Soil	09/13/24 13:42	09/17/24 11:35
D14	T243738-31	Soil	09/13/24 13:37	09/17/24 11:35
D15	T243738-32	Soil	09/13/24 13:24	09/17/24 11:35
D16	T243738-33	Soil	09/13/24 13:09	09/17/24 11:35
D17	T243738-34	Soil	09/13/24 14:30	09/17/24 11:35
CS5-DUP	T243738-35	Soil	09/13/24 10:43	09/17/24 11:35
CS16-DUP	T243738-36	Soil	09/13/24 13:09	09/17/24 11:35
D5-DUP	T243738-37	Soil	09/13/24 10:43	09/17/24 11:35
D16-DUP	T243738-38	Soil	09/13/24 13:09	09/17/24 11:35

Report revised to correct samples IDs per client's request. Sample ID for sample T243738-37 has changed from D5 to D5-DUP. Sample ID for sample T243738-38 has changed from D6 to D6-DUP. JL 10/01/24

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

DETECTIONS SUMMARY

Sample ID: D1		Laboratory ID: T243738-18			
Analyte	Result	Reporting		Units	Method
		Limit	Notes		
Arsenic	2.9	0.050		mg/kg	6020 ICP-MS
Sample ID: D2		Laboratory ID: T243738-19			
Analyte	Result	Reporting		Units	Method
		Limit	Notes		
Arsenic	3.2	0.050		mg/kg	6020 ICP-MS
Sample ID: D3		Laboratory ID: T243738-20			
Analyte	Result	Reporting		Units	Method
		Limit	Notes		
Arsenic	2.6	0.050		mg/kg	6020 ICP-MS
Sample ID: D4		Laboratory ID: T243738-21			
Analyte	Result	Reporting		Units	Method
		Limit	Notes		
Arsenic	2.9	0.050		mg/kg	6020 ICP-MS
Sample ID: D5		Laboratory ID: T243738-22			
Analyte	Result	Reporting		Units	Method
		Limit	Notes		
Arsenic	2.8	0.050		mg/kg	6020 ICP-MS
Sample ID: D6		Laboratory ID: T243738-23			
Analyte	Result	Reporting		Units	Method
		Limit	Notes		
Arsenic	3.5	0.050		mg/kg	6020 ICP-MS

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Jeff Lee, Project Manager

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

Sample ID: D7

Laboratory ID: T243738-24

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	3.3	0.050	mg/kg	6020 ICP-MS	

Sample ID: D8

Laboratory ID: T243738-25

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	3.2	0.050	mg/kg	6020 ICP-MS	

Sample ID: D9

Laboratory ID: T243738-26

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	4.2	0.050	mg/kg	6020 ICP-MS	

Sample ID: D10

Laboratory ID: T243738-27

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.9	0.050	mg/kg	6020 ICP-MS	

Sample ID: D11

Laboratory ID: T243738-28

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	3.5	0.050	mg/kg	6020 ICP-MS	

Sample ID: D12

Laboratory ID: T243738-29

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.8	0.050	mg/kg	6020 ICP-MS	

Sample ID: D13

Laboratory ID: T243738-30

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.8	0.050	mg/kg	6020 ICP-MS	

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Jeff Lee, Project Manager

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

Sample ID: D14

Laboratory ID: T243738-31

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.9	0.050	mg/kg	6020 ICP-MS	

Sample ID: D15

Laboratory ID: T243738-32

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.3	0.050	mg/kg	6020 ICP-MS	

Sample ID: D16

Laboratory ID: T243738-33

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.7	0.050	mg/kg	6020 ICP-MS	

Sample ID: D17

Laboratory ID: T243738-34

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.8	0.050	mg/kg	6020 ICP-MS	

Sample ID: D5-DUP

Laboratory ID: T243738-37

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	3.1	0.050	mg/kg	6020 ICP-MS	

Sample ID: D16-DUP

Laboratory ID: T243738-38

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Arsenic	2.8	0.050	mg/kg	6020 ICP-MS	

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Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D1
T243738-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.9	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D2
T243738-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	3.2	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D3
T243738-20 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.6	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D4
T243738-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.9	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D5
T243738-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.8	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D6
T243738-23 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	3.5	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D7
T243738-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	3.3	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
---------	-----	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D8
T243738-25 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	3.2	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
---------	-----	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D9
T243738-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	4.2	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
---------	-----	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D10
T243738-27 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.9	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D11
T243738-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	3.5	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D12
T243738-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.8	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
----------------	------------	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D13
T243738-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.8	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
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SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
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Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D14
T243738-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.9	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
----------------	------------	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D15
T243738-32 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.3	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
---------	-----	-------	-------	---	---------	----------	----------	-------------	--

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Jeff Lee, Project Manager



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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D16
T243738-33 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.7	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
---------	-----	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Lake Forest, California 92630
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949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D17
T243738-34 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.8	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
----------------	------------	-------	-------	---	---------	----------	----------	-------------	--

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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D5-DUP
T243738-37 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	3.1	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
----------------	------------	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Lake Forest, California 92630
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Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

D16-DUP
T243738-38 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

SunStar Laboratories, Inc.

Metals by EPA 6020 Method

Arsenic	2.8	0.050	mg/kg	1	24I0226	09/17/24	09/20/24	6020 ICP-MS	
---------	-----	-------	-------	---	---------	----------	----------	-------------	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

Metals by EPA 6020 Method - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch 24I0226 - EPA 3050B

Blank (24I0226-BLK1)

Prepared: 09/17/24 Analyzed: 09/20/24

Arsenic	ND	0.050	mg/kg							
---------	----	-------	-------	--	--	--	--	--	--	--

LCS (24I0226-BS1)

Prepared: 09/17/24 Analyzed: 09/20/24

Arsenic	22.6	0.050	mg/kg	25.0		90.4	80-120			
---------	------	-------	-------	------	--	------	--------	--	--	--

Matrix Spike (24I0226-MS1)

Source: T243738-18

Prepared: 09/17/24 Analyzed: 09/20/24

Arsenic	28.4	0.050	mg/kg	25.0	2.91	102	75-125			
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Matrix Spike Dup (24I0226-MSD1)

Source: T243738-18

Prepared: 09/17/24 Analyzed: 09/20/24

Arsenic	28.6	0.050	mg/kg	25.0	2.91	103	75-125	0.597	20	
---------	------	-------	-------	------	------	-----	--------	-------	----	--

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Krazan, Clovis
215 West Dakota Avenue
Clovis CA, 93612

Project: 014-24129 Lekkerkerker
Project Number: [none]
Project Manager: Mike Bowery

Reported:
10/01/24 10:25

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager

T243738

Krazan & Associates, Inc. 215 W. Dakota Avenue, Clovis, CA 93612, (559) 348-2200, FAX (559) 348-2190

Page 1 of 4

CHAIN-OF-CUSTODY RECORD

DATE: 9/13/2024

Lab ID:

Client:		Krazan & Associates, Inc.				REQUESTED ANALYSIS														
Address:		215 West Dakota Avenue Clovis, CA 93612				<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> Full 8200 OCPS (8081A) Arsenic (6020B) </div>														
Sampled By:		D. De Leon																		
Phone:		(559) 348-2200																		
Email:		michaelbowery@krazan.com																		
Project Manager:		Michael Bowery																		
Project Number:		014-24129 Lekkerkerker																		
Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container																
				#	Type															
1 CS1	9/13/2024	0941	Soil	4	Sleeve	X	X													
2 CS2	9/13/2024	0936	Soil	4	Sleeve															
3 CS3	9/13/2024	0929	Soil	4	Sleeve															
4 CS4	9/13/2024	0918	Soil	4	Sleeve															
5 CS5	9/13/2024	1043	Soil	4	Sleeve															
6 CS6	9/13/2024	1037	Soil	4	Sleeve															
7 CS7	9/13/2024	1031	Soil	4	Sleeve															
8 CS8	9/13/2024	1024	Soil	4	Sleeve															
9 CS9	9/13/2024	1214	Soil	4	Sleeve															
10 CS10	9/13/2024	1205	Soil	4	Sleeve															
Sample Preservative:					YES	No	Signature:		Signature:											
Turnaround Time:					Standard		Print: Dulcinea De Leon		Print:											
Comments:							Company: Krazan & Associates		Company:											
							Date: 9/16/24 Time: 11:30		Date: Time:											
							Signature: Fed. Ex		Signature: [Signature]											
							Print:		Print: Dave											
							Company:		Company: Sunstar											
							Date:		Date: 9-17-24 Time: 11:35											

2.9°

CHAIN-OF-CUSTODY RECORD

DATE: 9/13/2024

Lab ID:

Client:		Krazan & Associates, Inc.				REQUESTED ANALYSIS														
Address:		215 West Dakota Avenue Clovis, CA 93612				Full - 8260 - OCPs (8081A) Arsenic (6020B)														
Sampled By:		D. De Leon																		
Phone:		(559) 348-2200																		
Email:		michaelbowery@krazan.com																		
Project Manager:		Michael Bowery																		
Project Number:		014-24129 Lekkerkerker																		
Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container																
				#	Type															
11 CS11	9/13/2024	1157	Soil	4	Sleeve															
12 CS12	9/13/2024	1149	Soil	4	Sleeve															
13 CS13	9/13/2024	1342	Soil	4	Sleeve															
14 CS14	9/13/2024	1337	Soil	4	Sleeve															
15 CS15	9/13/2024	1324	Soil	4	Sleeve															
16 CS16	9/13/2024	1309	Soil	4	Sleeve															
17 CS17	9/13/2024	1430	Soil	4	Sleeve															
18 D1	9/13/2024	0941	Soil	4	Sleeve															
19 D2	9/13/2024	0936	Soil	4	Sleeve															
20 D3	9/13/2024	0929	Soil	4	Sleeve															
Sample Preservative:					YES		No		Signature:		<i>Ducinea De Leon</i>		Signature:							
Turnaround Time:					Standard				Print:		Ducinea De Leon		Print:							
Company:					Krazan & Associates				Company:		Krazan & Associates		Company:							
Date:					9/16/24		Time: 1630		Date:		9/16/24		Date:		Time:					
Signature:					<i>Fed Ex</i>				Signature:		<i>Dave</i>		Signature:		<i>Dave</i>					
Print:									Print:				Print:		<i>Sungstar</i>					
Company:									Company:				Company:							
Date:							Time:		Date:				Date:		7.17.24		Time: 1135			

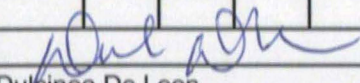
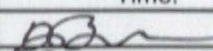
Comments:

Please combine parts A,B,C, and D into one composite sample for CS1-
CS10, CS -DUP, and CS -DUP for a total of 10 four-part composite
samples and two (2) four-part duplicate composite samples.

CHAIN-OF-CUSTODY RECORD

DATE: 9/13/2024

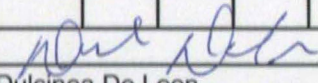
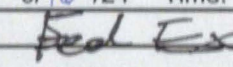
Lab ID:

Client:		Krazan & Associates, Inc.				REQUESTED ANALYSIS														
Address:		215 West Dakota Avenue Clovis, CA 93612				Fall 9260 OCPs (8081A)	Arsenic (6020B)													
Sampled By:		D. De Leon																		
Phone:		(559) 348-2200																		
Email:		michaelbowery@krazan.com																		
Project Manager:		Michael Bowery																		
Project Number:		014-24129 Lekkerkerker																		
Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container																
				#	Type															
21 D4	9/13/2024	0918	Soil	4	Sleeve															
22 D5	9/13/2024	1043	Soil	4	Sleeve															
23 D6	9/13/2024	1037	Soil	4	Sleeve															
24 D7	9/13/2024	1031	Soil	4	Sleeve															
25 D8	9/13/2024	1024	Soil	4	Sleeve															
26 D9	9/13/2024	1214	Soil	4	Sleeve															
27 D10	9/13/2024	1205	Soil	4	Sleeve															
28 D11	9/13/2024	1157	Soil	4	Sleeve															
29 D12	9/13/2024	1149	Soil	4	Sleeve															
30 D13	9/13/2024	1342	Soil	4	Sleeve															
Sample Preservative:					YES		No		Signature:				Signature:							
Turnaround Time:					Standard				Print:		Dulcinea De Leon		Print:							
Comments:									Company:		Krazan & Associates		Company:							
									Date:		9/16/24 Time: 1630		Date:							
									Signature:		Fed Ex		Signature:							
									Print:				Print:		Dave					
									Company:				Company:		Sunstar					
									Date:				Date:		9.17.24		Time: 1135			

CHAIN-OF-CUSTODY RECORD

DATE: 9/13/2024

Lab ID:

Client:		Krazan & Associates, Inc.				REQUESTED ANALYSIS													
Address:		215 West Dakota Avenue Clovis, CA 93612				Full-8260 OCP's (8081A) Arsenic (6020B)													
Sampled By:		D. De Leon																	
Phone:		(559) 348-2200																	
Email:		michaelbowery@krazan.com																	
Project Manager:		Michael Bowery																	
Project Number:		014-24129 Lekkerkerker																	
Client Sample ID		Sample Date	Sample Time	Sample Matrix	Container														
					#	Type													
31	D14	9/13/2024	1337	Soil	4	Sleeve													
32	D15	9/13/2024	1324	Soil	4	Sleeve													
33	D16	9/13/2024	1309	Soil	4	Sleeve													
34	D17	9/13/2024	1430	Soil	4	Sleeve													
35	CS5-DUP	9/13/2024	1043	Soil	4	Sleeve													
36	CS16-DUP	9/13/2024	1309	Soil	4	Sleeve													
37	D5	9/13/2024	1043	Soil	4	Sleeve													
38	D16	9/13/2024	1309	Soil	4	Sleeve													
39																			
40																			
						Signature:	 Dulcinea De Leon Krazan & Associates Date: 9/16/24 Time: 1630				Signature:								
Sample Preservative:						Print:					Signature:				Print:				
Turnaround Time:						Company:					Signature:				Print:				
Comments:						Date:	Time:				Date:				Time:				
						Signature:	 Dave Sonstar Date: 9/17/24 Time: 1035				Signature:								
						Print:					Signature:				Print:				
						Company:					Signature:				Print:				
						Date:	Time:				Date:				Time:				

2.96

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T243738

Client Name: Krazan & Associates Project: Lekkerkerker

Delivered by: ☐ Client ☐ SunStar Courier ☐ GLS ☒ FedEx ☐ Other

If Courier, Received by: _____ Date/Time Courier Received: _____

Lab Received by: Dave Date/Time Lab Received: 9.17.24 1135

Total number of coolers received: 1 Thermometer ID: SC-1 Calibration due: 11/17/2024

Temperature: Cooler #1 <u>2.8</u> °C +/- the CF (+ 0.1°C) = <u>2.9</u> °C corrected temperature	
Temperature: Cooler #2 _____ °C +/- the CF (+ 0.1°C) = _____ °C corrected temperature	
Temperature: Cooler #3 _____ °C +/- the CF (+ 0.1°C) = _____ °C corrected temperature	
Temperature criteria = ≤ 6°C (no frozen containers)	Within criteria? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
If NO:	
Samples received on ice? <input type="checkbox"/> Yes	<input type="checkbox"/> No → Complete Non-Conformance Sheet
If on ice, samples received same day collected? <input type="checkbox"/> Yes → Acceptable	<input type="checkbox"/> No → Complete Non-Conformance Sheet

Custody seals intact on cooler/sample ☐ Yes ☐ No* ☒ N/A

Sample containers intact ☒ Yes ☐ No*

Sample labels match Chain of Custody IDs ☒ Yes ☐ No*

Total number of containers received match COC ☒ Yes ☐ No*

Proper containers received for analyses requested on COC ☒ Yes ☐ No*

Proper preservative indicated on COC/containers for analyses requested ☐ Yes ☐ No* ☒ N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times ☒ Yes ☐ No*

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date: DS 9.17.24

Comments:

ORIGIN ID: FATA (559) 348-2200
DULCINEA DE LEON
KRAZAN & ASSOCIATES
215 W. DAKOTA AVE

SHIP DATE: 16SEP24
ACTWGT: 65.00 LB
CAD: 8384005/NET4760

CLOVIS, CA 93612
UNITED STATES US

BILL RECIPIENT

TO **SUNSTAR LABORATORIES, INC.**
SUNSTAR LABORATORIES, INC.
25712 COMMERCENTRE DR

583J24EF99AE3

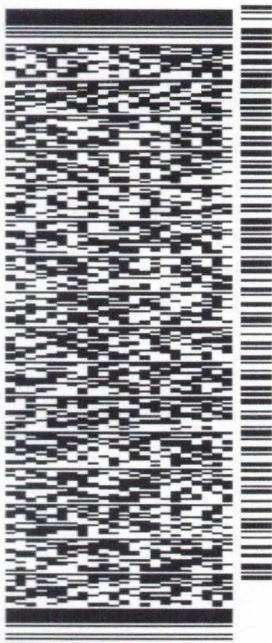
LAKE FOREST CA 92630

(949) 297-5020

REF: 01424129-MB/DADMLT

INV: PO: 014-02

DEPT



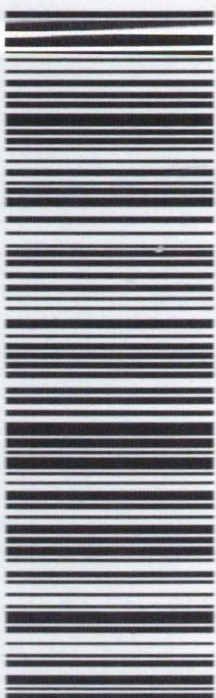
J243824071301ur

TRK# 7786 2723 3794
0201

TUE - 17 SEP 5:00P
STANDARD OVERNIGHT

WZ NZ JA

CA-US 92630
SNA



After printing this label:

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2. Fold the printed page along the horizontal line.
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ANALYTICAL REPORT

PREPARED FOR

Attn: Jeff Lee
SunStar Laboratories Inc
25712 Commercentre Drive
Lake Forest, California 92630

Generated 9/27/2024 3:45:10 PM

JOB DESCRIPTION

T243738

JOB NUMBER

570-199661-1

Eurofins Calscience

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Authorized for release by
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Definitions/Glossary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: SunStar Laboratories Inc
Project: T243738

Job ID: 570-199661-1

Job ID: 570-199661-1

Eurofins Calscience

Job Narrative 570-199661-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/19/2024 12:57 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C.

Pesticides

Method 8081A: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 570-482803 and analytical batch 570-483577: Heptachlor epoxide. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8081A: The continuing calibration verification (CCV) associated with batch 570-484024 recovered above the upper control limit for alpha-BHC and Chlordane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: T243738-12 (570-199661-12), T243738-13 (570-199661-13), T243738-14 (570-199661-14), T243738-15 (570-199661-15), T243738-17 (570-199661-17), T243738-35 (570-199661-18) and T243738-36 (570-199661-19).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Client Sample ID: T243738-01

Lab Sample ID: 570-199661-1

No Detections.

Client Sample ID: T243738-02

Lab Sample ID: 570-199661-2

No Detections.

Client Sample ID: T243738-03

Lab Sample ID: 570-199661-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	14		5.0	ug/Kg	1		8081A	Total/NA

Client Sample ID: T243738-04

Lab Sample ID: 570-199661-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	12		5.0	ug/Kg	1		8081A	Total/NA

Client Sample ID: T243738-05

Lab Sample ID: 570-199661-5

No Detections.

Client Sample ID: T243738-06

Lab Sample ID: 570-199661-6

No Detections.

Client Sample ID: T243738-07

Lab Sample ID: 570-199661-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	9.3		5.0	ug/Kg	1		8081A	Total/NA

Client Sample ID: T243738-08

Lab Sample ID: 570-199661-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	10		5.0	ug/Kg	1		8081A	Total/NA

Client Sample ID: T243738-09

Lab Sample ID: 570-199661-9

No Detections.

Client Sample ID: T243738-10

Lab Sample ID: 570-199661-10

No Detections.

Client Sample ID: T243738-11

Lab Sample ID: 570-199661-11

No Detections.

Client Sample ID: T243738-12

Lab Sample ID: 570-199661-12

No Detections.

Client Sample ID: T243738-13

Lab Sample ID: 570-199661-13

No Detections.

Client Sample ID: T243738-14

Lab Sample ID: 570-199661-14

No Detections.

Client Sample ID: T243738-15

Lab Sample ID: 570-199661-15

No Detections.

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Client Sample ID: T243738-16

Lab Sample ID: 570-199661-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	7.2		5.0	ug/Kg	1		8081A	Total/NA

Client Sample ID: T243738-17

Lab Sample ID: 570-199661-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	5.3		5.0	ug/Kg	1		8081A	Total/NA

Client Sample ID: T243738-35

Lab Sample ID: 570-199661-18

No Detections.

Client Sample ID: T243738-36

Lab Sample ID: 570-199661-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	7.8		4.9	ug/Kg	1		8081A	Total/NA

Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC)

Client Sample ID: T243738-01
Date Collected: 09/13/24 09:41
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-1
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	71		38 - 148	09/19/24 17:13	09/23/24 14:22	1
DCB Decachlorobiphenyl (Surr)	75		37 - 151	09/19/24 17:13	09/23/24 14:22	1

Client Sample ID: T243738-02
Date Collected: 09/13/24 09:36
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-2
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:04	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	58		38 - 148	09/19/24 17:13	09/23/24 22:04	1
DCB Decachlorobiphenyl (Surr)	75		37 - 151	09/19/24 17:13	09/23/24 22:04	1

Client Sample ID: T243738-03

Date Collected: 09/13/24 09:29

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-3

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
4,4'-DDE	14		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	65		38 - 148	09/19/24 17:13	09/23/24 22:18	1
DCB Decachlorobiphenyl (Surr)	83		37 - 151	09/19/24 17:13	09/23/24 22:18	1

Client Sample ID: T243738-04

Date Collected: 09/13/24 09:18

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-4

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
4,4'-DDE	12		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: T243738-04

Date Collected: 09/13/24 09:18

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-4

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	78		38 - 148			09/19/24 17:13	09/23/24 15:05	1
DCB Decachlorobiphenyl (Surr)	76		37 - 151			09/19/24 17:13	09/23/24 15:05	1

Client Sample ID: T243738-05

Date Collected: 09/13/24 10:43

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-5

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	110		38 - 148			09/19/24 17:13	09/23/24 15:19	1
DCB Decachlorobiphenyl (Surr)	79		37 - 151			09/19/24 17:13	09/23/24 15:19	1

Client Sample ID: T243738-06

Date Collected: 09/13/24 10:37

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-6

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: T243738-06

Date Collected: 09/13/24 10:37

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-6

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	59		38 - 148			09/19/24 17:13	09/23/24 15:33	1
DCB Decachlorobiphenyl (Surr)	74		37 - 151			09/19/24 17:13	09/23/24 15:33	1

Client Sample ID: T243738-07

Date Collected: 09/13/24 10:31

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-7

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
4,4'-DDE	9.3		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 15:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	68		38 - 148			09/19/24 17:13	09/23/24 15:47	1
DCB Decachlorobiphenyl (Surr)	75		37 - 151			09/19/24 17:13	09/23/24 15:47	1

Client Sample ID: T243738-08

Date Collected: 09/13/24 10:24

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-8

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: T243738-08
Date Collected: 09/13/24 10:24
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-8
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	10		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	62		38 - 148	09/19/24 17:13	09/23/24 16:01	1
DCB Decachlorobiphenyl (Surr)	80		37 - 151	09/19/24 17:13	09/23/24 16:01	1

Client Sample ID: T243738-09
Date Collected: 09/13/24 12:14
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-9
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:15	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	86		38 - 148	09/19/24 17:13	09/23/24 16:15	1
DCB Decachlorobiphenyl (Surr)	75		37 - 151	09/19/24 17:13	09/23/24 16:15	1

Client Sample ID: T243738-10

Lab Sample ID: 570-199661-10

Date Collected: 09/13/24 12:05

Matrix: Solid

Date Received: 09/19/24 12:57

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:13	09/23/24 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	60		38 - 148	09/19/24 17:13	09/23/24 16:30	1
DCB Decachlorobiphenyl (Surr)	76		37 - 151	09/19/24 17:13	09/23/24 16:30	1

Client Sample ID: T243738-11

Lab Sample ID: 570-199661-11

Date Collected: 09/13/24 11:57

Matrix: Solid

Date Received: 09/19/24 12:57

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
4,4'-DDE	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
4,4'-DDT	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Aldrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
alpha-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
alpha-Chlordane	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
beta-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
delta-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Dieldrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Endosulfan I	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Endosulfan II	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Endrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Endrin aldehyde	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Endrin ketone	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
gamma-Chlordane	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: T243738-11
Date Collected: 09/13/24 11:57
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-11
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Methoxychlor	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	86		38 - 148			09/25/24 09:17	09/27/24 11:25	1
DCB Decachlorobiphenyl (Surr)	52		37 - 151			09/25/24 09:17	09/27/24 11:25	1

Client Sample ID: T243738-12
Date Collected: 09/13/24 11:49
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-12
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	53		38 - 148			09/19/24 17:31	09/24/24 13:45	1
DCB Decachlorobiphenyl (Surr)	70		37 - 151			09/19/24 17:31	09/24/24 13:45	1

Client Sample ID: T243738-13
Date Collected: 09/13/24 13:42
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-13
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: T243738-13
Date Collected: 09/13/24 13:42
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-13
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	54		38 - 148			09/19/24 17:31	09/24/24 14:00	1
DCB Decachlorobiphenyl (Surr)	69		37 - 151			09/19/24 17:31	09/24/24 14:00	1

Client Sample ID: T243738-14
Date Collected: 09/13/24 13:37
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-14
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	58		38 - 148			09/19/24 17:31	09/24/24 14:15	1
DCB Decachlorobiphenyl (Surr)	77		37 - 151			09/19/24 17:31	09/24/24 14:15	1

Client Sample ID: T243738-15
Date Collected: 09/13/24 13:24
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-15
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: T243738-15
Date Collected: 09/13/24 13:24
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-15
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	59		38 - 148	09/19/24 17:31	09/24/24 14:31	1
DCB Decachlorobiphenyl (Surr)	76		37 - 151	09/19/24 17:31	09/24/24 14:31	1

Client Sample ID: T243738-16
Date Collected: 09/13/24 13:09
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-16
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
4,4'-DDE	7.2		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
4,4'-DDT	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Aldrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
alpha-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
alpha-Chlordane	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
beta-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
delta-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Dieldrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Endosulfan I	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Endosulfan II	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Endrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Endrin aldehyde	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Endrin ketone	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
gamma-Chlordane	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Heptachlor	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1
Methoxychlor	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 11:39	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	58		38 - 148	09/25/24 09:17	09/27/24 11:39	1
DCB Decachlorobiphenyl (Surr)	60		37 - 151	09/25/24 09:17	09/27/24 11:39	1

Client Sample ID: T243738-17

Date Collected: 09/13/24 14:30

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-17

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
4,4'-DDE	5.3		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
4,4'-DDT	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Aldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
alpha-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
alpha-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
beta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
delta-BHC	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Dieldrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Endosulfan I	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Endosulfan II	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Endrin	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Endrin aldehyde	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Endrin ketone	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
gamma-Chlordane	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Heptachlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1
Methoxychlor	ND		5.0	ug/Kg		09/19/24 17:31	09/24/24 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	60		38 - 148	09/19/24 17:31	09/24/24 15:01	1
DCB Decachlorobiphenyl (Surr)	79		37 - 151	09/19/24 17:31	09/24/24 15:01	1

Client Sample ID: T243738-35

Date Collected: 09/13/24 10:43

Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-18

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
4,4'-DDE	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
4,4'-DDT	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Aldrin	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
alpha-BHC	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
alpha-Chlordane	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
beta-BHC	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
delta-BHC	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Dieldrin	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Endosulfan I	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Endosulfan II	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Endosulfan sulfate	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Endrin	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Endrin aldehyde	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Endrin ketone	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
gamma-Chlordane	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
gamma-BHC (Lindane)	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1

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Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: T243738-35
Date Collected: 09/13/24 10:43
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-18
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Heptachlor epoxide	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Methoxychlor	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	59		38 - 148			09/19/24 17:31	09/24/24 15:16	1
DCB Decachlorobiphenyl (Surr)	73		37 - 151			09/19/24 17:31	09/24/24 15:16	1

Client Sample ID: T243738-36
Date Collected: 09/13/24 13:09
Date Received: 09/19/24 12:57

Lab Sample ID: 570-199661-19
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
4,4'-DDE	7.8		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
4,4'-DDT	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Aldrin	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
alpha-BHC	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
alpha-Chlordane	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
beta-BHC	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
delta-BHC	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Dieldrin	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Endosulfan I	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Endosulfan II	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Endosulfan sulfate	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Endrin	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Endrin aldehyde	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Endrin ketone	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
gamma-Chlordane	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
gamma-BHC (Lindane)	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Heptachlor	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Heptachlor epoxide	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Methoxychlor	ND		4.9	ug/Kg		09/19/24 17:31	09/24/24 15:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	56		38 - 148			09/19/24 17:31	09/24/24 15:32	1
DCB Decachlorobiphenyl (Surr)	71		37 - 151			09/19/24 17:31	09/24/24 15:32	1

Surrogate Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TCX2	DCB1				
		(38-148)	(37-151)				
570-199661-1	T243738-01	71	75				
570-199661-2	T243738-02	58	75				
570-199661-4	T243738-04	78	76				
570-199661-7	T243738-07	68	75				
570-199661-8	T243738-08	62	80				
570-199661-9	T243738-09	86	75				
570-199661-11	T243738-11	86	52				
570-199661-11 MS	T243738-11	52	50				
570-199661-11 MSD	T243738-11	63	53				
570-199661-16	T243738-16	58	60				
LCSD 570-482797/3-A	Lab Control Sample Dup	75	80				
Surrogate Legend							
TCX = Tetrachloro-m-xylene (Surr)							
DCB = DCB Decachlorobiphenyl (Surr)							

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TCX2	DCB2				
		(38-148)	(37-151)				
570-199661-5	T243738-05	110	79				
570-199661-10	T243738-10	60	76				
570-199661-12	T243738-12	53	70				
570-199661-13	T243738-13	54	69				
570-199661-14	T243738-14	58	77				
570-199661-15	T243738-15	59	76				
570-199661-17	T243738-17	60	79				
570-199661-18	T243738-35	59	73				
570-199661-19	T243738-36	56	71				
MB 570-482803/1-A	Method Blank	87	78				
Surrogate Legend							
TCX = Tetrachloro-m-xylene (Surr)							
DCB = DCB Decachlorobiphenyl (Surr)							

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TCX1	DCB1				
		(38-148)	(37-151)				
570-199661-3	T243738-03	65	83				
570-199661-6	T243738-06	59	74				
LCS 570-482797/2-A	Lab Control Sample	73	77				
LCS 570-482803/2-A	Lab Control Sample	73	77				
LCS 570-484567/2-A	Lab Control Sample	76	77				
LCSD 570-482803/3-A	Lab Control Sample Dup	72	76				
LCSD 570-484567/3-A	Lab Control Sample Dup	74	76				
MB 570-482797/1-A	Method Blank	72	68				

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Surrogate Summary

Client: SunStar Laboratories Inc

Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TCX1 (38-148)	DCB1 (37-151)				
MB 570-484567/1-A	Method Blank	77	78				
Surrogate Legend							
TCX = Tetrachloro-m-xylene (Surr)							
DCB = DCB Decachlorobiphenyl (Surr)							

QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 570-482797/1-A

Matrix: Solid

Analysis Batch: 483550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482797

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
4,4'-DDE	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
4,4'-DDT	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Aldrin	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
alpha-BHC	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
alpha-Chlordane	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
beta-BHC	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
delta-BHC	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Dieldrin	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Endosulfan I	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Endosulfan II	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Endrin	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Endrin aldehyde	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Endrin ketone	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
gamma-Chlordane	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Heptachlor	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1
Methoxychlor	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 02:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	72		38 - 148	09/17/24 17:34	09/23/24 02:43	1
DCB Decachlorobiphenyl (Surr)	68		37 - 151	09/17/24 17:34	09/23/24 02:43	1

Lab Sample ID: LCS 570-482797/2-A

Matrix: Solid

Analysis Batch: 483550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482797

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	25.0	16.76		ug/Kg		67	54 - 154
4,4'-DDE	25.0	16.17		ug/Kg		65	51 - 149
4,4'-DDT	25.0	17.03		ug/Kg		68	39 - 152
Aldrin	25.0	15.54		ug/Kg		62	52 - 138
alpha-BHC	25.0	15.84		ug/Kg		63	51 - 140
alpha-Chlordane	25.0	15.95		ug/Kg		64	53 - 141
beta-BHC	25.0	16.01		ug/Kg		64	53 - 141
delta-BHC	25.0	14.91		ug/Kg		60	20 - 132
Dieldrin	25.0	16.08		ug/Kg		64	52 - 144
Endosulfan I	25.0	15.84		ug/Kg		63	49 - 139
Endosulfan II	25.0	15.91		ug/Kg		64	51 - 150
Endosulfan sulfate	25.0	15.80		ug/Kg		63	45 - 139
Endrin	25.0	16.89		ug/Kg		68	53 - 151
Endrin aldehyde	25.0	16.30		ug/Kg		65	31 - 146
Endrin ketone	25.0	16.00		ug/Kg		64	51 - 150
gamma-Chlordane	25.0	15.74		ug/Kg		63	46 - 156
gamma-BHC (Lindane)	25.0	16.25		ug/Kg		65	53 - 141
Heptachlor	25.0	15.88		ug/Kg		64	52 - 144

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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-482797/2-A

Matrix: Solid

Analysis Batch: 483550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482797

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide	25.0	15.56		ug/Kg		62	54 - 141
Methoxychlor	25.0	16.77		ug/Kg		67	47 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene (Surr)	73		38 - 148
DCB Decachlorobiphenyl (Surr)	77		37 - 151

Lab Sample ID: LCSD 570-482797/3-A

Matrix: Solid

Analysis Batch: 483550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 482797

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	25.0	16.79		ug/Kg		67	54 - 154	0	30
4,4'-DDE	25.0	16.34		ug/Kg		65	51 - 149	1	28
4,4'-DDT	25.0	17.24		ug/Kg		69	39 - 152	2	31
Aldrin	25.0	15.86		ug/Kg		63	52 - 138	2	30
alpha-BHC	25.0	16.26		ug/Kg		65	51 - 140	3	29
alpha-Chlordane	25.0	16.20		ug/Kg		65	53 - 141	2	28
beta-BHC	25.0	16.41		ug/Kg		66	53 - 141	2	29
delta-BHC	25.0	15.27		ug/Kg		61	20 - 132	2	40
Dieldrin	25.0	16.54		ug/Kg		66	52 - 144	3	28
Endosulfan I	25.0	16.07		ug/Kg		64	49 - 139	1	28
Endosulfan II	25.0	16.05		ug/Kg		64	51 - 150	3	29
Endosulfan sulfate	25.0	16.26		ug/Kg		65	45 - 139	3	30
Endrin	25.0	17.17		ug/Kg		69	53 - 151	2	29
Endrin aldehyde	25.0	16.47		ug/Kg		66	31 - 146	1	40
Endrin ketone	25.0	16.42		ug/Kg		66	51 - 150	3	30
gamma-Chlordane	25.0	15.99		ug/Kg		64	46 - 156	2	39
gamma-BHC (Lindane)	25.0	16.70		ug/Kg		67	53 - 141	3	29
Heptachlor	25.0	16.25		ug/Kg		65	52 - 144	2	29
Heptachlor epoxide	25.0	15.87		ug/Kg		63	54 - 141	2	29
Methoxychlor	25.0	17.16		ug/Kg		69	47 - 148	2	29

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene (Surr)	75		38 - 148
DCB Decachlorobiphenyl (Surr)	80		37 - 151

Lab Sample ID: MB 570-482803/1-A

Matrix: Solid

Analysis Batch: 483577

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482803

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
4,4'-DDE	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
4,4'-DDT	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Aldrin	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
alpha-BHC	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
alpha-Chlordane	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1

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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 570-482803/1-A

Matrix: Solid

Analysis Batch: 483577

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482803

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
delta-BHC	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Dieldrin	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Endosulfan I	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Endosulfan II	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Endrin	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Endrin aldehyde	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Endrin ketone	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
gamma-Chlordane	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Heptachlor	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Heptachlor epoxide	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Methoxychlor	ND		5.0	ug/Kg		09/17/24 17:34	09/23/24 05:00	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	87		38 - 148			09/17/24 17:34	09/23/24 05:00	1
DCB Decachlorobiphenyl (Surr)	78		37 - 151			09/17/24 17:34	09/23/24 05:00	1

Lab Sample ID: LCS 570-482803/2-A

Matrix: Solid

Analysis Batch: 483577

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	25.0	16.18		ug/Kg		65	54 - 154
4,4'-DDE	25.0	15.83		ug/Kg		63	51 - 149
4,4'-DDT	25.0	16.91		ug/Kg		68	39 - 152
Aldrin	25.0	15.23		ug/Kg		61	52 - 138
alpha-BHC	25.0	15.60		ug/Kg		62	51 - 140
alpha-Chlordane	25.0	15.59		ug/Kg		62	53 - 141
beta-BHC	25.0	15.43		ug/Kg		62	53 - 141
delta-BHC	25.0	14.17		ug/Kg		57	20 - 132
Dieldrin	25.0	15.84		ug/Kg		63	52 - 144
Endosulfan I	25.0	15.35		ug/Kg		61	49 - 139
Endosulfan II	25.0	15.55		ug/Kg		62	51 - 150
Endosulfan sulfate	25.0	15.51		ug/Kg		62	45 - 139
Endrin	25.0	15.66		ug/Kg		63	53 - 151
Endrin aldehyde	25.0	15.80		ug/Kg		63	31 - 146
Endrin ketone	25.0	16.09		ug/Kg		64	51 - 150
gamma-Chlordane	25.0	14.77		ug/Kg		59	46 - 156
gamma-BHC (Lindane)	25.0	15.87		ug/Kg		63	53 - 141
Heptachlor	25.0	15.40		ug/Kg		62	52 - 144
Heptachlor epoxide	25.0	15.19		ug/Kg		61	54 - 141
Methoxychlor	25.0	16.98		ug/Kg		68	47 - 148
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Tetrachloro-m-xylene (Surr)	73		38 - 148				
DCB Decachlorobiphenyl (Surr)	77		37 - 151				

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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: LCSD 570-482803/3-A

Matrix: Solid

Analysis Batch: 483577

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 482803

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	25.0	14.56		ug/Kg		58	54 - 154	11	30
4,4'-DDE	25.0	14.12		ug/Kg		56	51 - 149	11	28
4,4'-DDT	25.0	15.20		ug/Kg		61	39 - 152	11	31
Aldrin	25.0	14.02		ug/Kg		56	52 - 138	8	30
alpha-BHC	25.0	14.98		ug/Kg		60	51 - 140	4	29
alpha-Chlordane	25.0	13.93		ug/Kg		56	53 - 141	11	28
beta-BHC	25.0	14.72		ug/Kg		59	53 - 141	5	29
delta-BHC	25.0	13.44		ug/Kg		54	20 - 132	5	40
Dieldrin	25.0	14.33		ug/Kg		57	52 - 144	10	28
Endosulfan I	25.0	13.74		ug/Kg		55	49 - 139	11	28
Endosulfan II	25.0	14.14		ug/Kg		57	51 - 150	10	29
Endosulfan sulfate	25.0	14.18		ug/Kg		57	45 - 139	9	30
Endrin	25.0	14.09		ug/Kg		56	53 - 151	11	29
Endrin aldehyde	25.0	14.42		ug/Kg		58	31 - 146	9	40
Endrin ketone	25.0	14.92		ug/Kg		60	51 - 150	8	30
gamma-Chlordane	25.0	13.21		ug/Kg		53	46 - 156	11	39
gamma-BHC (Lindane)	25.0	15.19		ug/Kg		61	53 - 141	4	29
Heptachlor	25.0	14.33		ug/Kg		57	52 - 144	7	29
Heptachlor epoxide	25.0	13.85		ug/Kg		55	54 - 141	9	29
Methoxychlor	25.0	15.99		ug/Kg		64	47 - 148	6	29

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Tetrachloro-m-xylene (Surr)	72		38 - 148
DCB Decachlorobiphenyl (Surr)	76		37 - 151

Lab Sample ID: MB 570-484567/1-A

Matrix: Solid

Analysis Batch: 485230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 484567

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
4,4'-DDE	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
4,4'-DDT	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Aldrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
alpha-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
alpha-Chlordane	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
beta-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
delta-BHC	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Dieldrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Endosulfan I	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Endosulfan II	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Endosulfan sulfate	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Endrin	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Endrin aldehyde	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Endrin ketone	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
gamma-Chlordane	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
gamma-BHC (Lindane)	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Heptachlor	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1

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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 570-484567/1-A

Matrix: Solid

Analysis Batch: 485230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 484567

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Methoxychlor	ND		5.0	ug/Kg		09/25/24 09:17	09/27/24 00:15	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	77		38 - 148			09/25/24 09:17	09/27/24 00:15	1
DCB Decachlorobiphenyl (Surr)	78		37 - 151			09/25/24 09:17	09/27/24 00:15	1

Lab Sample ID: LCS 570-484567/2-A

Matrix: Solid

Analysis Batch: 485230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 484567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	25.0	16.15		ug/Kg		65	54 - 154
4,4'-DDE	25.0	15.98		ug/Kg		64	51 - 149
4,4'-DDT	25.0	16.21		ug/Kg		65	39 - 152
Aldrin	25.0	15.83		ug/Kg		63	52 - 138
alpha-BHC	25.0	16.18		ug/Kg		65	51 - 140
alpha-Chlordane	25.0	15.96		ug/Kg		64	53 - 141
beta-BHC	25.0	16.27		ug/Kg		65	53 - 141
delta-BHC	25.0	14.53		ug/Kg		58	20 - 132
Dieldrin	25.0	16.05		ug/Kg		64	52 - 144
Endosulfan I	25.0	15.76		ug/Kg		63	49 - 139
Endosulfan II	25.0	15.44		ug/Kg		62	51 - 150
Endosulfan sulfate	25.0	15.39		ug/Kg		62	45 - 139
Endrin	25.0	15.82		ug/Kg		63	53 - 151
Endrin aldehyde	25.0	16.11		ug/Kg		64	31 - 146
Endrin ketone	25.0	15.63		ug/Kg		63	51 - 150
gamma-Chlordane	25.0	15.80		ug/Kg		63	46 - 156
gamma-BHC (Lindane)	25.0	16.49		ug/Kg		66	53 - 141
Heptachlor	25.0	15.85		ug/Kg		63	52 - 144
Heptachlor epoxide	25.0	15.75		ug/Kg		63	54 - 141
Methoxychlor	25.0	15.65		ug/Kg		63	47 - 148
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Tetrachloro-m-xylene (Surr)	76		38 - 148				
DCB Decachlorobiphenyl (Surr)	77		37 - 151				

Lab Sample ID: LCSD 570-484567/3-A

Matrix: Solid

Analysis Batch: 485230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 484567

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
4,4'-DDD	25.0	16.00		ug/Kg		64	54 - 154	1	30
4,4'-DDE	25.0	15.88		ug/Kg		64	51 - 149	1	28
4,4'-DDT	25.0	16.17		ug/Kg		65	39 - 152	0	31
Aldrin	25.0	15.70		ug/Kg		63	52 - 138	1	30
alpha-BHC	25.0	16.07		ug/Kg		64	51 - 140	1	29
alpha-Chlordane	25.0	15.93		ug/Kg		64	53 - 141	0	28

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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 570-484567/3-A

Matrix: Solid

Analysis Batch: 485230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 484567

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
beta-BHC	25.0	16.00		ug/Kg		64	53 - 141	2	29
delta-BHC	25.0	14.45		ug/Kg		58	20 - 132	0	40
Dieldrin	25.0	16.08		ug/Kg		64	52 - 144	0	28
Endosulfan I	25.0	15.65		ug/Kg		63	49 - 139	1	28
Endosulfan II	25.0	15.31		ug/Kg		61	51 - 150	1	29
Endosulfan sulfate	25.0	15.31		ug/Kg		61	45 - 139	0	30
Endrin	25.0	15.81		ug/Kg		63	53 - 151	0	29
Endrin aldehyde	25.0	15.86		ug/Kg		63	31 - 146	2	40
Endrin ketone	25.0	15.54		ug/Kg		62	51 - 150	1	30
gamma-Chlordane	25.0	15.70		ug/Kg		63	46 - 156	1	39
gamma-BHC (Lindane)	25.0	16.46		ug/Kg		66	53 - 141	0	29
Heptachlor	25.0	15.81		ug/Kg		63	52 - 144	0	29
Heptachlor epoxide	25.0	15.69		ug/Kg		63	54 - 141	0	29
Methoxychlor	25.0	15.39		ug/Kg		62	47 - 148	2	29

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene (Surr)	74		38 - 148
DCB Decachlorobiphenyl (Surr)	76		37 - 151

Lab Sample ID: 570-199661-11 MS

Matrix: Solid

Analysis Batch: 485303

Client Sample ID: T243738-11

Prep Type: Total/NA

Prep Batch: 484567

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		25.0	10.91		ug/Kg		44	27 - 144
4,4'-DDE	ND		25.0	14.57		ug/Kg		45	28 - 141
4,4'-DDT	ND		25.0	10.00		ug/Kg		40	10 - 154
Aldrin	ND		25.0	11.18		ug/Kg		45	26 - 125
alpha-BHC	ND		25.0	9.988		ug/Kg		40	24 - 125
alpha-Chlordane	ND		25.0	10.63		ug/Kg		43	17 - 144
beta-BHC	ND		25.0	11.24		ug/Kg		45	28 - 125
delta-BHC	ND		25.0	6.517		ug/Kg		26	10 - 125
Dieldrin	ND		25.0	10.85		ug/Kg		43	19 - 145
Endosulfan I	ND		25.0	10.58		ug/Kg		42	25 - 125
Endosulfan II	ND		25.0	10.11		ug/Kg		40	13 - 142
Endosulfan sulfate	ND		25.0	6.992		ug/Kg		28	14 - 126
Endrin	ND		25.0	10.44		ug/Kg		42	28 - 139
Endrin aldehyde	ND		25.0	9.501		ug/Kg		38	12 - 125
Endrin ketone	ND		25.0	8.697		ug/Kg		35	20 - 132
gamma-Chlordane	ND		25.0	9.293	p	ug/Kg		37	10 - 160
gamma-BHC (Lindane)	ND		25.0	10.68		ug/Kg		43	24 - 125
Heptachlor	ND		25.0	11.12		ug/Kg		45	19 - 127
Heptachlor epoxide	ND		25.0	10.58		ug/Kg		42	33 - 123
Methoxychlor	ND		25.0	10.50		ug/Kg		42	19 - 128

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene (Surr)	52		38 - 148
DCB Decachlorobiphenyl (Surr)	50		37 - 151

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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: 570-199661-11 MSD

Matrix: Solid

Analysis Batch: 485303

Client Sample ID: T243738-11

Prep Type: Total/NA

Prep Batch: 484567

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		25.0	12.48		ug/Kg		50	27 - 144	13	40
4,4'-DDE	ND		25.0	15.90		ug/Kg		51	28 - 141	9	32
4,4'-DDT	ND		25.0	11.51		ug/Kg		46	10 - 154	14	40
Aldrin	ND		25.0	12.51		ug/Kg		50	26 - 125	11	40
alpha-BHC	ND		25.0	12.06		ug/Kg		48	24 - 125	19	40
alpha-Chlordane	ND		25.0	11.37		ug/Kg		46	17 - 144	7	40
beta-BHC	ND		25.0	12.99		ug/Kg		52	28 - 125	14	39
delta-BHC	ND		25.0	7.421		ug/Kg		30	10 - 125	17	40
Dieldrin	ND		25.0	12.83		ug/Kg		51	19 - 145	17	39
Endosulfan I	ND		25.0	11.71		ug/Kg		47	25 - 125	10	39
Endosulfan II	ND		25.0	11.94		ug/Kg		48	13 - 142	17	40
Endosulfan sulfate	ND		25.0	7.738		ug/Kg		31	14 - 126	10	38
Endrin	ND		25.0	12.09		ug/Kg		48	28 - 139	15	40
Endrin aldehyde	ND		25.0	11.20		ug/Kg		45	12 - 125	16	40
Endrin ketone	ND		25.0	9.760		ug/Kg		39	20 - 132	16	40
gamma-Chlordane	ND		25.0	11.31		ug/Kg		45	10 - 160	25	40
gamma-BHC (Lindane)	ND		25.0	13.95		ug/Kg		56	24 - 125	27	40
Heptachlor	ND		25.0	12.07		ug/Kg		48	19 - 127	8	40
Heptachlor epoxide	ND		25.0	13.49		ug/Kg		54	33 - 123	24	34
Methoxychlor	ND		25.0	11.12		ug/Kg		45	19 - 128	6	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene (Surr)	63		38 - 148
DCB Decachlorobiphenyl (Surr)	53		37 - 151

QC Association Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

GC Semi VOA

Prep Batch: 482797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-199661-1	T243738-01	Total/NA	Solid	3546	
570-199661-2	T243738-02	Total/NA	Solid	3546	
570-199661-3	T243738-03	Total/NA	Solid	3546	
570-199661-4	T243738-04	Total/NA	Solid	3546	
570-199661-5	T243738-05	Total/NA	Solid	3546	
570-199661-6	T243738-06	Total/NA	Solid	3546	
570-199661-7	T243738-07	Total/NA	Solid	3546	
570-199661-8	T243738-08	Total/NA	Solid	3546	
570-199661-9	T243738-09	Total/NA	Solid	3546	
570-199661-10	T243738-10	Total/NA	Solid	3546	
MB 570-482797/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-482797/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-482797/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 482803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-199661-12	T243738-12	Total/NA	Solid	3546	
570-199661-13	T243738-13	Total/NA	Solid	3546	
570-199661-14	T243738-14	Total/NA	Solid	3546	
570-199661-15	T243738-15	Total/NA	Solid	3546	
570-199661-17	T243738-17	Total/NA	Solid	3546	
570-199661-18	T243738-35	Total/NA	Solid	3546	
570-199661-19	T243738-36	Total/NA	Solid	3546	
MB 570-482803/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-482803/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-482803/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 483550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-482797/1-A	Method Blank	Total/NA	Solid	8081A	482797
LCS 570-482797/2-A	Lab Control Sample	Total/NA	Solid	8081A	482797
LCSD 570-482797/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	482797

Analysis Batch: 483577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-482803/1-A	Method Blank	Total/NA	Solid	8081A	482803
LCS 570-482803/2-A	Lab Control Sample	Total/NA	Solid	8081A	482803
LCSD 570-482803/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	482803

Analysis Batch: 483606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-199661-1	T243738-01	Total/NA	Solid	8081A	482797
570-199661-2	T243738-02	Total/NA	Solid	8081A	482797
570-199661-3	T243738-03	Total/NA	Solid	8081A	482797
570-199661-4	T243738-04	Total/NA	Solid	8081A	482797
570-199661-5	T243738-05	Total/NA	Solid	8081A	482797
570-199661-6	T243738-06	Total/NA	Solid	8081A	482797
570-199661-7	T243738-07	Total/NA	Solid	8081A	482797
570-199661-8	T243738-08	Total/NA	Solid	8081A	482797
570-199661-9	T243738-09	Total/NA	Solid	8081A	482797
570-199661-10	T243738-10	Total/NA	Solid	8081A	482797

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QC Association Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

GC Semi VOA

Analysis Batch: 484024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-199661-12	T243738-12	Total/NA	Solid	8081A	482803
570-199661-13	T243738-13	Total/NA	Solid	8081A	482803
570-199661-14	T243738-14	Total/NA	Solid	8081A	482803
570-199661-15	T243738-15	Total/NA	Solid	8081A	482803
570-199661-17	T243738-17	Total/NA	Solid	8081A	482803
570-199661-18	T243738-35	Total/NA	Solid	8081A	482803
570-199661-19	T243738-36	Total/NA	Solid	8081A	482803

Prep Batch: 484567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-199661-11	T243738-11	Total/NA	Solid	3546	
570-199661-16	T243738-16	Total/NA	Solid	3546	
MB 570-484567/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-484567/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-484567/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-199661-11 MS	T243738-11	Total/NA	Solid	3546	
570-199661-11 MSD	T243738-11	Total/NA	Solid	3546	

Analysis Batch: 485230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-484567/1-A	Method Blank	Total/NA	Solid	8081A	484567
LCS 570-484567/2-A	Lab Control Sample	Total/NA	Solid	8081A	484567
LCSD 570-484567/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	484567

Analysis Batch: 485303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-199661-11	T243738-11	Total/NA	Solid	8081A	484567
570-199661-16	T243738-16	Total/NA	Solid	8081A	484567
570-199661-11 MS	T243738-11	Total/NA	Solid	8081A	484567
570-199661-11 MSD	T243738-11	Total/NA	Solid	8081A	484567

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Client Sample ID: T243738-01

Lab Sample ID: 570-199661-1

Date Collected: 09/13/24 09:41

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.12 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 14:22	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-02

Lab Sample ID: 570-199661-2

Date Collected: 09/13/24 09:36

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.14 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 22:04	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-03

Lab Sample ID: 570-199661-3

Date Collected: 09/13/24 09:29

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.00 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 22:18	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-04

Lab Sample ID: 570-199661-4

Date Collected: 09/13/24 09:18

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.01 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 15:05	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-05

Lab Sample ID: 570-199661-5

Date Collected: 09/13/24 10:43

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.05 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 15:19	N5Y3	EET CAL 4
Instrument ID: GC52A										

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Client Sample ID: T243738-06

Lab Sample ID: 570-199661-6

Date Collected: 09/13/24 10:37

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.00 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 15:33	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-07

Lab Sample ID: 570-199661-7

Date Collected: 09/13/24 10:31

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.19 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 15:47	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-08

Lab Sample ID: 570-199661-8

Date Collected: 09/13/24 10:24

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.20 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 16:01	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-09

Lab Sample ID: 570-199661-9

Date Collected: 09/13/24 12:14

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.13 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 16:15	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-10

Lab Sample ID: 570-199661-10

Date Collected: 09/13/24 12:05

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.14 g	10 mL	482797	09/19/24 17:13	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	483606	09/23/24 16:30	N5Y3	EET CAL 4
Instrument ID: GC52A										

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Client Sample ID: T243738-11

Lab Sample ID: 570-199661-11

Date Collected: 09/13/24 11:57

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.01 g	10 mL	484567	09/25/24 09:17	FTE6	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	485303	09/27/24 11:25	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-12

Lab Sample ID: 570-199661-12

Date Collected: 09/13/24 11:49

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.10 g	10 mL	482803	09/19/24 17:31	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	484024	09/24/24 13:45	N5Y3	EET CAL 4
Instrument ID: GC54A										

Client Sample ID: T243738-13

Lab Sample ID: 570-199661-13

Date Collected: 09/13/24 13:42

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.15 g	10 mL	482803	09/19/24 17:31	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	484024	09/24/24 14:00	N5Y3	EET CAL 4
Instrument ID: GC54A										

Client Sample ID: T243738-14

Lab Sample ID: 570-199661-14

Date Collected: 09/13/24 13:37

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.10 g	10 mL	482803	09/19/24 17:31	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	484024	09/24/24 14:15	N5Y3	EET CAL 4
Instrument ID: GC54A										

Client Sample ID: T243738-15

Lab Sample ID: 570-199661-15

Date Collected: 09/13/24 13:24

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.08 g	10 mL	482803	09/19/24 17:31	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	484024	09/24/24 14:31	N5Y3	EET CAL 4
Instrument ID: GC54A										

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Client Sample ID: T243738-16

Lab Sample ID: 570-199661-16

Date Collected: 09/13/24 13:09

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.03 g	10 mL	484567	09/25/24 09:17	FTE6	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	485303	09/27/24 11:39	N5Y3	EET CAL 4
Instrument ID: GC52A										

Client Sample ID: T243738-17

Lab Sample ID: 570-199661-17

Date Collected: 09/13/24 14:30

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.17 g	10 mL	482803	09/19/24 17:31	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	484024	09/24/24 15:01	N5Y3	EET CAL 4
Instrument ID: GC54A										

Client Sample ID: T243738-35

Lab Sample ID: 570-199661-18

Date Collected: 09/13/24 10:43

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.28 g	10 mL	482803	09/19/24 17:31	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	484024	09/24/24 15:16	N5Y3	EET CAL 4
Instrument ID: GC54A										

Client Sample ID: T243738-36

Lab Sample ID: 570-199661-19

Date Collected: 09/13/24 13:09

Matrix: Solid

Date Received: 09/19/24 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.29 g	10 mL	482803	09/19/24 17:31	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	484024	09/24/24 15:32	N5Y3	EET CAL 4
Instrument ID: GC54A										

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Method	Method Description	Protocol	Laboratory
8081A	Organochlorine Pesticides (GC)	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: SunStar Laboratories Inc
Project/Site: T243738

Job ID: 570-199661-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-199661-1	T243738-01	7 C ₁₀ H ₈	09/13/24 09:41	09/19/24 12:57
570-199661-2	T243738-02	Solid	09/13/24 09:36	09/19/24 12:57
570-199661-3	T243738-03	Solid	09/13/24 09:29	09/19/24 12:57
570-199661-4	T243738-04	Solid	09/13/24 09:18	09/19/24 12:57
570-199661-5	T243738-05	Solid	09/13/24 10:43	09/19/24 12:57
570-199661-6	T243738-06	Solid	09/13/24 10:37	09/19/24 12:57
570-199661-7	T243738-07	Solid	09/13/24 10:31	09/19/24 12:57
570-199661-8	T243738-08	Solid	09/13/24 10:24	09/19/24 12:57
570-199661-9	T243738-09	Solid	09/13/24 12:14	09/19/24 12:57
570-199661-10	T243738-10	Solid	09/13/24 12:05	09/19/24 12:57
570-199661-11	T243738-11	Solid	09/13/24 11:57	09/19/24 12:57
570-199661-12	T243738-12	Solid	09/13/24 11:49	09/19/24 12:57
570-199661-13	T243738-13	Solid	09/13/24 13:42	09/19/24 12:57
570-199661-14	T243738-14	Solid	09/13/24 13:37	09/19/24 12:57
570-199661-15	T243738-15	Solid	09/13/24 13:24	09/19/24 12:57
570-199661-16	T243738-16	Solid	09/13/24 13:09	09/19/24 12:57
570-199661-17	T243738-17	Solid	09/13/24 14:30	09/19/24 12:57
570-199661-18	T243738-35	Solid	09/13/24 10:43	09/19/24 12:57
570-199661-19	T243738-36	Solid	09/13/24 13:09	09/19/24 12:57



570-199661 Chain of Custody

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T243738

Loc: 570
199661

SENDING LABORATORY:

SunStar Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone: (949) 297-5020
Fax: (949) 297-5027
Project Manager: Jeff Lee

RECEIVING LABORATORY:

Eurofins Calscience (Tustin)
2841 Dow Ave, Suite 100
Tustin, CA 92780
Phone : (949) 261-1022
Fax: N/A

5 Day Rush

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T243738-01	Soil	Sampled:09/13/24 09:41	1	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 09:41		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-02	Soil	Sampled:09/13/24 09:36	2	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 09:36		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-03	Soil	Sampled:09/13/24 09:29	3	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 09:29		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-04	Soil	Sampled:09/13/24 09:18	4	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 09:18		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-05	Soil	Sampled:09/13/24 10:43	5	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 10:43		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-06	Soil	Sampled:09/13/24 10:37	6	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 10:37		8081 Pesticide Normal TAT
Containers Supplied:				

Released By: [Signature] Date: 9/19/24 12:57 Received By: [Signature] Date: 9-19-24 1257

Released By: _____ Date: _____ Received By: _____ Date: _____

MS/ATR

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T243738

5 Day Rush

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T243738-07	Soil	Sampled:09/13/24 10:31	7	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 10:31		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-08	Soil	Sampled:09/13/24 10:24	8	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 10:24		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-09	Soil	Sampled:09/13/24 12:14	9	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 12:14		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-10	Soil	Sampled:09/13/24 12:05	10	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 12:05		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-11	Soil	Sampled:09/13/24 11:57	11	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 11:57		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-12	Soil	Sampled:09/13/24 11:49	12	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 11:49		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-13	Soil	Sampled:09/13/24 13:42	13	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 13:42		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-14	Soil	Sampled:09/13/24 13:37	14	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 13:37		8081 Pesticide Normal TAT
Containers Supplied:				

Released By Paul Brown Date 9/19/24 12:57 Received By [Signature] Date 9.19-24 1257

Released By _____ Date _____ Received By _____ Date _____

W30/42TR

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T243738

5 Day Rush

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T243738-15	Soil	Sampled:09/13/24 13:24	15	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 13:24		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-16	Soil	Sampled:09/13/24 13:09	16	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 13:09		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-17	Soil	Sampled:09/13/24 14:30	17	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 14:30		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-35	Soil	Sampled:09/13/24 10:43	18	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 10:43		8081 Pesticide Normal TAT
Containers Supplied:				
Sample ID: T243738-36	Soil	Sampled:09/13/24 13:09	19	4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	09/27/24 13:09		8081 Pesticide Normal TAT
Containers Supplied:				

Released By	<u>Pat Dunn</u>	Date	<u>9/19/24 12:57</u>	Received By	<u>[Signature]</u>	Date	<u>9-19-24 1257</u>
Released By		Date		Received By		Date	

4FS, 11 QTR

Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-199661-1

Login Number: 199661

List Source: Eurofins Calscience

List Number: 1

Creator: Vitente, Precy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

WORK ORDER

T243738

Client: Krazan, Clovis

Project Manager: Jeff Lee

Project: 014-24129 Lekkerkerker

Project Number: [none]

Report To:

Krazan, Clovis
Mike Bowery
215 West Dakota Avenue
Clovis, CA 93612

Date Due: 09/24/24 17:00 (5 day TAT)

Received By: Dave Berner

Date Received: 09/17/24 11:35

Logged In By: Angel Aguirre

Date Logged In: 09/17/24 12:14

Samples Received at: **2.9°C**
Custody Seals No Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confirmed No

Analysis	Due	TAT	Expires	Comments
T243738-01 CS1 [Soil] Sampled 09/13/24 09:41 (GMT-08:00) Pacific Time (US & 8081 Pesticides	09/24/24 15:00	5	09/27/24 09:41	4:1 COMPOSITE
T243738-02 CS2 [Soil] Sampled 09/13/24 09:36 (GMT-08:00) Pacific Time (US & 8081 Pesticides	09/24/24 15:00	5	09/27/24 09:36	4:1 COMPOSITE
T243738-03 CS3 [Soil] Sampled 09/13/24 09:29 (GMT-08:00) Pacific Time (US & 8081 Pesticides	09/24/24 15:00	5	09/27/24 09:29	4:1 COMPOSITE
T243738-04 CS4 [Soil] Sampled 09/13/24 09:18 (GMT-08:00) Pacific Time (US & 8081 Pesticides	09/24/24 15:00	5	09/27/24 09:18	4:1 COMPOSITE
T243738-05 CS5 [Soil] Sampled 09/13/24 10:43 (GMT-08:00) Pacific Time (US & 8081 Pesticides	09/24/24 15:00	5	09/27/24 10:43	4:1 COMPOSITE
T243738-06 CS6 [Soil] Sampled 09/13/24 10:37 (GMT-08:00) Pacific Time (US & 8081 Pesticides	09/24/24 15:00	5	09/27/24 10:37	4:1 COMPOSITE
T243738-07 CS7 [Soil] Sampled 09/13/24 10:31 (GMT-08:00) Pacific Time (US & 8081 Pesticides	09/24/24 15:00	5	09/27/24 10:31	4:1 COMPOSITE

WORK ORDER

T243738

Client: Krazan, Clovis	Project Manager: Jeff Lee
Project: 014-24129 Lekkerkerker	Project Number: [none]

Analysis	Due	TAT	Expires	Comments
T243738-08 CS8 [Soil] Sampled 09/13/24 10:24 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 10:24	
T243738-09 CS9 [Soil] Sampled 09/13/24 12:14 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 12:14	
T243738-10 CS10 [Soil] Sampled 09/13/24 12:05 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 12:05	
T243738-11 CS11 [Soil] Sampled 09/13/24 11:57 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 11:57	
T243738-12 CS12 [Soil] Sampled 09/13/24 11:49 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 11:49	
T243738-13 CS13 [Soil] Sampled 09/13/24 13:42 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 13:42	
T243738-14 CS14 [Soil] Sampled 09/13/24 13:37 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 13:37	
T243738-15 CS15 [Soil] Sampled 09/13/24 13:24 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 13:24	
T243738-16 CS16 [Soil] Sampled 09/13/24 13:09 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 13:09	
T243738-17 CS17 [Soil] Sampled 09/13/24 14:30 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 14:30	
T243738-18 D1 [Soil] Sampled 09/13/24 09:41 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 09:41	Arsenic Only

WORK ORDER

T243738

Client: Krazan, Clovis	Project Manager: Jeff Lee
Project: 014-24129 Lekkerkerker	Project Number: [none]

Analysis	Due	TAT	Expires	Comments
T243738-19 D2 [Soil] Sampled 09/13/24 09:36 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 09:36	Arsenic Only
T243738-20 D3 [Soil] Sampled 09/13/24 09:29 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 09:29	Arsenic Only
T243738-21 D4 [Soil] Sampled 09/13/24 09:18 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 09:18	Arsenic Only
T243738-22 D5 [Soil] Sampled 09/13/24 10:43 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 10:43	Arsenic Only
T243738-23 D6 [Soil] Sampled 09/13/24 10:37 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 10:37	Arsenic Only
T243738-24 D7 [Soil] Sampled 09/13/24 10:31 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 10:31	Arsenic Only
T243738-25 D8 [Soil] Sampled 09/13/24 10:24 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 10:24	Arsenic Only
T243738-26 D9 [Soil] Sampled 09/13/24 12:14 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 12:14	Arsenic Only
T243738-27 D10 [Soil] Sampled 09/13/24 12:05 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 12:05	Arsenic Only
T243738-28 D11 [Soil] Sampled 09/13/24 11:57 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 11:57	Arsenic Only
T243738-29 D12 [Soil] Sampled 09/13/24 11:49 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 11:49	Arsenic Only
T243738-30 D13 [Soil] Sampled 09/13/24 13:42 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 13:42	Arsenic Only
T243738-31 D14 [Soil] Sampled 09/13/24 13:37 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 13:37	Arsenic Only

WORK ORDER

T243738

Client: Krazan, Clovis

Project Manager: Jeff Lee

Project: 014-24129 Lekkerkerker

Project Number: [none]

Analysis	Due	TAT	Expires	Comments
T243738-32 D15 [Soil] Sampled 09/13/24 13:24 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 13:24	Arsenic Only
T243738-33 D16 [Soil] Sampled 09/13/24 13:09 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 13:09	Arsenic Only
T243738-34 D17 [Soil] Sampled 09/13/24 14:30 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 14:30	Arsenic Only
T243738-35 CS5-DUP [Soil] Sampled 09/13/24 10:43 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 10:43	
T243738-36 CS16-DUP [Soil] Sampled 09/13/24 13:09 (GMT-08:00) Pacific Time (US &				4:1 COMPOSITE
8081 Pesticides	09/24/24 15:00	5	09/27/24 13:09	
T243738-37 D5 [Soil] Sampled 09/13/24 10:43 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 10:43	Arsenic Only
T243738-38 D16 [Soil] Sampled 09/13/24 13:09 (GMT-08:00) Pacific Time (US &				
6020 Metals by ICP-MS	09/24/24 15:00	5	01/11/25 13:09	Arsenic Only

Appendix G

Transportation Impact Study

Lekkerkerker Residential Development

Transportation Impact Study October 2024

Prepared for:
4Creeks, Inc.

Prepared by:
VRPA Technologies, Inc.
4630 W. Jennifer, Suite 105
Fresno, CA 93722



Lekkerkerker Residential Development Transportation Impact Study

Study Team

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-

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1.0 Introduction

1.1 Description of the Region/Project

This Transportation Impact Study (TIS) has been prepared for the purpose of analyzing traffic conditions related to the proposed Lekkerkerker Residential Development (Project) in the City of Tulare. The Project proposes to develop 228 single-family dwelling units which is consistent with the City of Tulare General Plan. The Project is located on approximately 57.31 acres at the northeast corner of Paige Avenue and Pratt Street (APNs 174030009 and 174030010). Figures 1-1 and 1-2 show the location of the Project along with major roadways in the Project area. The Project site plan is provided in Figure 1-3.

1.1.1 Project Access

Site access will be provided at two Project Driveways along Pratt Street just north of Paige Avenue and two intersections (driveways) along E Street.

1.1.2 Study Area

The following intersections and roadway segments included in this TIS were determined in consultation with City of Tulare staff and include:

Intersections

1. Bardsley Avenue and E Street
2. Paige Avenue and Pratt Street
3. Paige Avenue and K Street

Roadway Segments

- ✓ Paige Avenue between:
 - Pratt Street and I Street

1.1.3 Study Scenarios

This TIS includes level of service (LOS) analysis for the following traffic scenarios (Study Scenarios):

- ✓ Existing Conditions
- ✓ Opening Year (2024) Without Project Conditions
- ✓ Opening Year (2024) Plus Project Conditions
- ✓ 5-Year Horizon Without Project Conditions
- ✓ 5-Year Horizon Plus Project Conditions

1.2 Methodology

When preparing this TIS, guidelines set by the City of Tulare were followed. In analyzing street and intersection capacities, LOS methodologies from the latest edition of the Highway Capacity Manual (HCM) were applied. The City of Tulare LOS standards were applied to quantitatively assess the performance of study area intersections and roadway segments. In addition, safety concerns were considered when determining the need for appropriate mitigation resulting from increased traffic near sensitive uses.

1.2.1 Intersection Analysis

Intersection LOS analysis was conducted using the Synchro 12 software program. Synchro 12 supports HCM 6th Edition methodologies and is an acceptable program by City of Tulare staff for assessment of traffic impacts. Levels of Service can be determined for both signalized and unsignalized intersections. Two of the study intersections are currently signalized (Bardsley Avenue at E Street and Paige Avenue at K Street) while one intersection is currently unsignalized (Paige Avenue at Pratt Street – All-Way Stop).

Tables 1-1 and 1-2 indicate the ranges in the amounts of average delay for a vehicle at signalized and unsignalized intersections for the various levels of service ranging from LOS “A” to “F”.

When an unsignalized intersection does not meet acceptable LOS standards, the investigation of the need for a traffic signal shall be evaluated. The California Manual on Uniform Traffic Control Devices for Streets and Highways (California MUTCD) introduces standards for determining the need for traffic signals. The California MUTCD indicates that the satisfaction of one or more traffic signal warrants does not in itself require the installation of a traffic signal. In addition to the warrant analysis, an engineering study of the current or expected traffic conditions should be conducted to determine whether the installation of a traffic signal is justified.

1.2.2 Roadway Segment Analysis

According to the HCM, LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities do have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. A roadway segment is defined as a stretch of roadway generally located between signalized or controlled intersections.

Segment LOS is important in order to understand whether the capacity of a roadway can accommodate future traffic volumes. Table 1-3 provides a definition of segment LOS. The performance criteria used for evaluating volumes and capacities on the road and highway system for this study were estimated using the Federal Highway Administrations’ (FHWA) *Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System*, October

2017. The tables in Appendix A of FHWA's *Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System* consider the capacity of individual road and highway segments. Street segment capacity was determined using information shown in Table 1-4 based on the Level of Service Tables included in Appendix A.

1.2.3 Queuing Analysis

Queuing analysis was performed at study intersections utilizing the Synchro 12 software program. This software aligns with the methodologies outlined in the Highway Capacity Manual (HCM) 6th Edition. Synchro provides queuing results in feet for signalized intersections while the 95th percentile queue for unsignalized intersections are expressed in number of vehicles.

1.3 Policies to Maintain Level of Service

An important goal is to maintain an acceptable level of service along the highway, street, and road network. To accomplish this, the City of Tulare adopted minimum levels of service to control congestion that may result as new development occurs.

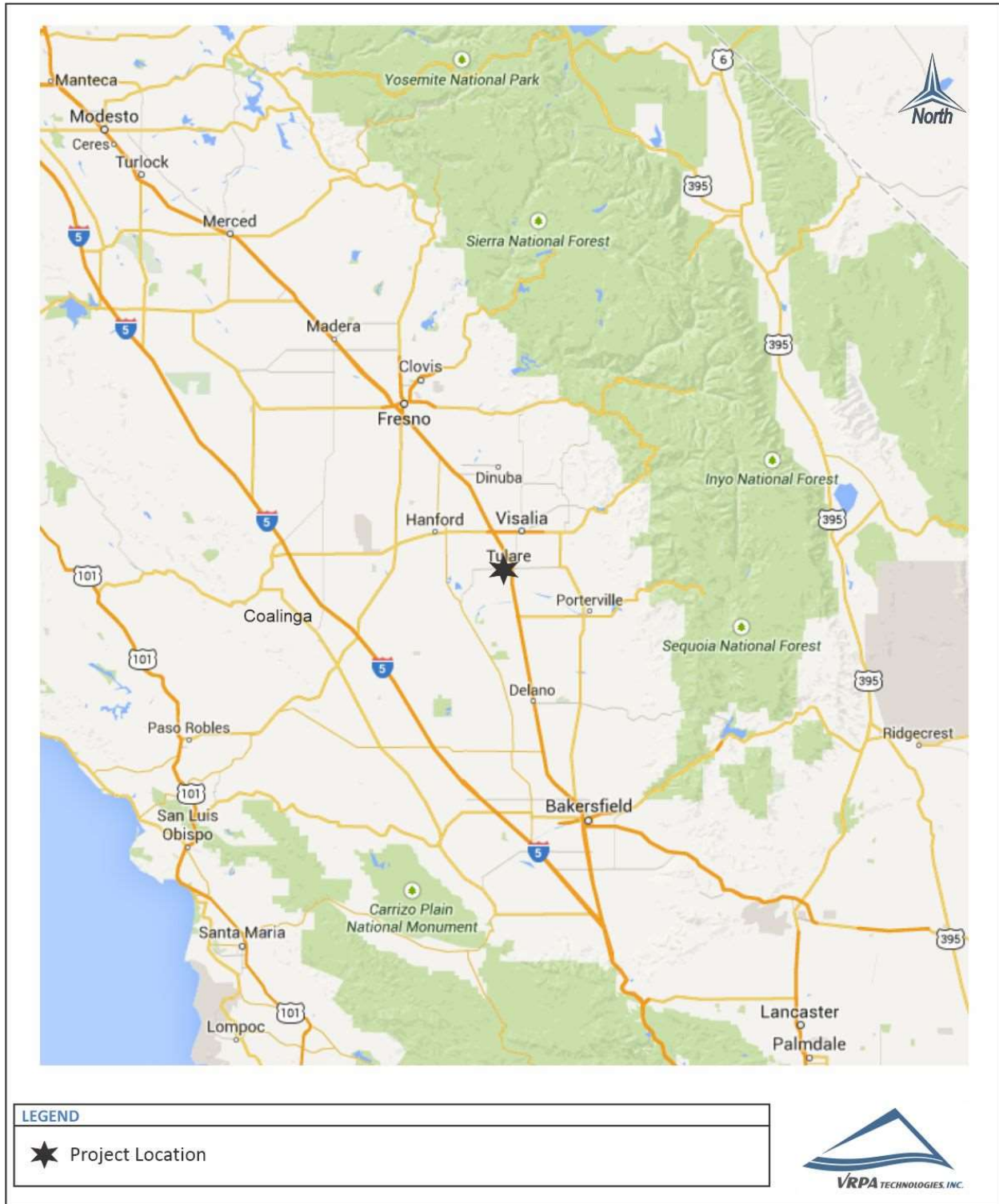
The City of Tulare's General Plan, adopted October 7, 2014, identifies a LOS 'D' throughout the local circulation network according to Policy TR-P2.3.

1.4 VMT Analysis

Senate Bill 743 (SB 743) went into effect throughout California on July 1, 2020. This legislation changed the performance measure for CEQA transportation studies from level of service to vehicle miles traveled (VMT). An assessment of potential VMT impacts associated with the Project is provided in Chapter 3.

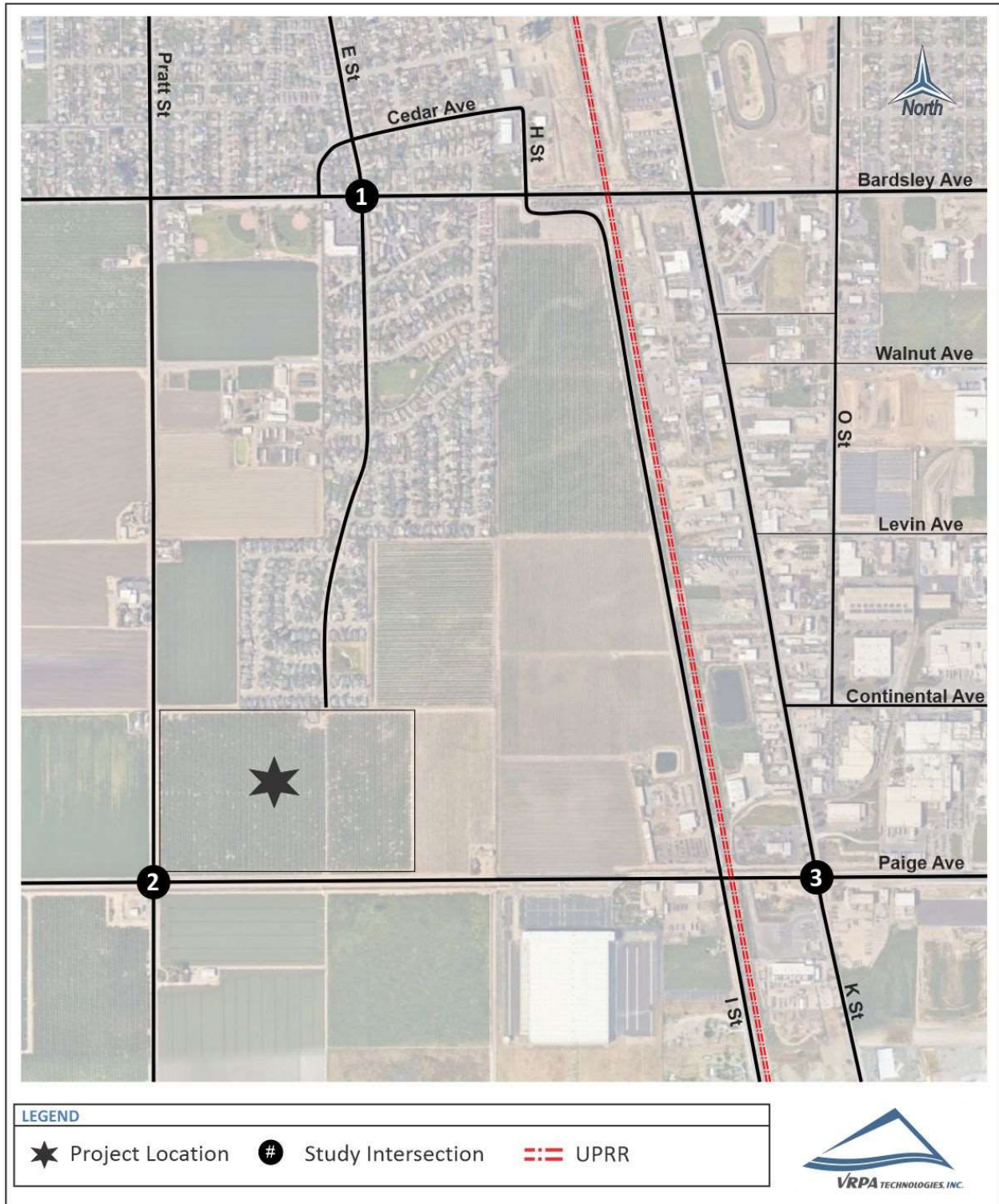
Lekkerkerker Residential Development
Regional Location

Figure
1-1



Lekkerkerker Residential Development
Project Location

Figure
1-2



Lekkerkerker Residential Development
Project Site Plan

Figure
1-3

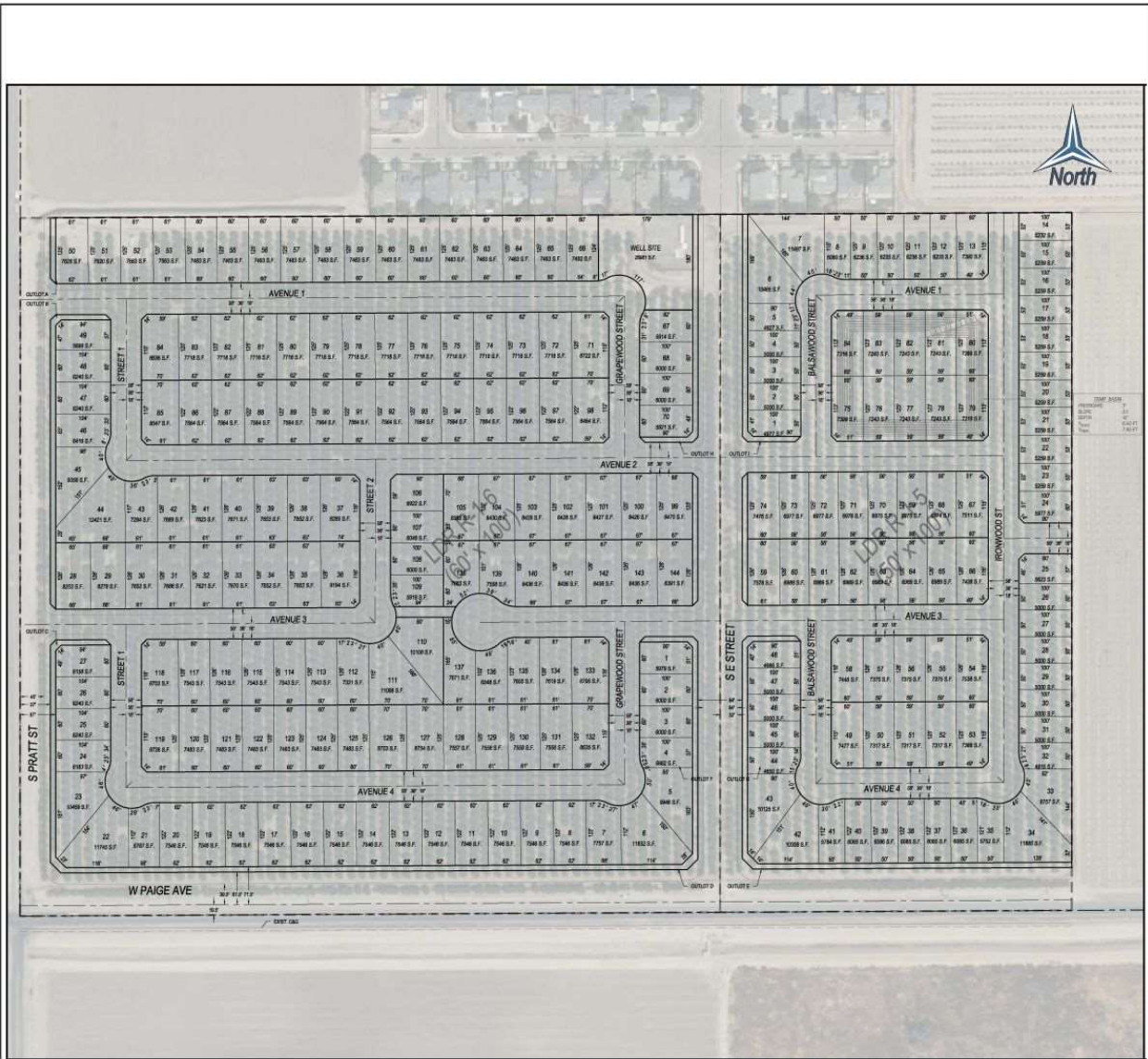


Image Source: 4Creeks

Table 1-1
Signalized Intersections Level of Service Definitions
(Highway Capacity Manual)

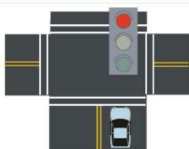
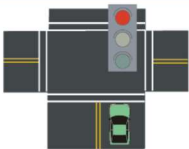
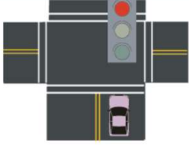
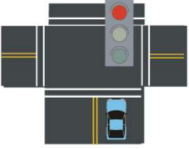
LEVEL OF SERVICE	DEFINITION		AVERAGE TOTAL DELAY (sec/veh)
A	Describes operations with very low delay. This level of service occurs when there is no conflicting traffic for a minor street.		≤ 10.0
B	Describes operations with moderately low delay. This level generally occurs with a small amount of conflicting traffic causing higher levels of average delay.		> 10.0 - 20.0
C	Describes operations with average delays. These higher delays may result from a moderate amount of minor street traffic. Queues begin to get longer.		> 20.0 - 35.0
D	Describes a crowded operation, with below average delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from shorter gaps on the mainline and an increase of minor street traffic. The queues of vehicles are increasing.		> 35.0 - 55.0
E	Describes operations at or near capacity. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor gaps for the minor street to cross and large queues.		> 55.0 - 80.0
F	Describes operations that are at the failure point. This level, considered to be unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of the intersection. Insufficient gaps of suitable size exist to allow minor traffic to cross the intersection safely.		> 80.0

Table 1-2
Unsignalized Intersections Level of Service Definitions
(Highway Capacity Manual)

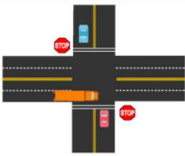
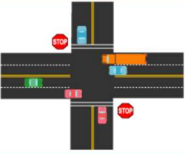
LEVEL OF SERVICE	DEFINITION		AVERAGE TOTAL DELAY (sec/veh)
A	No delay for stop-controlled approaches.		0 - 10.0
B	Describes operations with minor delay.		> 10.0 - 15.0
C	Describes operations with moderate delays.		> 15.0 - 25.0
D	Describes operations with some delays.		> 25.0 - 35.0
E	Describes operations with high delays and long queues.		> 35.0 - 50.0
F	Describes operations with extreme congestion, with very high delays and long queues unacceptable to most drivers.		> 50.0

Table 1-3
Roadway Segment
Level of Service Definitions
(Highway Capacity Manual)







LEVEL OF SERVICE	DEFINITION	
A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.	
B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.	
C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with other vehicles in the traffic stream.	
D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.	
E	Represents operating conditions at or near the level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.	
F	Is used to define forced or breakdown flow (stop-and-go gridlock). This condition exists when the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within the queues are characterized by stop and go waves, and they are extremely unstable.	

Table 1-4
AADT Segment Volume Thresholds

Level of Service						
Lanes	Median	A	B	C	D	E
ARTERIAL						
2	Undivided	N/A	5,200	8,500	9,800	10,900

FHWA - Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System

N/A- LOS is not achievable because of the type of facility

2.0 Existing Conditions

2.1 Existing Traffic Counts and Roadway Geometrics

The first step toward assessing Project traffic impacts is to assess existing traffic conditions. Existing AM and PM peak hour turning movements were collected at each study intersection by National Data and Surveying Services. Intersection turning movement counts were conducted for the peak hour periods of 7:00-9:00 AM and 4:00-6:00 PM for study intersections on Tuesday, August 20, 2024. A 24-hour segment count (Paige Avenue between Pratt Street and I Street) was also collected on August 20, 2024. Traffic count data worksheets are provided in Appendix B. The day on which counts were taken is representative of typical traffic volumes within the study area. Schools were in session and the weather was mild.

2.2 Existing Functional Roadway Classification System

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and highways do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads.

The current hierarchical system of roadways in the City of Tulare consists of the following seven (7) basic classifications:

- ✓ **State Freeways and Highways** – Freeways and highways provide for high volume, high speed, and interregional travel with limited local access via widely spaced interchanges (1-mile minimum). Freeway access is limited to designated interchanges; no direct access to adjacent land uses is permitted for any use.
- ✓ **Expressways** – Expressways are highways that carry large volumes of traffic relatively long distances within or through an urban or rural area. They also often serve considerable local traffic traveling short distances. Intersections along these expressways can be at grade to accommodate traffic entering and exiting the roadway. Expressways should be continuous through the urban or rural community they serve and link to arterial routes. The designated right-of-way for expressways varies dependent upon the needs of the specific facility. Additional right-of-way may be required at some intersection.
- ✓ **Arterials (Major Arterials and Arterials)** – Arterials are intended to: (a) provide a high level of capacity in selected high volume corridors; (b) provide connections between the freeway system and arterials and collector streets via interchanges; and (c) provide access to major traffic generators. Arterials are moderate-speed through streets with average daily traffic over 10,000 vehicles per day. Access to an arterial should be primarily accomplished through primary collector and secondary collector streets. Limited direct access to industrial, commercial, and high-density residential uses is permitted as approved through site plan

review. Paige Avenue and Pratt Street are classified as Major Arterials in the study area. Bardsley Avenue and E Street are classified as Minor Arterials.

- ✓ **Industrial Collector Streets** – Industrial collector streets are intended to transfer truck traffic in industrial and heavy commercial areas to an arterial. Average daily traffic on a primary collector will usually average less than 10,000 vehicles per day. Direct access for commercial and industrial uses and developments should be permitted consistent with adopted improvement standards.
- ✓ **Primary Collector Streets** – Primary collector streets are intended to transfer traffic from collector and minor streets to an arterial. Average daily traffic on a primary collector will usually average less than 10,000 vehicles per day. Primary collector streets should provide direct linkages to neighborhood shopping areas. Primary collector intersections should be staggered to discourage their use as through access ways by-passing arterials. Direct access for low density residential, commercial, and industrial uses and developments should be permitted consistent with adopted improvement standards.
- ✓ **Secondary Collector Streets** – Secondary collector streets are intended to carry moderate volumes of traffic from local streets to primary collectors and arterials. Average daily traffic on a secondary collector normally averages 500-4,000 vehicles per day. Direct access should be permitted consistent with approved standards. Secondary collector streets are not delineated on the Circulation Diagram; instead they are located through the development and subdivision approval process.
- ✓ **Local Streets** – Local streets are intended as low capacity streets primarily serving low-density residential uses. Average daily traffic on a local street averages less than 1,000 vehicles per day, although most local streets average less than 500 vehicles per day. Direct access to local streets is permitted consistent with adopted improvement standards. Local streets are not delineated on the Circulation Diagram; instead, they are designated through the development and subdivision approval process.

2.3 Affected Streets and Highways

Street and highway intersections and segments near and adjacent to the Project site were analyzed to determine levels of service utilizing HCM-based methodologies described previously. The study intersections and street and highway segments included in this TIS are listed below.

Intersections

1. Bardsley Avenue and E Street
2. Paige Avenue and Pratt Street
3. Paige Avenue and K Street

Roadway Segments

- ✓ Paige Avenue between:
 - Pratt Street and I Street

The existing lane geometry at study area intersections is shown in Figure 2-1. Two of the study intersections are currently signalized (Bardsley Avenue at E Street and Paige Avenue at K Street) while one intersection is currently unsignalized (Paige Avenue at Pratt Street – All-Way Stop). Figures 2-2 and 2-3 show existing traffic volumes for the AM and PM peak hours in the study area.

2.4 Level of Service

2.4.1 Intersection Capacity Analysis

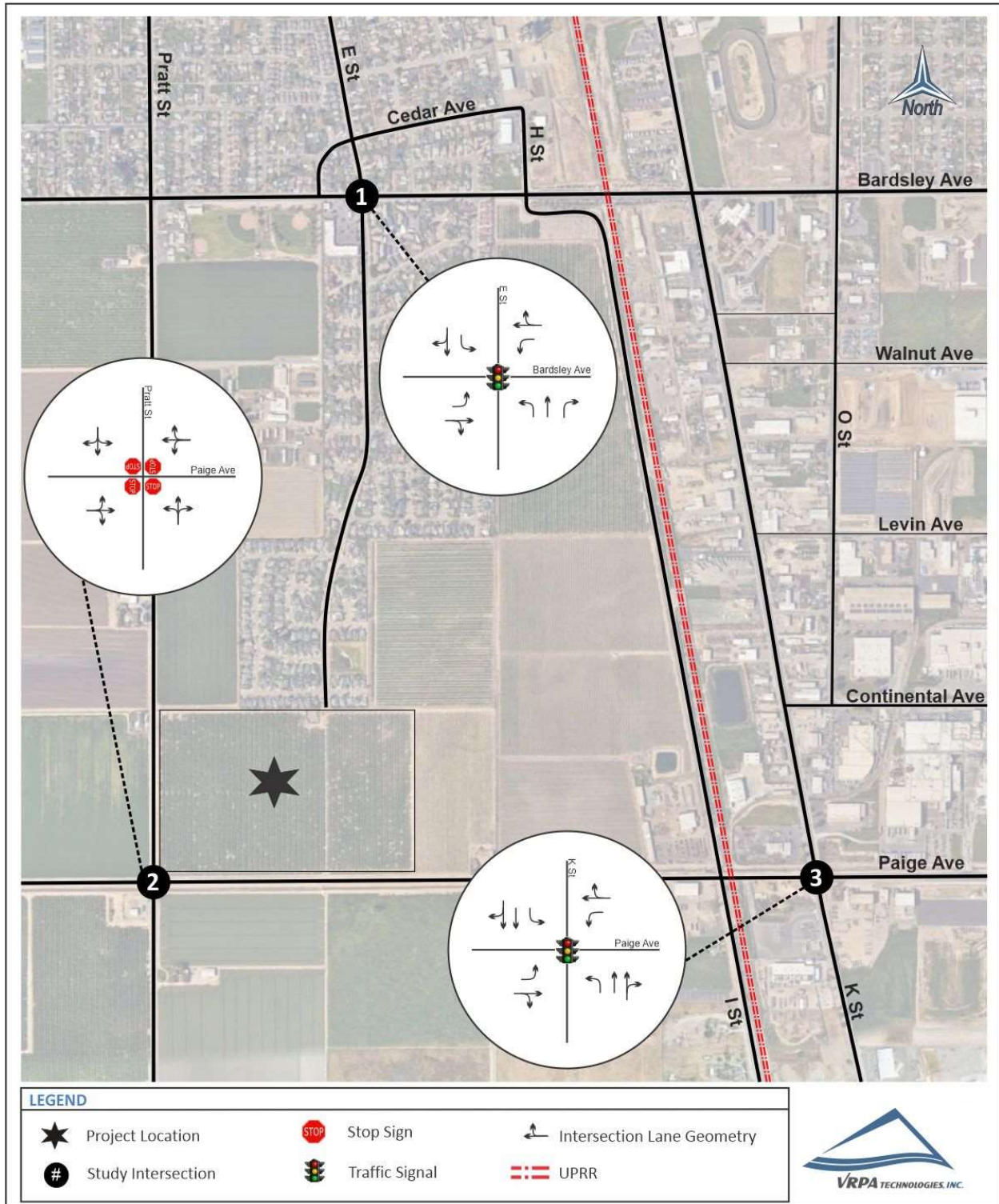
All intersection LOS analyses were estimated using Synchro 12 Software. Various roadway geometrics, traffic volumes, and properties (peak hour factors, storage pocket length, etc) were input into the Synchro 12 Software program to accurately determine the travel delay and LOS for each study scenario. The intersection LOS and delays reported represent the HCM 6th Edition outputs. Synchro assumptions, listed below, show the various Synchro inputs and methodologies used in the analysis.

- ✓ **Lane Geometry**
 - Storage lengths for turn lanes for existing intersections were obtained from aerial photos and rounded to the nearest 25 feet
 - VRPA conducted a field study of the specified intersections and segments to verify lane geometry and intersection control as well as to obtain other pertinent data.
- ✓ **Traffic Conditions**
 - Peak hour factors (PHF) for each intersection approach were obtained from the traffic counts discussed in Section 2.1 and were utilized for Existing, Opening Year, and 5-Year Horizon conditions. For all future scenarios, a PHF of 0.92 was applied unless the existing PHF was greater than 0.92. The value of 0.92 was used because it is the default value recommended in the HCM.
 - Heavy vehicle percentages were based on the HCM default.
 - Roadway link speed limits were observed in the field and input into the Synchro network to determine roadway link speeds.

Results of the analysis show that all of the study intersections currently operate at an LOS better than the City of Tulare LOS criteria. Table 2-1 shows the intersection LOS for the existing conditions. Synchro 12 (HCM 6th Edition) Worksheets are provided in Appendix C.

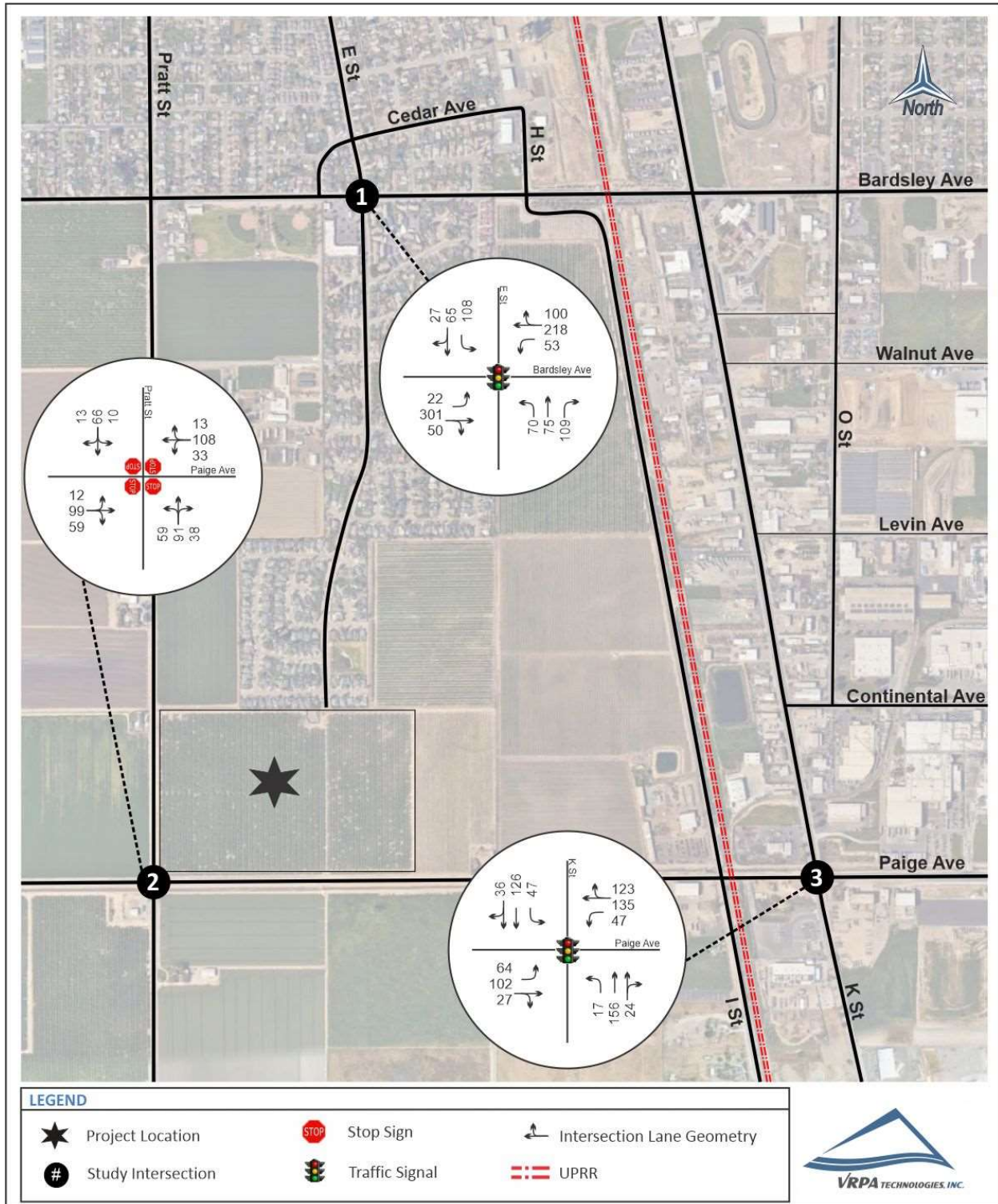
Lekkerkerker Residential Development
Existing Lane Geometry

Figure
2-1



Lekkerkerker Residential Development
Existing AM Peak Hour Traffic

Figure
2-2



Lekkerkerker Residential Development
Existing PM Peak Hour Traffic

Figure
2-3

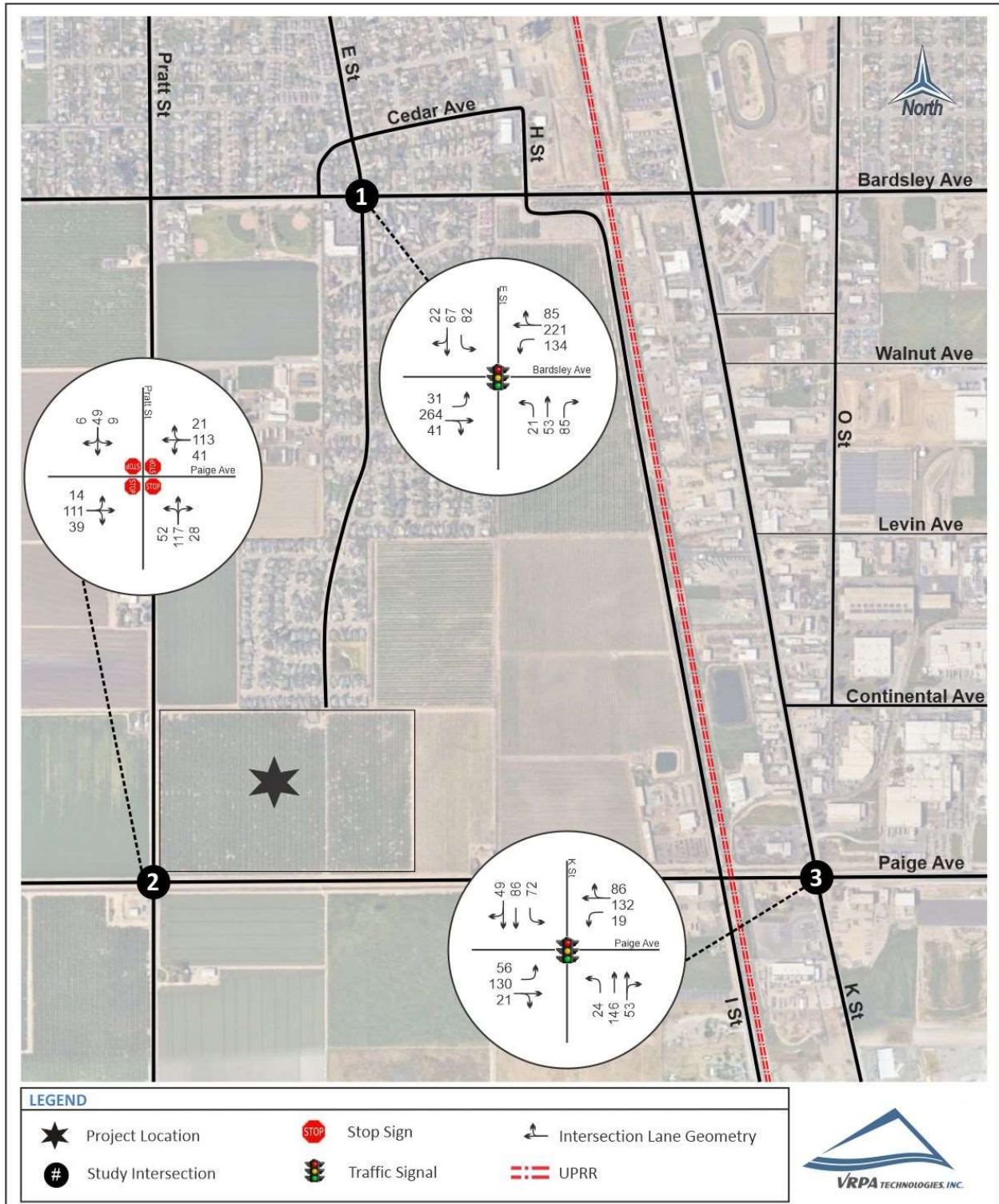


Table 2-1
Existing Intersection Operations

INTERSECTION		CONTROL	TARGET LOS	PEAK HOUR	EXISTING	
					DELAY	LOS
1	Bardsley Avenue and E Street	Signalized	D	AM	14.6	B
				PM	15.3	B
2	Paige Avenue and Pratt Street	Four-Way Stop	D	AM	9.8	A
				PM	10.0	A
3	Paige Avenue and K Street	Signalized	D	AM	23.1	C
				PM	23.2	C

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection.

2.4.2 Queuing Analysis

Table 2-2 provides a queue length summary for left and right turn lane approaches at study intersections. As shown in Table 2-2, existing PM peak hour traffic at the westbound left approach for the Bardsley Avenue and E Street intersection exceeds the existing 75-foot storage pocket.

2.4.3 Roadway Segment Capacity Analysis

Results of the Average Daily Traffic (ADT) LOS segment analysis along Paige Avenue is reflected in Table 2-3. The performance criteria used for evaluating volumes and capacities on the road system for this study were estimated using the Federal Highway Administrations' (FHWA) *Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System*, October 2017. Results of the analysis show that Paige Avenue between Pratt Street and I Street meet the City of Tulare's minimum acceptable level of service criteria.

2.5 Study Area Collision Analysis

The Transportation Injury Mapping System (TIMS) provided by University of California, Berkeley was used to evaluate traffic collisions in the study area. TIMS utilizes geocoded data provided by the Statewide Integrated Traffic Records System (SWITRS). SWITRS is a tool used by California Highway Patrol (CHP) and other Allied Agencies throughout California and includes various types of statistical reports and data. The database serves as a means to collect and process data gathered from a collision scene. Information from the TIMS database shows that approximately 20 injury accidents and 2 fatal accidents have occurred throughout the study area during the 5-year period between January 1st, 2019, and December 31st, 2023. A graphical representation of traffic collisions throughout the study area for the 5-year period reflected above is provided in Figure 2-4. More detailed collision data is provided in Appendix D. The Tulare County region had approximately 9,100 injury accidents and 371 fatal accidents over the same timeframe referenced above. Injury and fatal accidents in the study area represent 0.2% of incidents that occurred in the Tulare County Region. Vehicle/Pedestrian collisions represent 36% of the accidents in the study area while broadside collisions represent 32%. Unsafe Speed ranked as the highest primary crash factor at 23% of accidents in the study area. Driving or Bicycling Under the Influence of Alcohol or Drug was the second highest 'known' primary crash factor at 18%.

Table 2-2
Existing Queuing Operations

INTERSECTION		EXISTING QUEUE STORAGE LENGTH (ft)		EXISTING	
				AM Queue	PM Queue
1	Bardsley Avenue and E Street	NB Left	125	36	14
		NB Right	50	13	18
		SB Left	125	54	38
		EB Left	75	20	27
		WB Left	75	43	116
3	Paige Avenue and K Street	NB Left	150	31	38
		SB Left	150	61	84
		EB Left	100	70	69
		WB Left	100	61	32

Queue is measured in feet / **BOLD** denotes exceedance

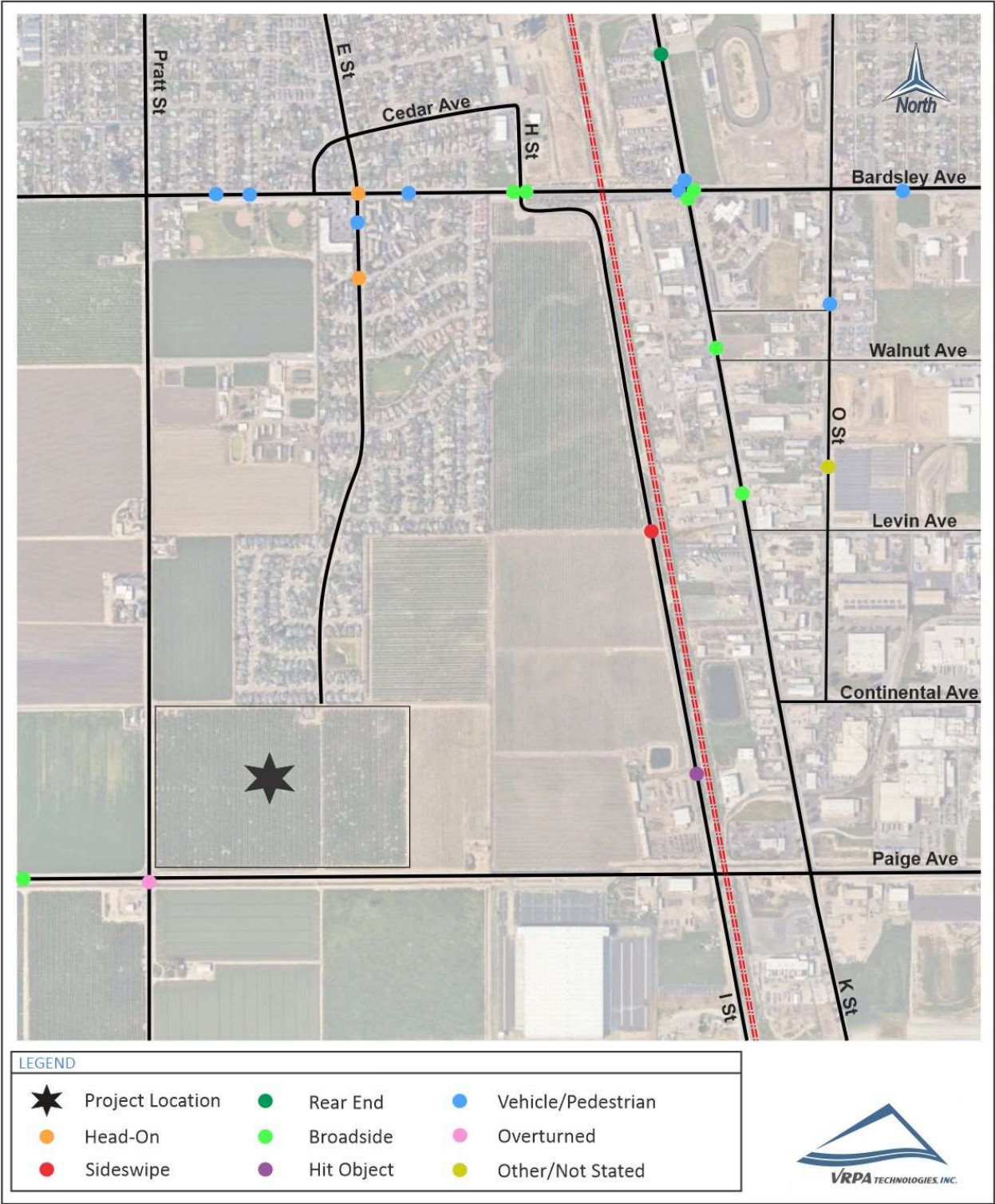
Table 2-3
Existing Segment Operations (ADT)

STREET SEGMENT	SEGMENT DESCRIPTION	ROADWAY FUNCTIONAL CLASSIFICATION	TARGET LOS	EXISTING	
				VOLUME	LOS
Paige Avenue					
Pratt Street and I Street	2 Lanes Undivided	Major Arterial	D	4,379	B

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

Lekkerkerker Residential Development
Study Area Collision Map (01/01/2019 - 12/31/2023)

Figure
2-4



3.0 Traffic Impacts

This chapter provides an assessment of traffic and the impact on the surrounding street system.

3.1 Trip Generation

To assess the impacts that the Project may have on the surrounding roadway network, the first step is to determine Project trip generation. Project trip generation was determined using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) and the ITE Trip Generation Handbook (3rd Edition). The considerations described above led to the recommended trip generation for weekday AM (7:00-9:00am) and PM (4:00-6:00pm) peak hours shown in Table 3-1.

Table 3-1
Project Trip Generation

LAND USE	ITE Land Use Code	Size (D.U.)	DAILY TRIP ENDS (ADT)		WEEKDAY AM PEAK HOUR					WEEKDAY PM PEAK HOUR				
			RATE	VOLUME	RATE	IN:OUT SPLIT	VOLUME			RATE	IN:OUT SPLIT	VOLUME		
							IN	OUT	TOTAL			IN	OUT	TOTAL
Single-Family Residential	210	228	9.43	2,150	0.70	25:75	39	119	158	0.70	63:37	136	80	216
TOTAL TRIP GENERATION				2,150			39	119	158			136	80	216

Source: Generation factors from ITE Trip Generation Manual, 11th Edition.
Trip ends are one-way traffic movements, entering or leaving.

3.2 Trip Distribution

Project trip distribution percentages for the Opening Year and 5-Year Horizon scenarios are shown in Figure 3-1. These percentages are based upon knowledge of the study area, engineering judgement, prevailing traffic patterns in the study area, major routes, population centers, and other existing development.

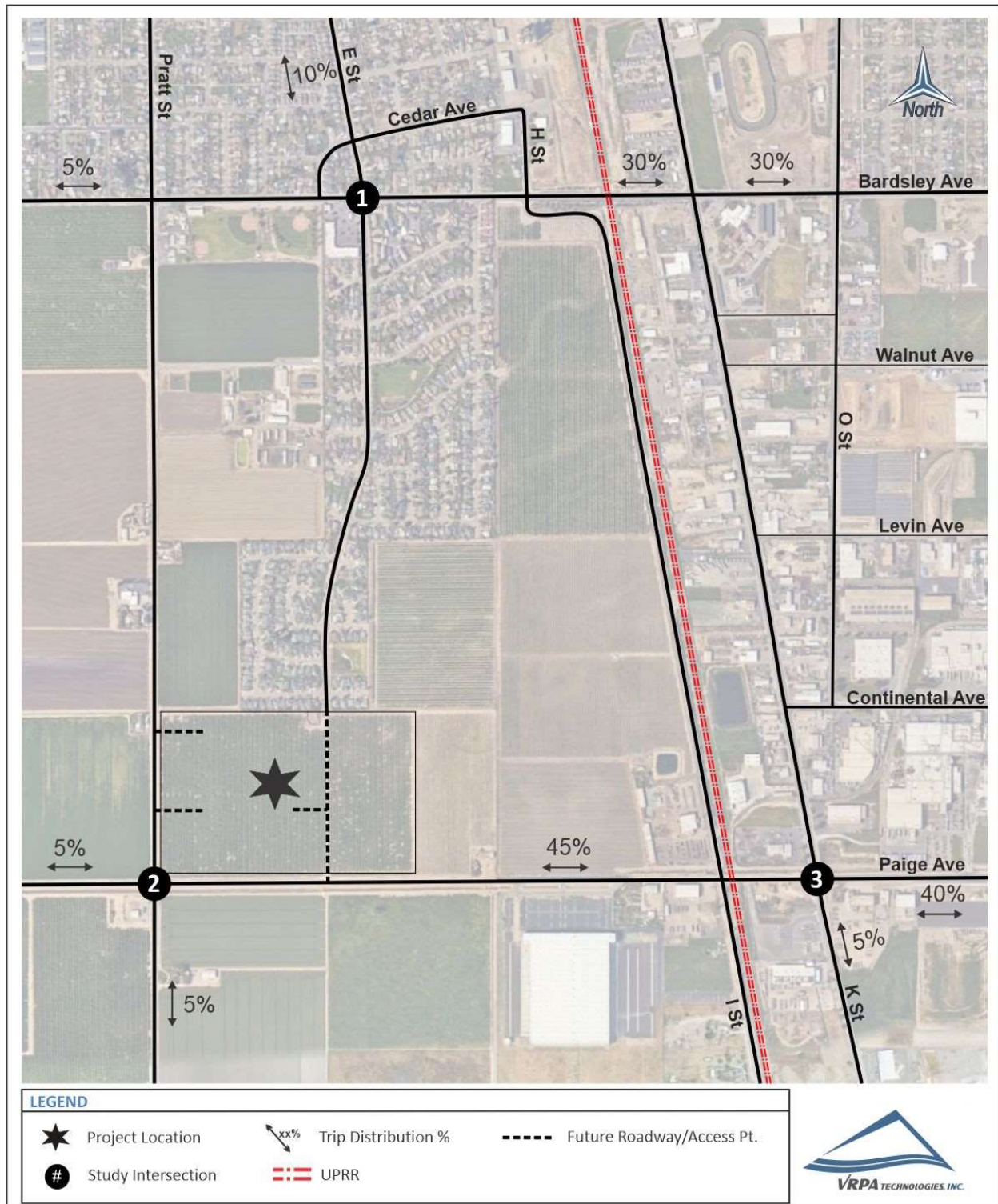
Site access will be provided at two Project Driveways along Pratt Street just north of Paige Avenue and two intersections (driveways) along E Street.

3.3 Project Traffic

Project traffic as shown in Table 3-1 was distributed to the roadway system using the trip distribution percentages shown in Figure 3-1. The graphical representation of the resulting AM and PM peak hour Project trips used is shown in Figures 3-2 and 3-3.

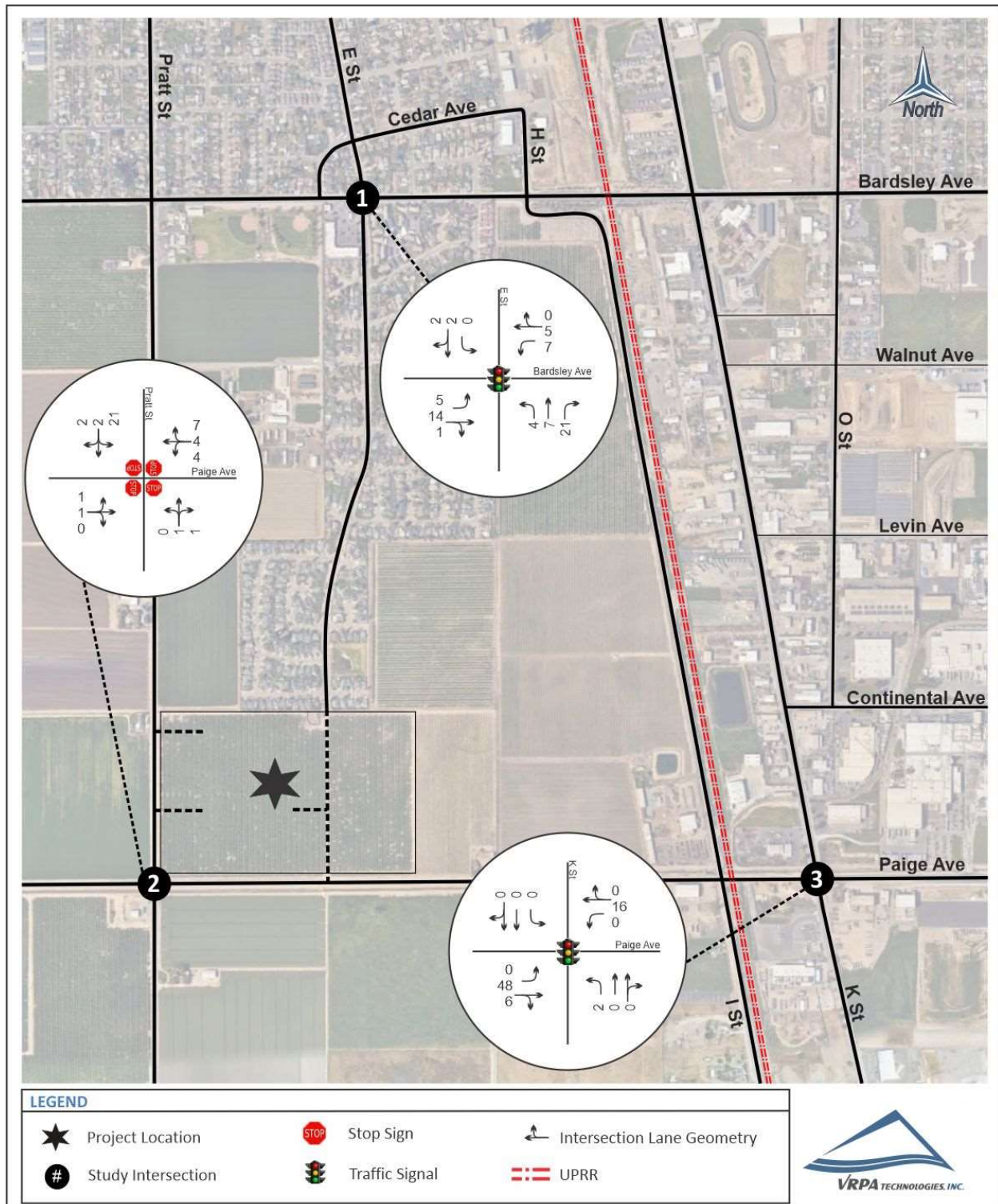
**Lekkerkerker Residential Development
Trip Distribution**

**Figure
3-1**



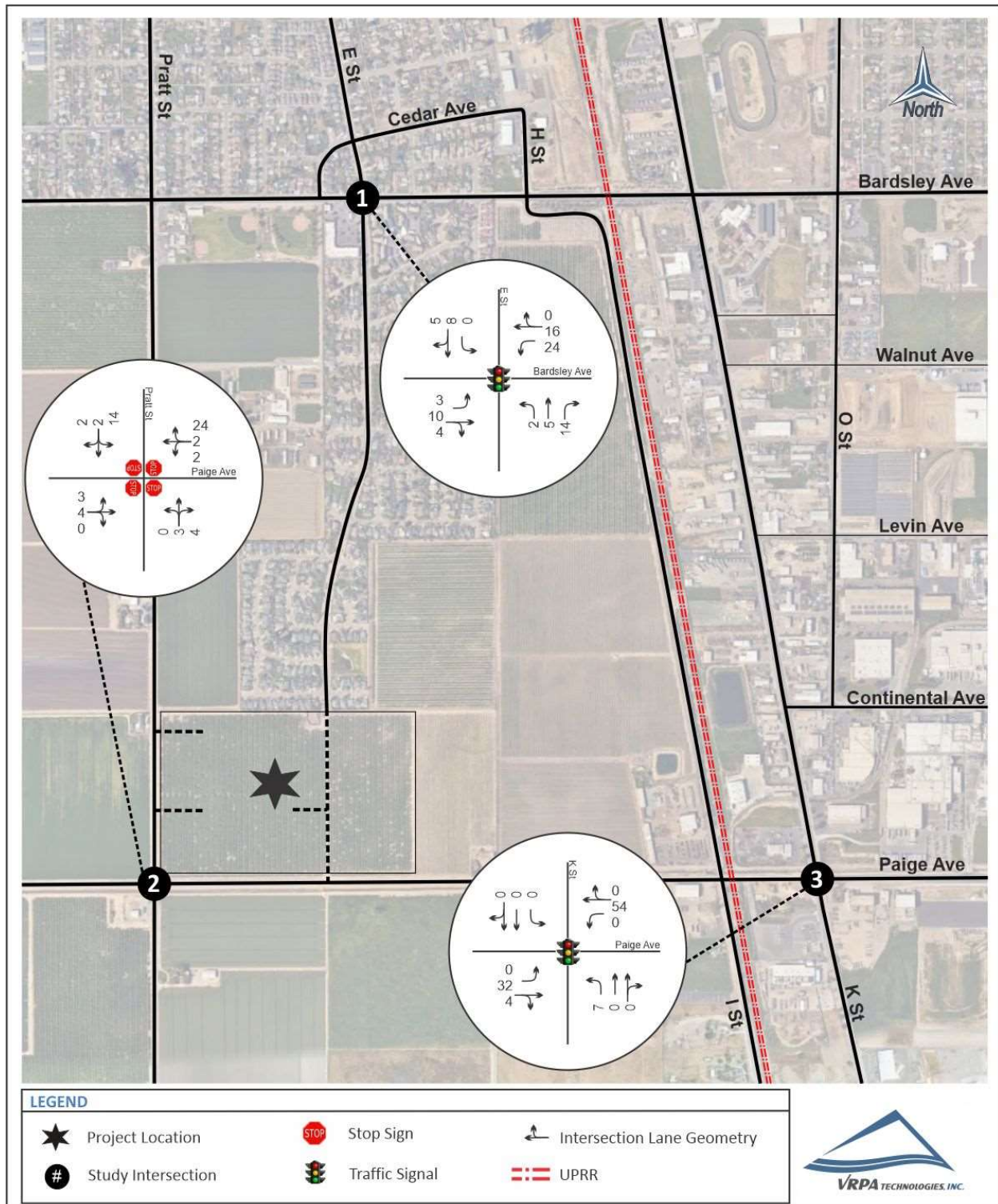
Lekkerkerker Residential Development
Project AM Peak Hour Traffic

Figure
3-2



Lekkerkerker Residential Development
Project PM Peak Hour Traffic

Figure
3-3



3.4 Approved/Pending Project Traffic

Traffic impact analyses typically require the analysis of approved or pending developments that have not yet been built in the vicinity of the Project. The Valov Residential Development, which is located in the vicinity of the proposed Project, will add new trips to the intersections and roadway segments being evaluated in this TIS. AM and PM peak hour trips included in the TIS for the Valov Residential Development were applied to the Opening Year and 5-Year Horizon scenarios discussed later in the report.

3.5 Opening Year Traffic Conditions

Traffic conditions with and without the Project in the Year 2024 were estimated by applying a growth rate of 2% per year to the existing traffic volumes which is consistent with the methodology provided in the Traffic Scoping Document prepared for the Project. In addition, AM and PM peak hour trips from the Valov Residential Development were manually added to study intersections. The resulting traffic for the Opening Year Without Project scenario is shown in Figures 3-4 and 3-5. Opening Year Plus Project traffic conditions are reflected in Figures 3-6 and 3-7.

3.6 5-Year Horizon Traffic Conditions

Traffic conditions with and without the Project in the Year 2029 (5 years after Opening conditions) were estimated by applying a growth rate of 2% per year to the existing traffic volumes which is consistent with the methodology provided in the Traffic Scoping Document prepared for the Project. In addition, AM and PM peak hour trips from the Valov Residential Development were manually added to study intersections. The resulting traffic for the 5-Year Horizon Without Project scenario is shown in Figures 3-8 and 3-9. 5-Year Horizon Plus Project traffic conditions are reflected in Figures 3-10 and 3-11.

3.7 Impacts

3.7.1 Intersection Capacity Analysis

Table 3-2 provides the intersection level of service analysis for the study intersections considering the study scenarios discussed above. Results of the analysis show that all of the study intersections will operate at an LOS better than the City of Tulare LOS criteria.

3.7.2 Queuing Analysis

Table 3-3 provides a queue length summary for left and right turn lane approaches at study intersections. The queue lengths presented in Table 3-3 represent the 95 percentile queue lengths for the respective lane movements based on the Synchro traffic signal timing program.

Results of the queuing analysis shows that traffic at the westbound left approach for the Bardsley Avenue and E Street intersection will exceed the existing 75-foot storage pocket during the PM peak hour for the Opening Year and 5-Year Horizon Year scenarios. Potential mitigation measures are discussed in Chapter 4 of this report.

3.7.3 Roadway Segment Capacity Analysis

Results of the Average Daily Traffic (ADT) LOS segment analysis along Paige Avenue is reflected in Table 3-4. Results of the analysis show that Paige Avenue between Pratt Street and I Street will meet the City of Tulare's minimum acceptable level of service criteria for the Opening Year and 5-Year Horizon Year scenarios.

Union Pacific Railroad Crossing

The Union Pacific Railroad (UPRR) intersects Paige Avenue less than 50 feet east of the Paige Avenue at I Street intersection. According to the United States Department of Transportation (U.S. DOT) Crossing Inventory Form, there were approximately fourteen (14) daily train movements in 2019. When a train is within around 1,000 feet of an at grade crossing, train engineers are required to sound the warning horn.

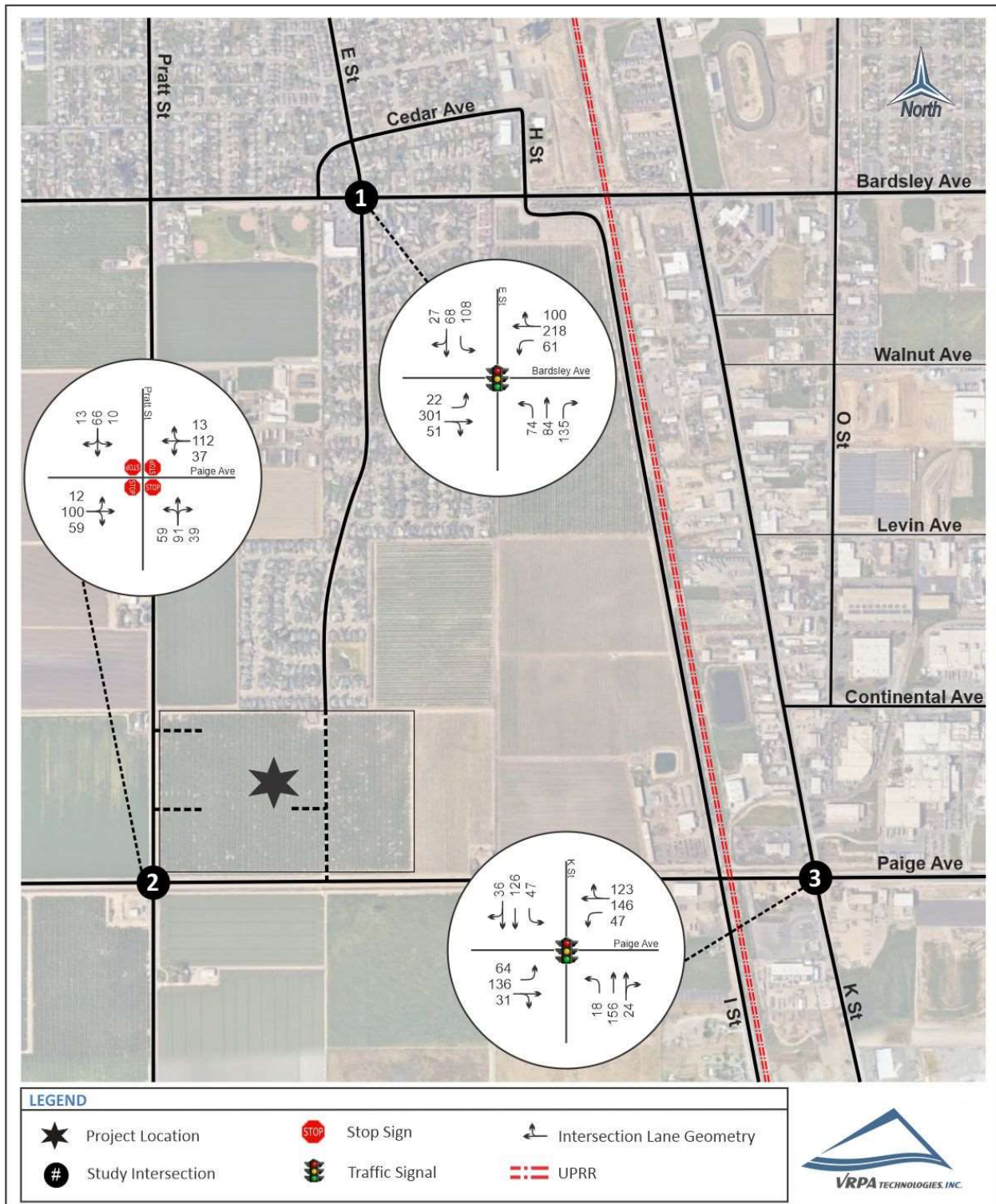
As noted above, Paige Avenue between Pratt Street and I Street will meet the City of Tulare's minimum acceptable level of service criteria for the Opening Year and 5-Year Horizon Year scenarios. As a result, congestion or excess delay in the study area would be minimal and would not impact UPRR operations at Paige Avenue. While level of service conditions along Paige Avenue and at adjacent study intersections meet the City of Tulare's level of service standard, improvements to the at grade crossing would be beneficial to residents and commercial/industrial uses in the study area. Potential improvements are discussed in Chapter 4 of this report.

3.8 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 guidance provided by the City of Tulare dated June 26, 2020. The project was screened out of requiring a VMT analysis due to being located in a low VMT area. Therefore the project has a less than significant VMT impact and no mitigation measures are required. Additional detail is provided in Appendix E.

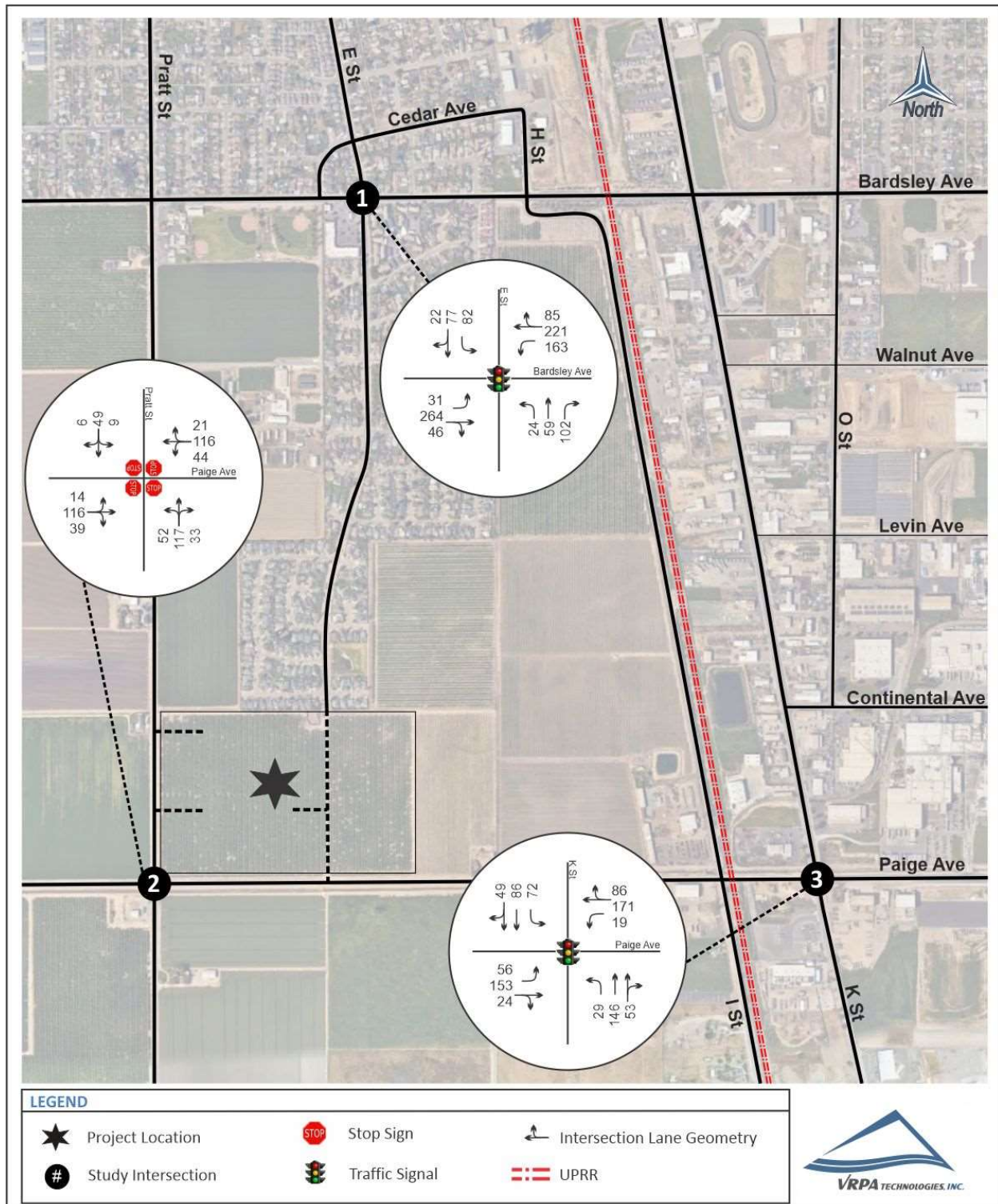
Lekkerkerker Residential Development
Opening Year 2024 Without Project AM Peak Hour Traffic

Figure
3-4



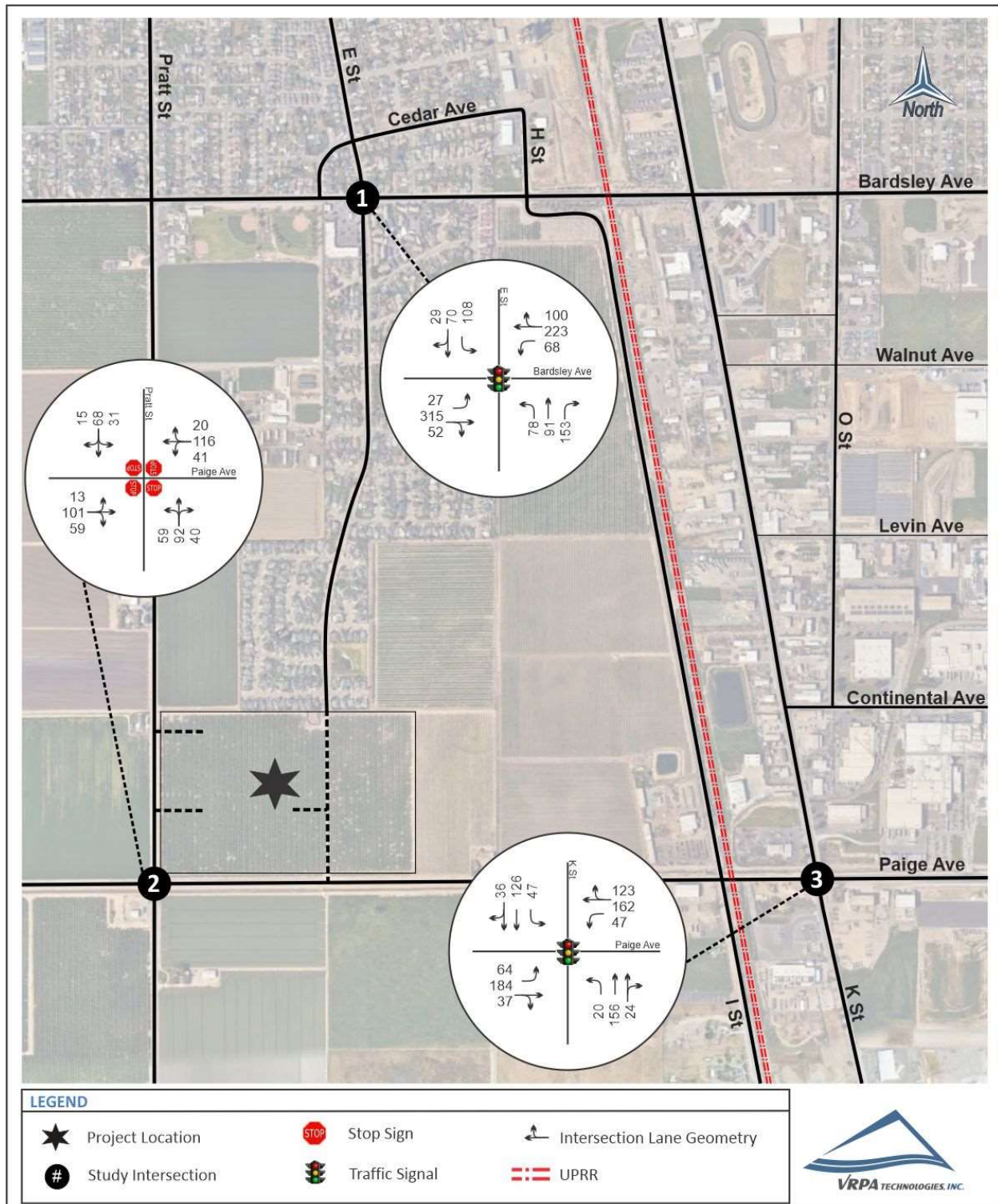
Lekkerkerker Residential Development
Opening Year 2024 Without Project PM Peak Hour Traffic

Figure
3-5



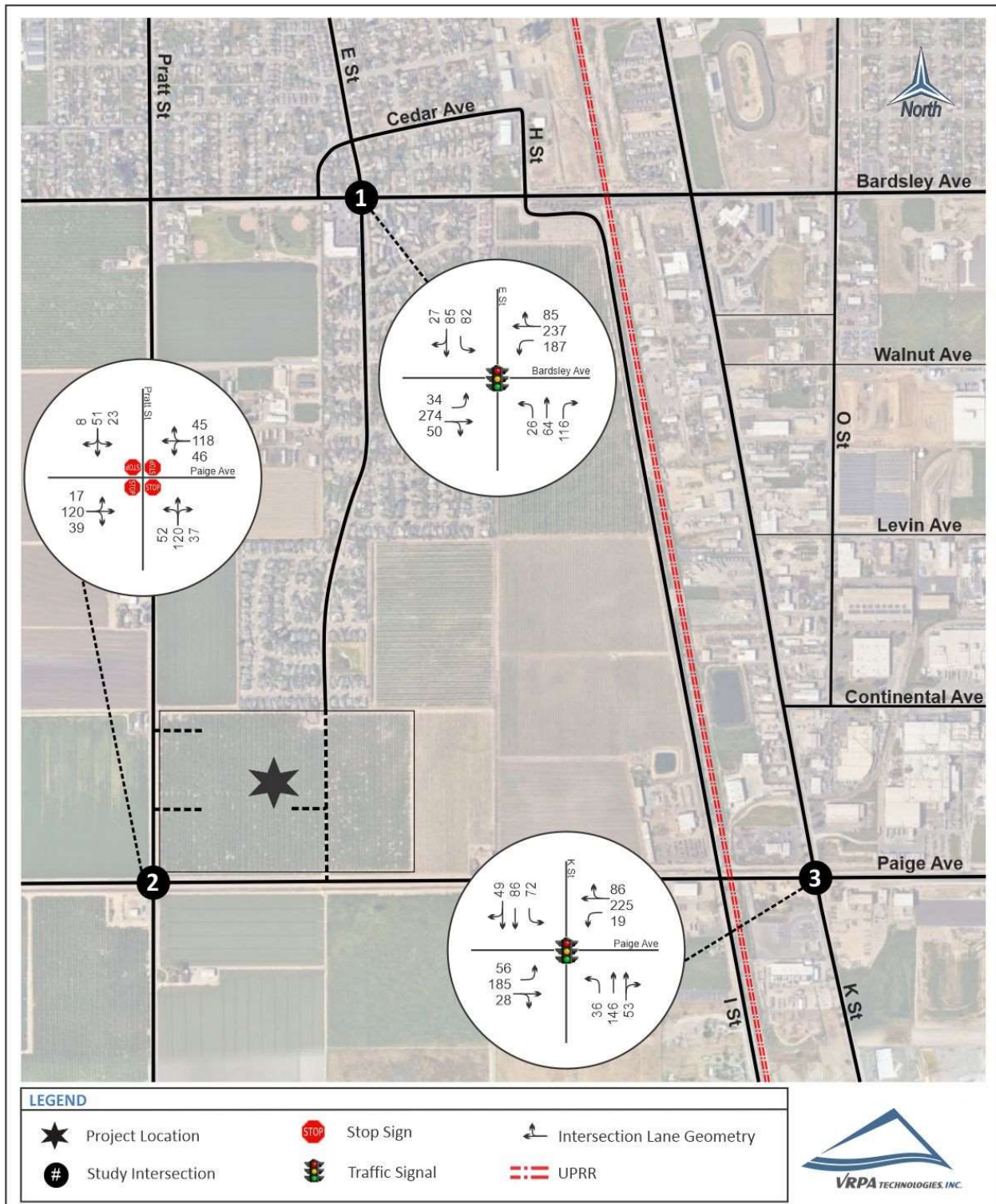
Lekkerkerker Residential Development
Opening Year 2024 Plus Project AM Peak Hour Traffic

Figure
3-6



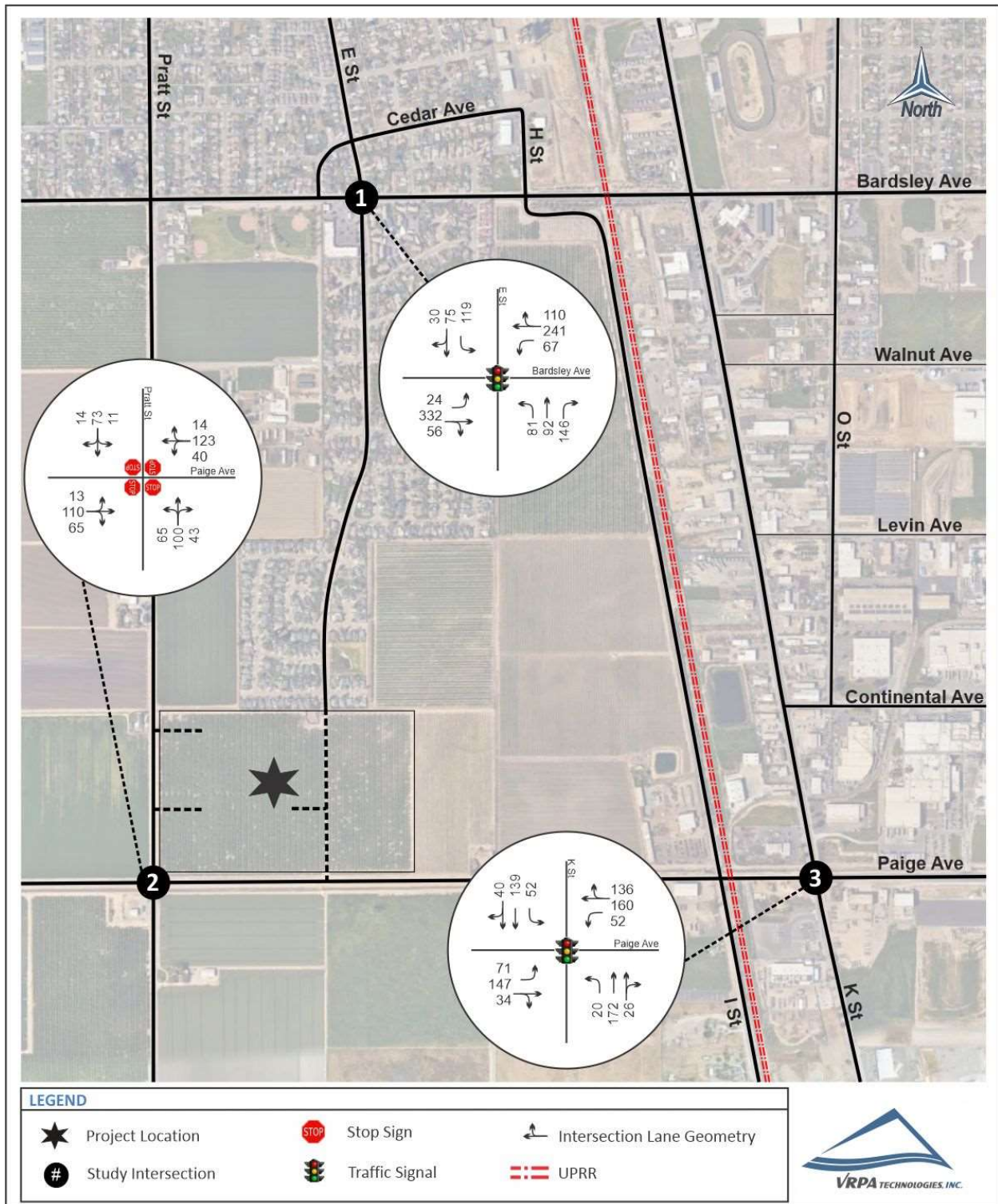
Lekkerkerker Residential Development
Opening Year 2024 Plus Project PM Peak Hour Traffic

Figure
3-7



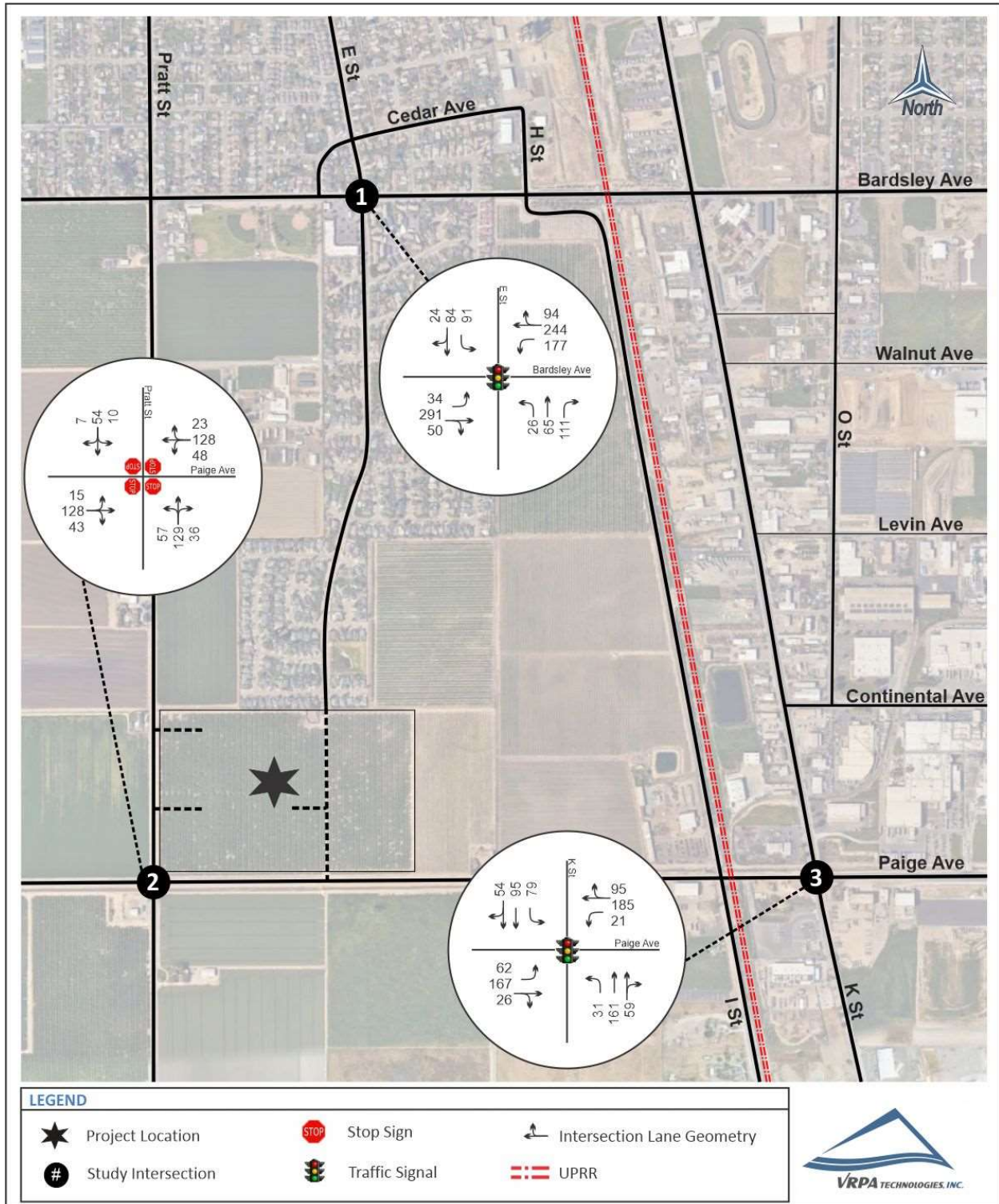
Lekkerkerker Residential Development
5-Year Horizon Without Project AM Peak Hour Traffic

Figure
3-8



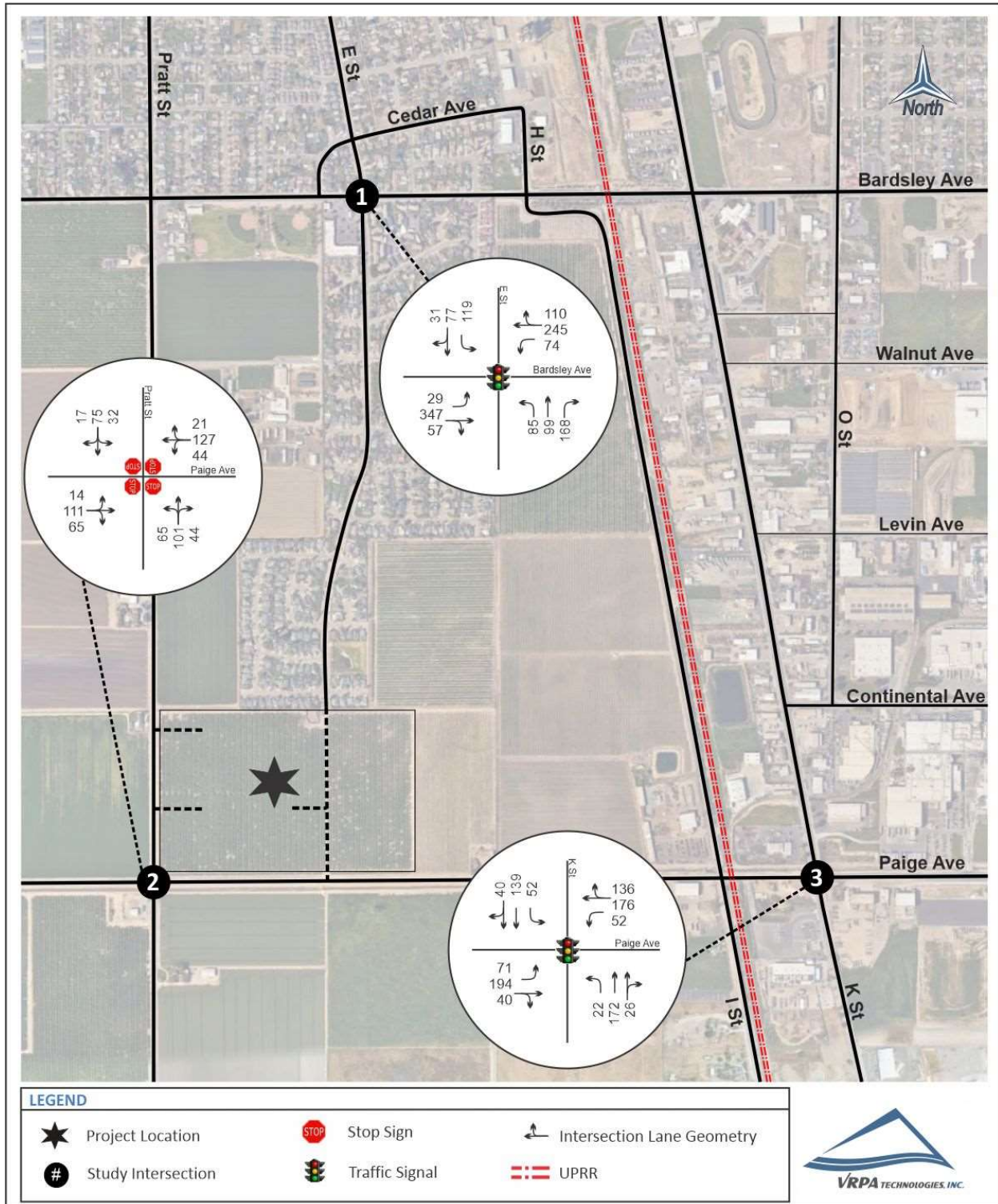
Lekkerkerker Residential Development
 5-Year Horizon Without Project PM Peak Hour Traffic

Figure
3-9



Lekkerkerker Residential Development
5-Year Horizon Plus Project AM Peak Hour Traffic

Figure
3-10



Lekkerkerker Residential Development
5-Year Horizon Plus Project PM Peak Hour Traffic

Figure
3-11

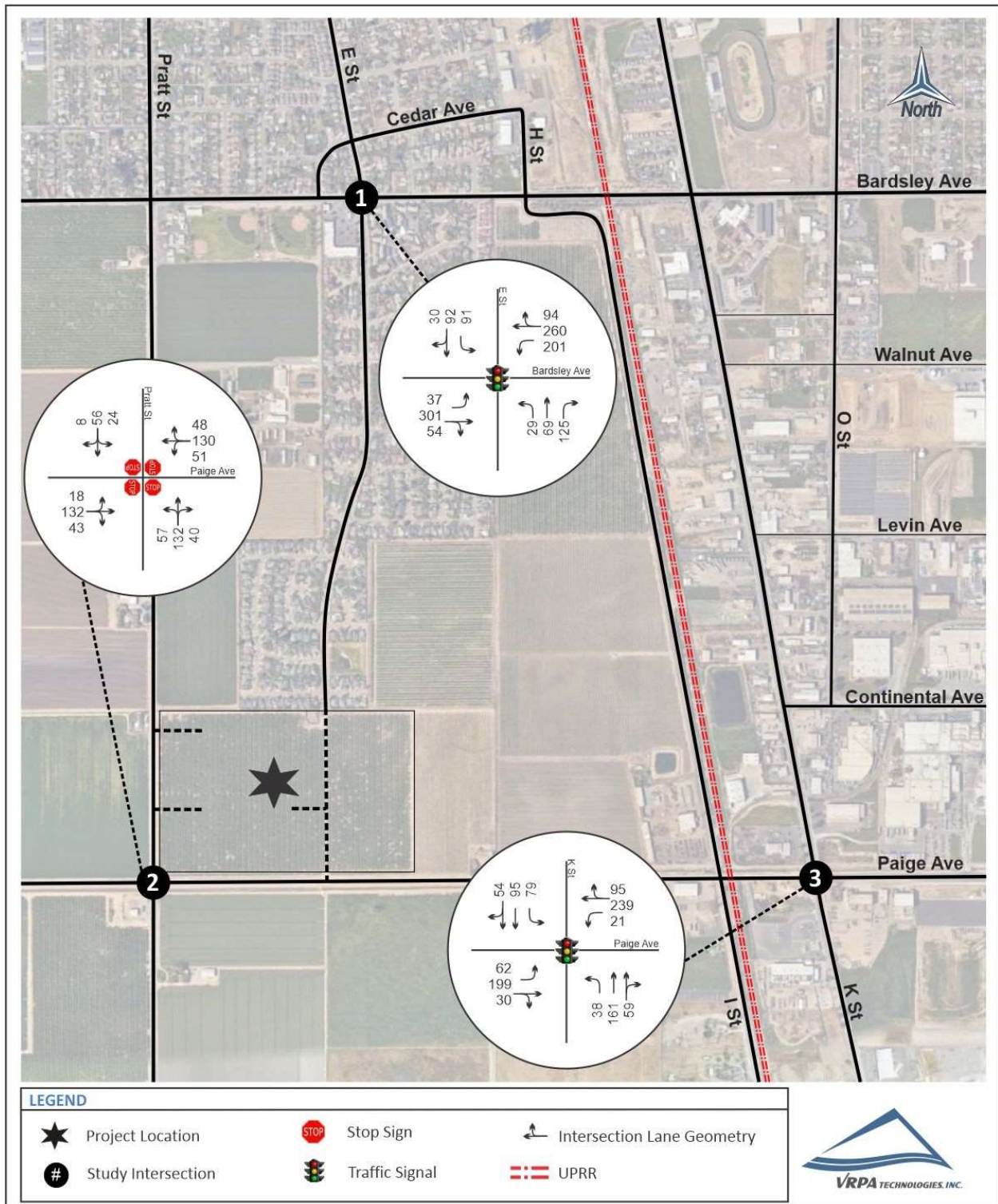


Table 3-2
Intersection Operations

INTERSECTION		CONTROL	TARGET LOS	PEAK HOUR	OPENING YEAR WITHOUT PROJECT		OPENING YEAR PLUS PROJECT		5-YEAR HORIZON WITHOUT PROJECT		5-YEAR HORIZON PLUS PROJECT	
					DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1	Bardsley Avenue and E Street	Signalized	D	AM	14.5	B	14.7	B	15.3	B	15.6	B
				PM	14.6	B	14.5	B	14.6	B	14.6	B
2	Paige Avenue and Pratt Street	Four-Way Stop	D	AM	9.9	A	10.3	B	10.5	B	11.0	B
				PM	10.2	B	10.8	B	10.9	B	11.7	B
3	Paige Avenue and K Street	Signalized	D	AM	23.0	C	23.6	C	23.8	C	24.0	C
				PM	23.8	C	25.6	C	24.4	C	24.4	C

DELAY is measured in seconds
 LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded
 For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection.

Table 3-3
Queuing Operations

INTERSECTION		EXISTING QUEUE STORAGE LENGTH (ft)		OPENING YEAR WITHOUT PROJECT		OPENING YEAR PLUS PROJECT		5-YEAR HORIZON WITHOUT PROJECT		5-YEAR HORIZON PLUS PROJECT	
				AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue
1	Bardsley Avenue and E Street	NB Left	125	37	17	41	20	44	20	49	23
		NB Right	50	13	22	14	25	14	24	14	28
		SB Left	125	54	43	56	47	65	51	69	56
		EB Left	75	20	25	23	25	22	25	24	26
		WB Left	75	48	133	55	153	57	151	63	173
3	Paige Avenue and K Street	NB Left	150	32	45	35	52	35	47	38	54
		SB Left	150	61	86	62	86	67	94	68	94
		EB Left	100	71	70	72	70	80	77	80	77
		WB Left	100	62	33	62	33	66	36	67	36

Queue is measured in feet / **BOLD** denotes exceedance

Table 3-4
Roadway Segment Operations (ADT)

STREET SEGMENT	SEGMENT DESCRIPTION	ROADWAY FUNCTIONAL CLASSIFICATION	TARGET LOS	OPENING YEAR WITHOUT PROJECT		OPENING YEAR PLUS PROJECT		5-YEAR HORIZON WITHOUT PROJECT		5-YEAR HORIZON PLUS PROJECT	
				VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
Paige Avenue											
Pratt Street and I Street	2 Lanes Undivided	Major Arterial	D	5,234	C	6,331	C	5,690	C	6,787	C

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

4.0 Roadway Improvements

4.1 Roadway Improvements

As discussed in Section 3.0 (Impacts), roadway improvements may be desirable to support the development of the Project, as well as to accommodate traffic increases related to overall growth in the study area.

Considering the results presented in Section 3.0, the following improvements may be implemented to accommodate traffic increases related to overall growth in the study area.

INTERSECTIONS

1. Bardsley Avenue and E Street

Recommended improvements:

- Opening Year Without Project, Opening Year Plus Project, 5-Year Horizon Without Project, and 5-Year Horizon Plus Project Conditions
 - Lengthen the westbound left storage pocket from 75 feet to 175 feet.

ROADWAY SEGMENTS

1. Paige Avenue at UPRR Crossing

Recommended improvements:

- Opening Year Plus Project and 5-Year Horizon Plus Project Conditions - Improvements to the at grade UPRR crossing at Paige Avenue could include Installation of Warning Signs and Pavement Markings consistent with CA MUTCD Figure 8B-6 (CA):
 - W10-2 signs at the northbound and southbound I Street approaches
 - R8-8 and R8-10a signs at the crossing at the eastbound and westbound approaches
 - W10-1 and W10-11 signage along Paige Avenue consistent with CA MUTCD Table 2C-4 (Guidelines for Advance Placement of Warning Signs)
 - Enhanced pavement markings at and adjacent to the at grade crossing

The recommended storage pocket lengths considering the 5-Year Horizon Plus Project scenario is presented in Table 4-1.

It is recommended that the applicant's team work with the City of Tulare to determine whether any of the improvements described above would be appropriate for implementation as a

condition of the Project or would be justification for the payment of fair share fees.

4.2 Equitable Share Responsibility

The Project may be required to contribute a fair-share towards the costs of improvements that are identified for the 5-Year Horizon scenario. The intent of determining the equitable responsibility for the improvements identified above for the 5-Year Horizon scenario is to provide a starting point for early discussions between the applicant and the City of Tulare to address improvement equitability and to calculate the equitable share for mitigating impacts. The formula used to calculate the equitable share responsibility to City of Tulare facilities is as follows:

$$\text{Equitable Share} = (\text{Project Trips}) / (\text{5-Year Horizon Plus Project Traffic} - \text{Existing Traffic})$$

Table 4-2 shows the Project's equitable fair share responsibility on a percentage basis for improvements to City of Tulare facilities as described above.

Table 4-1
Left Turn and Right Turn Storage Requirements

INTERSECTION		EXISTING QUEUE STORAGE LENGTH (ft)		5-YEAR HORIZON RECOMMENDED QUEUE STORAGE LENGTH (ft)
1	Bardsley Avenue and E Street	NB Left	125	125
		NB Right	50	50
		SB Left	125	125
		EB Left	75	75
		WB Left	75	175
3	Paige Avenue and K Street	NB Left	150	150
		SB Left	150	150
		EB Left	100	100
		WB Left	100	100

BOLD denotes new or increased storage length

Table 4-2
5-Year Horizon Equitable Share Responsibility

INTERSECTION	PEAK HOUR	EXISTING	PROJECT TRIPS	5-YEAR HORIZON PLUS PROJECT	FAIR SHARE PERCENTAGE
1. Bardsley Avenue and E Street	AM	1,198	68	1,442	27.9%
	PM	1,106	94	1,384	33.8%
Paige Avenue at UPRR Crossing	AM	381	71	542	44.1%
	PM	412	97	622	46.2%

Lekkerkerker Residential Development

Transportation Impact Study Appendices October 2024

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**Appendix A – Federal Highway
Administrations' (FHWA) Simplified
Highway Capacity Calculation Method for the
Highway Performance Monitoring System**

Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System

October 2017



U.S. Department of Transportation
Federal Highway Administration

Notice

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CHAPTER 1. INTRODUCTION

The Federal Highway Administration's (FHWA) Highway Performance Monitoring System (HPMS) provides information on the extent, condition, performance, use, and operating characteristics of the Nation's highways. Each year State Transportation Agencies (STA) must submit HPMS data to the FHWA. Certain data items, including length, lane-miles, and travel are required for all public roads that are eligible for Federal-aid highway funds. The data items reported for all public roads are known as full extent data items. In addition to full extent data items, there are data items that are reported on a partial extent basis, which are known as sample panel data items. The sample panel provides more detailed statistical data on a randomly selected sample of roadway sections in the State's public road system. One data item submitted for sample panels is capacity (Sample Panel Data Item 69). The HPMS Field Manual guidance for capacity is as follows: "The capacity of a roadway facility is the maximum reasonable hourly rate at which vehicles can be expected to transverse a point or a uniform section of lane or roadway during a given time period under prevailing roadway, traffic, and control conditions. Reasonable expectancy is that the stated capacity can be achieved repeatedly. The *Highway Capacity Manual (HCM)* provides procedures, formulas, graphics, and tables in assessing roadway capacity. This item should be estimated based on procedures consistent with the HCM. All urban and rural capacity for freeways and other multilane facilities is for the peak direction. If a rural facility has two or three lanes with one-way operation, it is considered to be a multilane facility for determining capacity. The capacity for rural facilities with two or three lanes and two-way operation is for both directions."

The objectives of the project are to develop:

1. Capacity computation methods that: 1) use HPMS data items to the extent possible, and 2) can be used to validate HPMS Sample Panel Item 69.
2. Simplified methodologies to create generalized level of service (LOS) lookup tables.
3. These two objectives were covered by tasks 2 and 3 and are presented as separate sections below (figure 1).

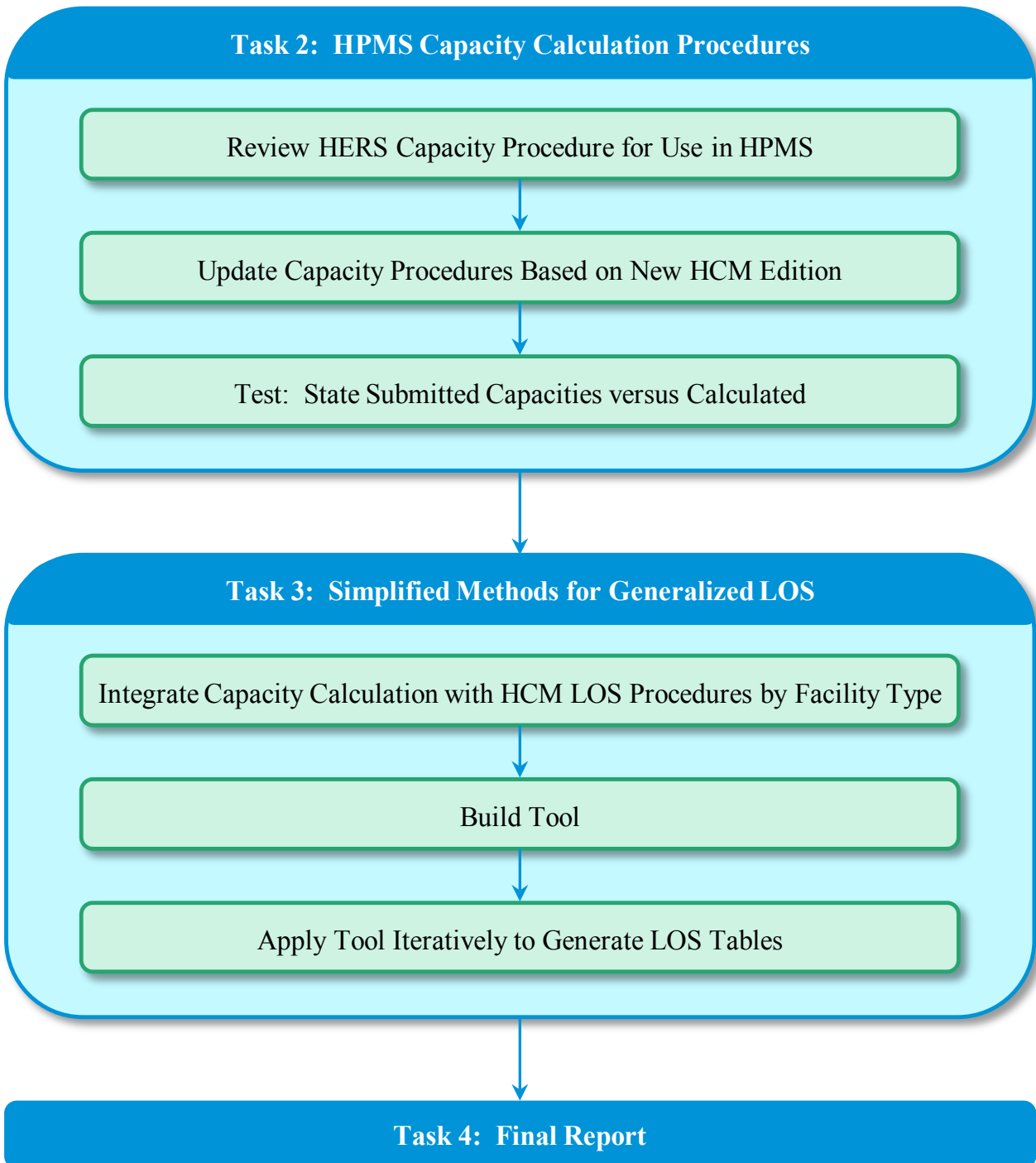


Figure 1. Flow chart. Overview of major task activities.

CHAPTER 2. DEVELOPMENT OF CAPACITY COMPUTATION METHODS

REVIEW HIGHWAY ECONOMIC REQUIREMENTS SYSTEM CAPACITY PROCEDURES FOR USE IN HIGHWAY PERFORMANCE MONITORING SYSTEM

The Highway Economic Requirements System (HERS) capacity procedures, completed in 2014, adapted the Highway Capacity Manual (HCM) 2010 capacity calculation methods.¹ It utilized Highway Performance Monitoring System (HPMS) data items to the maximum extent but also had to make many assumptions about default values. The HPMS data items that were used are shown in table 1. HCM capacity input data that had to set to default values are as follows:

- **Freeways**—ramp density, peak-hour factor, and driver population factor.
- **Multilane highways**—driveway density, peak-hour factor, and driver population factor.
- **Signals**—lane group assignments (based on presence of right- and left-turning lanes), grade, number of parking maneuvers per hour, bus blockage, area type, lane utilization, left- and right-turn lanes.
- **Rural two-lane highways**—driveway density and peak-hour factor.
- **Stop signs**—conflicting flow rates, base critical gap, follow-up times, and assignment of turning movements to lanes.

The project team compared the HERS procedures with National Cooperative Highway Research Program (NCHRP) Project 07-22, Planning and Preliminary Engineering Applications Guide to the HCM. The report has recently been published as NCHRP Report 825.² Its midlevel analysis methods for capacity are very similar to the HERS procedures which preceded it. Where the two methods differ, we developed a test procedure using 2014 HPMS data to compare the capacity values obtained with each method. The results of the comparison are as follows.

Table 1. Highway performance monitoring system data items used in the highway economic requirements system capacity calculation procedures.

HPMS Data Item	Facility Type				
	Freeways	Multilane	Signals	Rural Two Lane	Stop Sign
Lane Width	●	●	●	●	—
Right Shoulder Width	●	●	—	●	—
Left Shoulder Width	—	●	—	—	—
Through Lanes	●	●	—	—	●
Peak Lanes	—	—	—	—	●
% SU Trucks	●	●	●	●	●

¹ Task 6 Technical Memo: Procedures for Estimating Highway Capacity, May 2014.

² Dowling, Richard et al., *Planning and Preliminary Engineering Applications Guide to the Highway Capacity Manual*, NCHRP Report 825, 2016, <http://www.trb.org/NCHRP/Blurbs/174958.aspx>.

Table 1. Highway performance monitoring system data items used in the highway economic requirements system capacity calculation procedures (continuation).

HPMS Data Item	Facility Type				
	Freeways	Multilane	Signals	Rural Two Lane	Stop Sign
% Comb. Trucks	●	●	●	●	●
Median Type	—	—	—	—	—
No. Other Intersections	—	●	—	●	—
Right-Turn Lanes	—	—	●	—	●
Left-Turn Lanes	—	—	●	—	●
K-factor	—	—	●	●	●
D-factor	—	—	●	●	●
Percent Green Lime	—	—	●	—	—
Terrain	●	●	—	●	—
Functional Class	—	—	—	—	●
Speed Limit ^a	—	—	—	●	—

^a Speed limit is generally used in the computation of service measures but except for rural two-lane highways is not used in capacity calculation.

Freeways

The HERS capacity procedure is very similar to that of NCHRP 825. The HERS procedure follows the HCM procedure verbatim, with adjustments for lane width, lateral clearance, interchange density, heavy trucks, and the peak-hour factor. The NCHRP method excludes the peak-hour factor. However, their formulations for the final capacity value are slightly different. When applied to 2014 Sample Panel data (21,940 freeway sections), HERS-developed capacity values are five percent lower than those of NCHRP 825. We consider this difference negligible, *so we recommend the NCHRP 825 method for capacity and (Level of Service) LOS calculations.*

$$Capacity = \frac{(2,200 + 10 \times (\min(70, FFS) - 50))}{1 + \%HV/100} \times Lanes$$

Where: FFS = free flow speed
 %HV = percent of heavy vehicles (decimal), with heavy vehicles consisting of trucks with more than four tires, buses, and recreational vehicles Multilane Highways

Figure 2. Equation. Capacity calculation for freeway capacity.

$$FFS = 75.4 - f_{LW} - f_{RLC}$$

Where: f_{LW} = adjustment for lane width (HPMS data item 34)
 f_{RLC} = adjustment for right side lateral clearance (HPMS data item 38)
 Lanes = HPMS data item 10

Figure 3. Equation. Calculation of free flow speed for freeways.

The HERS method follows the HCM faithfully. NCHRP 825 recommends using the HCM method, so the two methods are the same. ***Therefore, the HCM method (which also is the HERS method) is recommended for capacity and LOS calculations.***

Multilane Highways

The HERS method follows the HCM faithfully. NCHRP 825 recommends using the HCM method, so the two methods are the same. ***Therefore, the HCM method (which is also the HERS method) is recommended for capacity and LOS calculations.***

$$Capacity = BaseCapacity \times f_{HV} \times Lanes$$

Where: $BaseCapacity = 1,000 + 20 \times FFS$; for $FFS \leq 60$; 2,200 otherwise

f_{HV} = adjustment for heavy vehicles

$$f_{HV} = \frac{1}{(1 + PT \times (ET - 1))}$$

PT = HPMS data item 23 + HPMS data item 25

ET = 1.5 if HPMS data item 2 indicates a former urban area; otherwise:

= 1.5 if HPMS data item 44 = 1

= 2.5 if HPMS data item 44 = 2

= 4.5 if HPMS data item 44 = 3

FFS = HPMS data item 14 + 5

Lanes = HPMS data item 10

Figure 4. Equation. Calculation of capacity for multilane highways.

Signalized Highways

Different philosophies are taken between the HERS method and NCHRP 825 method. In the HERS method, the capacity of the entire approach is calculated. This is done because in HERS' speed estimation, turning movement volumes are not available in HPMS and the volume on the entire segment is used. In the NCHRP 825 method, only the through movement is used. (It offers a solution if only total volume is available: if exclusive left-turn and right lanes exist, deduct 10 percent for each.) To be comparable, we used the HERS method to analyze just the through

movement. In the HERS method, saturation flow rate is adjusted downward for lane width, heavy vehicles, parking, and the peak-hour factor. In the NCHRP 825 method, saturation flow rate is unadjusted. As a result, when applied to the Sample Panel data (26,504 signalized sections), the HERS method produces capacities that are 14 percent lower than NCHRP 825. The main problem with the HERS method is that the turning lane and their volume assignments are based on many assumptions. ***Because of its simplicity in dealing with turning movements, we recommend the NCHRP 825 method for capacity and LOS calculations.***

$$Capacity = \frac{g}{C} \times Lanes \times 1,900$$

Where: g/C = HPMS data item 30

Lanes = HPMS data item 10

Figure 5. Equation. Calculation of capacity for signalized highways.

Two-Lane Highways with No Traffic Control

Completely different approaches are taken by the two methods. The HERS method assumes that no traffic control is present while the NCHRP 825 method includes delay at intersections if they are present. The HERS procedure calculates two-way capacity while the NCHRP method uses one-way capacity and assigns a fixed value, either 1,450 or 1,490 vehicles per hour, but capacity is not used in the calculation of LOS—it is only used to create a v/c ratio for screening. Because of this difference, no tests were made. The HERS method is quite complex, accounting for grades, heavy vehicles, peak-hour factor, and percent no passing zones. The NCHRP 825 approach is simpler for capacity, but the calculation of speed and associated LOS basically follows the same method as for the capacity calculation in HERS. This is because capacity is “backcalculated” in the HERS method so that the HERS speed equations, which are based on the AADT-to-capacity ratio, can be used. In the NCHRP 825 method, capacity is largely irrelevant for two-lane highway LOS as it is based on average travel speed or percent of time following. ***Because it is more closely tied to HCM methods for the calculation of average travel speed (the basis for LOS), we recommend the NCHRP 825 method for capacity (one-way) and LOS calculations. That is, the one-way capacity is set at 1,490 vehicles per hour.***

Stop-Controlled Highways

Very different capacity calculations are used in the HCM 2010 depending on whether an intersection has two-way stop control or all-way stop control. Unfortunately, it is impossible to distinguish the two conditions with HPMS data. Both HERS and NCHRP 825 procedures are complex and highly dependent on turning movements on all the approaches. The HERS procedure is based on the HCM 2000 procedure for two-way stop-controlled intersections. It is data intensive and makes many assumptions about turning movements based on the presence of turning lanes. In contrast, the NCHRP 825 procedure uses the highly simplified adaptation of the HCM procedure for all-way stop control and a more complex procedure for two-way stop control which is based on the update to the HCM 2010. For this reason, we did not run any comparisons between the two methods. ***Because, the two-way stop control procedures in NCHRP 825 is***

based on the recently updated version of the HCM 2010, we recommend that the NCHRP 825 procedure be used for capacity and LOS calculations. In doing so, it is assumed that all stop control is two-way.

$$\begin{aligned}\text{Capacity} &= 1,200 \text{ vehicles/hour; where HPMS data item 10} = 1 \\ &= 1,500 \text{ vehicles/hour otherwise}\end{aligned}$$

Figure 6. Equation. Calculation of capacity for stop-controlled highways.

UPDATE CAPACITY PROCEDURES BASED ON NEW HIGHWAY CAPACITY MANUAL EDITION

The Major Update to the HCM 2010 has been released. We reviewed the new procedures against the HERS capacity procedures and found no changes in the way capacity is calculated except for two-way stop-controlled intersections. The NCHRP 825 method is consistent with the new HCM as the researchers had access to the draft chapters. Therefore, the recommendations made above are not changed.

CHAPTER 3. BACKGROUND DEVELOP SIMPLIFIED METHODOLOGIES TO CREATE GENERALIZED LEVEL OF SERVICE (LOS) LOOKUP TABLES

BACKGROUND

This report documents the work performed on Task 3: Develop Simplified Methodologies to Create Generalized Level of Service (LOS) Lookup Tables. At the kickoff meeting it was decided that a stand-alone tool would be built that can interface directly with Highway Performance Monitoring System (HPMS) data. Based on the task 2 assessment, the **National Cooperative Highway Research Program (NCHRP)** Report 825 version of the Highway Capacity Manual (HCM) procedures for calculating LOS has been programmed into this tool.³ The advantage is that all relevant HPMS data elements could be used. Also, updating would be much easier—all that is required is to change the procedure rather than regenerate the massive lookup table that otherwise would have been created. In addition to the LOS designation for an HPMS section, the actual value of the service measure on which LOS is based will also be reported. It also was decided that generalized service volume tables for each facility would be produced, accounting for all of the nondefault factors that are covered by the NCHRP 825 methodology.

The types of facilities that are included in the analysis are as follows. These follow the facility types covered by the HCM:

- Freeways.
- Multilane highways.
- Rural two-lane highways.
- Signalized highways.
- Stop-controlled highways.

HPMS sections can be grouped into these categories based on their data elements. A hierarchy is used to make these assignments:

- If functional system is one or two, and full access control exists, then the section is a freeway.
- If stop signs exist, then the section is stop controlled.
- If signals exist, then the section is signalized.
- If through lanes are greater than or equal to four, the section is multilane.
- If through lanes are equal to two or three and the urban code indicates rural, the section is rural two lane.

However, a significant number of HPMS Sample Panel sections (about 30,000) cannot be classified using the above scheme. These tend to be two-, three-lane urban highways with no traffic control device on the actual section. Level of Service was not calculated for these

³ Dowling, Richard et al., *Planning and Preliminary Engineering Applications Guide to the Highway Capacity Manual*, NCHRP Report 825, 2016, <http://www.trb.org/NCHRP/Blurbs/174958.aspx>.

sections. One option for these sections is to treat them as signalized highways with 100 percent green time, but this results in a vast majority in LOS A, which is most likely misleading. Therefore, Level of Service was not calculated for these sections.

DEFAULT VALUES

For freeways and multilane highways, the NCHRP 825 method is followed directly and all of the required data elements are present in the HPMS Sample Panel. For signalized highways, the only data element not present in HPMS is cycle length. The following cycle lengths are assumed:

- **Principal arterials**—120 seconds.
- **Minor arterials**—90 seconds.
- **Collectors**—60 seconds.

For rural two-lane highways, LOS is based on average travel speed (ATS). A greatly simplified method was used for stop-controlled highways because so much of the required data on turning movements and cross-street volumes do not exist in HPMS:

- It is assumed that the section is two-way stop controlled.
- Conflicting flow rates are based on the values in table 2.

Table 2. Conflicting flow rates for two-way stop-controlled highways—vehicles per hour.

Land Use	Functional System		
	Principal Arterial	Minor Arterial	Collector
Rural	100	150	200
Urban	250	500	750

Preliminary analysis of the 2014 HPMS Sample Panel revealed that many data items used to undertake the LOS calculations were missing. As a result, the project team developed default values for the required data items. These were calculated as the median value for records where the data items were present (table 3).

RESULTS

Tables 4 and 5 present the results of applying the HCM-based LOS calculation procedures to the 2014 HPMS Sample Panel data. Tables 6 through 10 show the individual HPMS sections with LOS and service measure attached for each highway type; a separate spreadsheet contains the entire dataset. Tables 11 and 12 provide the LOS ranges for each highway type from the HCM.

Generalized service volume tables are provided in the appendix.

Table 3. Default values for level of service calculation.

HPMS Data Item	Freeways		Multilane		Signalized	Rural Two Lane
	Urban	Rural	Urban	Rural		
LANE_WIDTH	12	12	12	12	11	12
SHOULDER_WIDTH_R	10	10	10	10		5
AADT_SINGLE_UNIT	=AADT*0.034	=AADT*0.043	=AADT*0.038	=AADT*0.043		=AADT*0.051
AADT_COMBINATION	=AADT*0.060	=AADT*0.193	=AADT*0.035	=AADT*0.082		=AADT*0.048
K_FACTOR	10	9	10	10	10	11
D_FACTOR	55	55	59	57	57	57
MEDIAN_TYPE			3	2		
SPEED_LIMIT			55	65	40	55
PCT_GREEN_TIME					50	
SIGNAL_TYPE					2	
TERRAIN_TYPE	1	2	1	2		2

Table 4. Level of service for 2014 highway performance monitoring system sample panel—rural sections.

Area Type	Highway Type	Level of Service	No. Sections	Mileage	% of Mileage
Rural	Freeway	A	3,561	18,209	56.3%
Rural	Freeway	B	2,148	8,711	26.9%
Rural	Freeway	C	687	3,402	10.5%
Rural	Freeway	D	270	1,407	4.4%
Rural	Freeway	E	78	343	1.1%
Rural	Freeway	F	88	265	0.8%
Rural	Freeway	A-F Total	6,832	32,336	100.0%
Rural	Multilane	A	2,624	30,015	89.7%
Rural	Multilane	B	478	2,647	7.9%
Rural	Multilane	C	131	616	1.8%
Rural	Multilane	D	43	91	0.3%
Rural	Multilane	E	13	42	0.1%
Rural	Multilane	F	12	47	0.1%
Rural	Multilane	A-F Total	3,301	33,459	100.0%
Rural	Rural Two Lane	A	9,559	374,043	77.9%
Rural	Rural Two Lane	B	1,679	33,692	7.0%
Rural	Rural Two Lane	C	1,323	28,683	6.0%
Rural	Rural Two Lane	D	888	18,033	3.8%
Rural	Rural Two Lane	E	1,808	23,353	4.9%
Rural	Rural Two Lane	F	182	2,333	0.5%
Rural	Rural Two Lane	A-F Total	15,439	480,137	100.0%
Rural	Signalized	A	442	6,921	87.7%
Rural	Signalized	B	101	566	7.2%
Rural	Signalized	C	81	277	3.5%
Rural	Signalized	D	23	30	0.4%
Rural	Signalized	E	15	24	0.3%
Rural	Signalized	F	40	76	1.0%
Rural	Signalized	A-F Total	702	7,894	100.0%
Rural	Stop Controlled	A	100	1,334	1.0%
Rural	Stop Controlled	B	2,022	127,671	97.6%
Rural	Stop Controlled	C	62	1,359	1.0%
Rural	Stop Controlled	D	10	138	0.1%
Rural	Stop Controlled	E	6	177	0.1%
Rural	Stop Controlled	F	15	74	0.1%
Rural	Stop Controlled	A-F Total	2,215	130,754	100.0%

Note: Mileage is the expanded mileage—section length times the HPMS expansion factor.

Table 5. Level of service for 2014 highway performance monitoring system sample panel—urban sections.

Area Type	Highway Type	Level of Service	No. Sections	Mileage	% of Mileage
Urban	Freeway	A	3,507	6,338	21.7%
Urban	Freeway	B	3,631	6,465	22.2%
Urban	Freeway	C	3,170	6,445	22.1%
Urban	Freeway	D	2,130	4,397	15.1%
Urban	Freeway	E	975	2,107	7.2%
Urban	Freeway	F	1,695	3,414	11.7%
Urban	Freeway	A-F Total	15,108	29,166	100.0%
Urban	Multilane	A	5,774	18,605	56.9%
Urban	Multilane	B	2,875	8,616	26.4%
Urban	Multilane	C	1,393	3,632	11.1%
Urban	Multilane	D	508	1,264	3.9%
Urban	Multilane	E	195	304	0.9%
Urban	Multilane	F	147	273	0.8%
Urban	Multilane	A-F Total	10,892	32,695	100.0%
Urban	Signalized	A	8,759	57,615	56.3%
Urban	Signalized	B	5,495	20,887	20.4%
Urban	Signalized	C	4,558	11,602	11.3%
Urban	Signalized	D	2,061	4,083	4.0%
Urban	Signalized	E	1,336	2,525	2.5%
Urban	Signalized	F	2,918	5,571	5.4%
Urban	Signalized	A-F Total	25,127	102,284	100.0%
Urban	Stop Controlled	B	1,643	3,358	5.5%
Urban	Stop Controlled	C	7,525	34,253	55.6%
Urban	Stop Controlled	D	1,234	8,657	14.1%
Urban	Stop Controlled	E	559	3,682	6.0%
Urban	Stop Controlled	F	1,839	11,611	18.9%
Urban	Stop Controlled	A-F Total	12,800	61,560	100.0%

Table 6. Selected highway performance monitoring system freeway sections with level of service and service measures attached.

Highway Type	State Code	Functional System	Route Signing	Route Number	Begin Point	End Point	County Code	Level of Service	Service Measure	Service Measure Value	Expanded Mileage
Freeway	1	1	2	65	182.47	183.53	1	C	Density	21.8	3.61
Freeway	1	1	2	10	29.07	29.073	3	E	Density	44.4	0.00
Freeway	1	1	2	10	29.073	30.258	3	F	Density	51.1	1.26
Freeway	1	1	2	10	30.258	32.77	3	F	Density	58.1	2.68
Freeway	1	1	2	10	32.77	34.5	3	F	Density	58.1	1.84
Freeway	1	1	2	10	34.5	34.98	3	F	Density	58.1	0.51
Freeway	1	1	2	10	34.984	35.181	3	F	Density	49.8	0.20
Freeway	1	1	2	10	35.181	38.775	3	E	Density	38.6	3.60
Freeway	1	1	2	10	38.775	41.3	3	C	Density	18.5	2.53
Freeway	1	1	2	10	41.3	44.31	3	C	Density	18.5	3.01
Freeway	1	1	2	10	44.32	44.89	3	B	Density	13.8	0.57
Freeway	1	1	2	10	44.89	44.899	3	B	Density	13.8	0.01
Freeway	1	1	2	10	58.56	66.29	3	C	Density	19.9	36.99
Freeway	1	1	2	65	32.21	34.07	3	C	Density	21.4	8.90
Freeway	1	1	2	65	34.092	37.77	3	A	Density	9.8	4.70
Freeway	1	1	2	65	37.77	37.88	3	A	Density	7.8	0.14
Freeway	1	1	2	65	107.5	111.81	13	B	Density	12.5	20.62
Freeway	1	1	2	65	120.25	123.87	13	B	Density	13.6	17.32
Freeway	1	1	2	65	126.09	126.44	13	B	Density	13.3	0.52
Freeway	1	1	2	65	128.12	129.66	13	B	Density	12.7	2.29
Freeway	1	1	2	65	130.2	131.11	13	B	Density	15.1	1.36
Freeway	1	1	2	65	131.81	133.93	13	B	Density	15.5	10.14
Freeway	1	1	2	65	135.21	139.6	13	B	Density	15.5	21.01

Table 7. Selected highway performance monitoring system multilane sections with level of service and service measures attached.

Highway Type	State Code	Functional System	Route Signing	Route Number	Begin Point	End Point	County Code	Level of Service	Service Measure	Service Measure Value	Expanded Mileage
Multilane	6	2		20	14.869	15.231	13	B	Density	17.1	4.34
Multilane	6	2		20	14.869	15.231	13	B	Density	17.1	0.94
Multilane	6	2		20	144.831	144.962	13	B	Density	17.1	0.18
Multilane	6	2		20	144.831	144.962	13	B	Density	17.1	1.57
Multilane	6	2		20	144.831	144.962	13	B	Density	17.1	0.34
Multilane	6	2		20	14.958	15.14	13	B	Density	17.1	0.25
Multilane	6	2		20	14.958	15.14	13	B	Density	17.1	2.18
Multilane	6	2		20	14.958	15.14	13	B	Density	17.1	0.47
Multilane	6	2		50	16.374	16.49	17	C	Density	24.0	0.31
Multilane	6	2		50	16.374	16.49	17	C	Density	24.0	0.13
Multilane	6	2		50	45.959	46.059	17	D	Density	32.7	0.25
Multilane	6	2		50	49.066	49.31	17	C	Density	24.0	0.65
Multilane	6	2		50	49.066	49.31	17	C	Density	24.0	0.28
Multilane	6	2		101	706.865	707.463	23	C	Density	21.9	1.51
Multilane	6	2		111	1.04	1.048	25	B	Density	17.7	0.01
Multilane	6	2		111	1.048	2.076	25	C	Density	19.5	1.03
Multilane	6	2		111	2.076	2.56	25	C	Density	19.0	0.51
Multilane	6	2		111	2.076	2.56	25	C	Density	19.0	0.48
Multilane	6	2		111	11.7	11.708	25	C	Density	19.0	0.01
Multilane	6	2		111	11.7	11.708	25	C	Density	19.0	0.01
Multilane	6	2		33	89.04	89.491	29	A	Density	5.5	1.75

Table 8. Selected highway performance monitoring system rural two-lane sections with level of service and service measures attached.

Highway Type	State Code	Functional System	Route Signing	Route Number	Begin Point	End Point	County Code	Level of Service	Service Measure	Service Measure Value	Expanded Mileage
Rural two lane	29	3	3	59	90.64	96.586	21	A	ATS	66.0	28.53
Rural two lane	29	3	3	59	96.586	99.204	21	A	ATS	66.0	12.56
Rural two lane	29	3	3	59	99.204	101.211	21	A	ATS	66.0	9.63
Rural two lane	29	3	4	53	3.078	9.02	23	A	ATS	59.0	18.99
Rural two lane	29	3	3	54	88.448	93.976	29	A	ATS	66.0	17.67
Rural two lane	29	3	3	54	93.976	97.224	29	A	ATS	64.0	15.58
Rural two lane	29	3	3	54	104.956	107.78	29	A	ATS	67.0	9.84
Rural two lane	29	3	4	72	157.529	161.565	31	A	ATS	61.0	12.90
Rural two lane	29	3	3	24	85.633	87.797	33	A	ATS	61.0	3.88
Rural two lane	29	3	4	21	147.476	148.761	35	A	ATS	61.0	2.31
Rural two lane	29	3	4	291	40.983	43.001	37	B	ATS	54.0	9.68
Rural two lane	29	3	3	54	40.832	44.162	39	A	ATS	67.0	5.97
Rural two lane	29	3	3	24	107.134	109.726	41	A	ATS	67.0	8.28

Table 8. Selected highway performance monitoring system rural two-lane sections with level of service and service measures attached (continuation).

Highway Type	State Code	Functional System	Route Signing	Route Number	Begin Point	End Point	County Code	Level of Service	Service Measure	Service Measure Value	Expanded Mileage
Rural two lane	29	3	3	60	65.175	66.136	43	A	ATS	63.0	3.35
Rural two lane	29	3	3	61	0	2.413	45	A	ATS	62.0	7.71
Rural two lane	29	3	4	92	22.623	26.498	47	B	ATS	55.0	12.38
Rural two lane	29	3	4	8	4.782	14.947	55	A	ATS	61.0	18.24
Rural two lane	29	3	4	8	19.762	22.989	55	A	ATS	59.0	10.31
Rural two lane	29	3	4	8	23.454	33.377	55	A	ATS	61.0	31.71
Rural two lane	29	3	3	65	213.933	215.239	59	A	ATS	66.0	4.17
Rural two lane	29	3	4	6	47.655	51.941	61	A	ATS	66.0	13.70

Table 9. Selected highway performance monitoring system signalized sections with level of service and service measures attached.

Highway Type	State Code	Functional System	Route Signing	Route Number	Begin Point	End Point	County Code	Level of Service	Service Measure	Service Measure Value	Expanded Mileage
Signalized	5	3	4	22	2.56	3.2	131	C	ATS	25.6	4.88
Signalized	5	3	4	22	3.2	3.58	131	A	ATS	35.7	2.90
Signalized	5	3	4	22	8.91	10.64	131	A	ATS	45.9	10.63
Signalized	5	3	3	71	3.91	4.92	131	A	ATS	41.2	7.70
Signalized	5	3	6		0	1.88	131	A	ATS	36.7	11.55
Signalized	5	3	6		0	1.88	131	A	ATS	36.7	11.55
Signalized	5	3	6		0	1.88	131	A	ATS	36.7	11.55
Signalized	5	3	6		0	1.88	131	A	ATS	36.7	11.55
Signalized	5	3	3	71	12.47	13.34	133	A	ATS	44.3	3.62
Signalized	8	3	10		1.009	1.989	1	B	ATS	39.0	7.14
Signalized	8	3	10		0	0.48	1	D	ATS	18.0	3.50
Signalized	8	3	10		1.06	2.08	1	A	ATS	43.6	7.43
Signalized	8	3	10		2.08	4.19	1	B	ATS	39.2	6.30
Signalized	8	3	4	2	3.039	4.401	1	B	ATS	43.5	9.92
Signalized	8	3	10		2.32	3.38	1	A	ATS	42.5	16.90
Signalized	8	3	4	44	0.435	1.807	1	F	ATS	13.8	10.00
Signalized	8	3	4	44	0.435	1.807	1	F	ATS	13.8	10.00
Signalized	8	3	3	160	229.351	230.428	3	C	ATS	36.7	7.62
Signalized	8	3	10		7.82	8.83	5	B	ATS	32.9	16.11
Signalized	8	3	10		0	1.11	5	D	ATS	22.5	17.70
Signalized	8	3	10		2.1	3.1	5	B	ATS	32.2	15.95

Table 10. Selected highway performance monitoring system stop-controlled sections with level of service and service measures attached.

Highway Type	State Code	Functional System	Route Signing	Route Number	Begin Point	End Point	County Code	Level of Service	Service Measure	Service Measure Value	Expanded Mileage
Stop Control	1	5	1	1046	0.12	0.83	33	C	Delay	16.0	1.22
Stop Control	1	5	1	1386	0.294	1.12	33	C	Delay	16.0	1.41
Stop Control	1	5	6	30	5.335	7.2	35	B	Delay	10.2	75.01
Stop Control	1	5	6	85	1.368	6.63	37	B	Delay	10.3	211.63
Stop Control	1	5	6	101	0	1.55	39	C	Delay	16.0	9.61
Stop Control	1	5	6	687	0.07	0.71	39	C	Delay	15.9	3.97
Stop Control	1	5	6	19	0	1.52	39	C	Delay	16.1	9.42
Stop Control	1	5	6	36	7.41	8.17	43	C	Delay	17.3	15.85
Stop Control	1	5	6	11	1.84	6.67	45	B	Delay	10.3	194.25
Stop Control	1	5	6	50	1.534	3.38	45	C	Delay	17.9	38.50
Stop Control	1	5	6	375	0.104	0.69	45	C	Delay	16.3	0.96
Stop Control	1	5	6	377	0	0.31	45	C	Delay	15.7	0.51
Stop Control	1	5	6	23	4.5	7.24	51	C	Delay	17.2	10.80
Stop Control	1	5	6	1	10.858	17	53	B	Delay	10.3	247.02

Table 10. Selected highway performance monitoring system stop-controlled sections with level of service and service measures attached (continuation).

Highway Type	State Code	Functional System	Route Signing	Route Number	Begin Point	End Point	County Code	Level of Service	Service Measure	Service Measure Value	Expanded Mileage
Stop Control	1	5	6	49	1.132	1.46	53	D	Delay	25.8	20.19
Stop Control	1	5	6	5039	0.9	1.5	53	C	Delay	20.1	12.51
Stop Control	1	5	6	15	0	1.43	55	C	Delay	20.2	9.01
Stop Control	1	5	6	185	0	1.86	55	C	Delay	18.2	11.72
Stop Control	1	5	6	185	1.869	2.65	55	C	Delay	18.6	4.92
Stop Control	1	5	1	419	4.238	4.97	55	C	Delay	18.7	4.61
Stop Control	1	5	1	810	0	0.88	55	C	Delay	16.3	1.20

Table 11. Level of service ranges by highway type.

Service Measure	Freeway	Multilane	Rural Two Lane	Stop Controlled
	Density	Density	Average Travel Speed (ATS)	Delay
Level of Service A	≤ 11	≤ 11	> 55	≤ 10
Level of Service B	$> 11-18$	$> 11-18$	$> 50-55$	$> 10-15$
Level of Service C	$> 18-26$	$> 18-26$	$> 45-50$	$> 15-25$
Level of Service D	$> 26-35$	$> 26-35$	$> 40-45$	$> 25-35$
Level of Service E	$> 35-45$	$> 35-45$	≤ 40	$> 35-50$
Level of Service F	> 45 or where demand $>$ capacity	> 45 or where demand $>$ capacity	Demand $>$ capacity	> 50

Notes: Density is measured as passenger cars per mile, per lane. ATS is measured as miles per hour. Delay is measured in seconds per vehicle.

Table 12. Level of service ranges for signalized highways.

Base-Free Flow Speed	Average Travel Speed					
	Level of Service A	Level of Service B	Level of Service C	Level of Service D	Level of Service E	Level of Service F
≥ 55	> 44	> 37	> 28	> 22	> 17	≤ 17
50	> 40	> 34	> 25	> 20	> 15	≤ 15
45	> 36	> 30	> 23	> 18	> 14	≤ 14
40	> 32	> 27	> 20	> 16	> 12	≤ 12
35	> 28	> 23	> 18	> 14	> 11	≤ 11
30	> 24	> 20	> 15	> 12	> 9	≤ 9
≤ 25	> 20	> 17	> 13	> 10	> 8	≤ 8

APPENDIX A. GENERALIZED SERVICE VOLUME TABLES

The service volumes in the tables are the maximum values that can be maintained and still be within the Level of Service (LOS) range. For example in the first row of the freeway table, if the actual volume is less than or equal to 46,100, then it is LOS B. Therefore, the service volumes in the tables are the **maximum** volumes that can be achieved for that LOS category.

For roadways that are dual carriageways, AADT should be divided by two before entering the tables.

Table 13. Freeway generalized service volume table.

Area Type	Number Lanes	Truck Percent	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
Rural						
	4	0	46,100	62,000	74,800	84,700
		10	43,900	59,000	71,200	80,700
		20	41,900	56,300	68,000	77,000
		30	40,100	53,900	65,000	73,700
	6	0	69,200	93,000	112,200	127,100
		10	65,900	88,500	106,900	121,100
		20	62,900	84,500	102,000	115,600
		30	60,100	80,800	97,600	110,500
	8	0	92,200	124,000	149,600	169,500
		10	87,800	118,100	142,500	161,400
		20	83,800	112,700	136,000	154,100
		30	80,200	107,800	130,100	147,400
	10	0	115,300	155,000	187,100	211,900
		10	109,800	147,600	178,100	201,800
		20	104,800	140,900	170,000	192,600
		30	100,300	134,800	162,600	184,200
	12	0	138,400	186,000	224,500	254,300
		10	131,800	177,100	213,800	242,200
		20	125,800	169,100	204,100	231,200
		30	120,300	161,700	195,200	221,100

Table 13. Freeway generalized service volume table (continuation).

Area Type	Number Lanes	Truck Percent	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
Urban						
	4	0	43,700	60,100	73,100	83,000
		10	41,600	57,200	69,600	79,100
		20	39,700	54,600	66,400	75,500
		30	38,000	52,200	63,600	72,200
	6	0	65,600	90,100	109,700	124,600
		10	62,500	85,800	104,400	118,600
		20	59,600	81,900	99,700	113,200
		30	57,000	78,300	95,400	108,300
	8	0	87,500	120,200	146,200	166,100
		10	83,300	114,400	139,300	158,200
		20	79,500	109,200	132,900	151,000
		30	76,100	104,500	127,200	144,400
	10	0	109,400	150,200	182,800	207,600
		10	104,200	143,100	174,100	197,700
		20	99,400	136,600	166,200	188,700
		30	95,100	130,600	159,000	180,500
	12	0	131,300	180,300	219,400	249,200
		10	125,000	171,700	208,900	237,300
		20	119,300	163,900	199,400	226,500
		30	114,100	156,700	190,800	216,700

Table 14. Multilane highway generalized service volume table.

Area Type	Number Lanes	Truck Percent	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
Rural						
	4	0	42,000	57,300	69,600	80,000
		10	39,900	54,600	66,300	76,100
		20	38,100	52,100	63,300	72,700
		30	36,500	49,900	60,600	69,500
	6	0	63,000	86,000	104,500	120,000
		10	59,900	81,900	99,500	114,200
		20	57,200	78,200	95,000	109,000
		30	54,700	74,800	90,900	104,300
	8	0	84,000	114,700	139,300	160,000
		10	79,900	109,300	132,700	152,300
		20	76,300	104,300	126,700	145,400
		30	73,000	99,800	121,200	139,100
	10	0	105,000	143,400	174,200	200,000
		10	99,900	136,600	165,900	190,400
		20	95,400	130,400	158,300	181,800
		30	91,300	124,700	151,500	173,900
Urban						
	4	0	34,500	49,300	61,400	71,600
		10	32,800	47,000	58,400	68,200
		20	31,300	44,800	55,800	65,100
		30	30,000	42,900	53,300	62,300
	6	0	51,700	74,000	92,100	107,500
		10	49,200	70,500	87,700	102,300
		20	47,000	67,300	83,700	97,700
		30	45,000	64,400	80,000	93,400
	8	0	69,000	98,700	122,800	143,300
		10	65,700	94,000	116,900	136,500
		20	62,700	89,700	111,600	130,300
		30	60,000	85,800	106,700	124,600
	10	0	86,200	123,400	153,500	179,100
		10	82,100	117,500	146,200	170,600
		20	78,400	112,200	139,500	162,800
		30	75,000	107,300	133,400	155,700

Table 15. Signalized highway generalized service volume table.

Number Lanes	% Green Time	Speed Limit	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
2	40	35	12,800	14,900	16,400	18,700
		40	12,600	14,400	15,900	17,700
		45	12,000	14,200	15,500	17,400
		50	11,800	13,800	15,200	16,700
		55	12,300	14,100	15,400	16,900
		60	12,700	14,300	15,500	17,100
	45	35	14,600	16,900	18,500	21,100
		40	14,400	16,300	18,000	20,000
		45	13,900	16,100	17,600	19,700
		50	13,600	15,700	17,200	18,900
		55	14,200	16,000	17,400	19,100
		60	14,600	16,200	17,600	19,300
	50	35	16,500	18,900	20,700	23,600
		40	16,300	18,300	20,100	22,300
		45	15,700	18,100	19,600	22,000
		50	15,500	17,700	19,200	21,100
		55	16,100	17,900	19,500	21,400
		60	16,400	18,100	19,600	21,500
	55	35	18,400	20,900	22,900	26,000
		40	18,100	20,300	22,200	24,700
		45	17,600	20,000	21,700	24,300
		50	17,400	19,600	21,300	23,400
		55	17,900	19,900	21,500	23,600
		60	18,300	20,100	21,700	23,800
	60	35	20,300	22,900	25,100	28,500
		40	20,000	22,200	24,400	27,000
		45	19,500	22,000	23,800	26,600
		50	19,300	21,500	23,300	25,600
		55	19,800	21,800	23,600	25,800
		60	20,200	22,100	23,800	26,100

Table 15. Signalized highway generalized service volume table (continuation).

Number Lanes	% Green Time	Speed Limit	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
2	65	35	22,200	25,000	27,300	31,000
		40	21,900	24,200	26,500	29,400
		45	21,400	24,000	25,900	28,900
		50	21,200	23,500	25,400	27,800
		55	21,700	23,800	25,700	28,100
		60	22,100	24,000	25,900	28,300
	70	35	24,100	27,000	29,500	33,500
		40	23,800	26,200	28,700	31,700
		45	23,300	26,000	28,000	31,200
		50	23,100	25,400	27,500	30,100
		55	23,600	25,800	27,800	30,400
		60	24,000	26,000	28,000	30,600
	75	35	26,000	29,100	31,700	36,000
		40	25,700	28,200	30,800	34,100
		45	25,200	28,000	30,100	33,600
		50	25,000	27,400	29,600	32,300
		55	25,500	27,700	29,900	32,700
		60	25,900	28,000	30,100	32,900
	80	35	27,900	31,100	33,900	38,500
		40	27,600	30,300	33,000	36,500
		45	27,100	30,000	32,300	35,900
		50	26,900	29,400	31,700	34,600
		55	27,400	29,700	32,000	35,000
		60	27,800	30,000	32,300	35,200
4	40	35	27,400	30,600	33,300	37,800
		40	27,100	29,700	32,400	35,900
		45	26,500	29,400	31,700	35,300
		50	26,200	28,800	31,100	34,000
		55	26,800	29,200	31,400	34,300
		60	27,300	29,500	31,700	34,600

Table 15. Signalized highway generalized service volume table (continuation).

Number Lanes	% Green Time	Speed Limit	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
4	45	35	31,100	34,500	37,600	42,700
		40	30,700	33,600	36,600	40,500
		45	30,100	33,300	35,800	39,900
		50	29,800	32,600	35,100	38,400
		55	30,500	33,000	35,500	38,800
		60	30,900	33,400	35,800	39,100
	50	35	34,700	38,500	41,900	47,600
		40	34,400	37,500	40,800	45,100
		45	33,700	37,100	39,900	44,400
		50	33,500	36,400	39,200	42,800
		55	34,100	36,900	39,600	43,200
		60	34,600	37,200	39,900	43,600
	55	35	38,400	42,600	46,300	52,500
		40	38,100	41,400	45,100	49,800
		45	37,400	41,000	44,100	49,000
		50	37,100	40,200	43,200	47,200
		55	37,800	40,700	43,700	47,700
		60	38,300	41,100	44,100	48,100
	60	35	42,100	46,600	50,700	57,400
		40	41,800	45,400	49,300	54,400
		45	41,100	44,900	48,200	53,600
		50	40,800	44,100	47,300	51,700
		55	41,500	44,600	47,800	52,200
		60	42,000	45,000	48,300	52,600
	65	35	45,900	50,700	55,100	62,300
		40	45,500	49,300	53,600	59,200
		45	44,800	48,900	52,400	58,300
		50	44,500	48,000	51,500	56,200
		55	45,200	48,500	52,000	56,700
		60	45,700	49,000	52,400	57,100

Table 15. Signalized highway generalized service volume table (continuation).

Number Lanes	% Green Time	Speed Limit	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
4	70	35	49,600	54,700	59,500	67,300
		40	49,200	53,300	57,900	63,900
		45	48,500	52,800	56,600	62,900
		50	48,200	51,900	55,600	60,700
		55	48,900	52,400	56,200	61,200
		60	49,500	52,900	56,700	61,700
	75	35	53,400	58,800	63,900	72,300
		40	53,000	57,300	62,200	68,600
		45	52,200	56,800	60,900	67,600
		50	51,900	55,800	59,800	65,200
		55	52,700	56,400	60,400	65,800
		60	53,200	56,900	60,900	66,300
	80	35	57,200	63,000	68,400	77,300
		40	56,800	61,300	66,600	73,400
		45	56,000	60,800	65,100	72,300
		50	55,700	59,700	64,000	69,700
		55	56,400	60,400	64,600	70,400
		60	57,000	60,900	65,200	70,900
6	40	35	41,700	46,100	50,200	56,900
		40	41,300	44,900	48,800	53,900
		45	40,600	44,400	47,700	53,100
		50	40,300	43,600	46,800	51,200
		55	41,000	44,100	47,300	51,700
		60	41,500	44,600	47,800	52,100
	45	35	47,100	52,000	56,600	64,100
		40	46,700	50,700	55,100	60,800
		45	46,000	50,200	53,900	59,900
		50	45,700	49,300	52,900	57,700
		55	46,400	49,800	53,400	58,300
		60	47,000	50,300	53,900	58,800

Table 15. Signalized highway generalized service volume table (continuation).

Number Lanes	% Green Time	Speed Limit	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
6	50	35	52,600	58,000	63,100	71,500
		40	52,200	56,500	61,400	67,800
		45	51,400	56,000	60,100	66,800
		50	51,100	55,000	59,000	64,400
		55	51,800	55,600	59,600	65,000
		60	52,400	56,100	60,100	65,500
	55	35	58,100	64,100	69,600	78,800
		40	57,700	62,400	67,800	74,800
		45	56,800	61,800	66,300	73,700
		50	56,500	60,700	65,100	71,000
		55	57,300	61,400	65,700	71,700
		60	57,900	62,000	66,300	72,200
	60	35	63,700	70,100	76,200	86,200
		40	63,200	68,300	74,100	81,800
		45	62,300	67,700	72,500	80,600
		50	62,000	66,500	71,200	77,700
		55	62,800	67,200	71,900	78,400
		60	63,500	67,800	72,600	79,000
	65	35	69,300	76,200	82,700	93,600
		40	68,800	74,200	80,600	88,900
		45	67,800	73,600	78,800	87,500
		50	67,400	72,200	77,400	84,400
		55	68,300	73,100	78,200	85,200
		60	69,000	73,700	78,900	85,900
	70	35	74,900	82,300	89,400	101,100
		40	74,300	80,200	87,000	95,900
		45	73,300	79,500	85,100	94,500
		50	72,900	78,100	83,600	91,100
		55	73,900	78,900	84,500	92,000
		60	74,700	79,700	85,200	92,700

Table 15. Signalized highway generalized service volume table (continuation).

Number Lanes	% Green Time	Speed Limit	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
6	75	35	80,500	88,500	96,000	108,600
		40	80,000	86,200	93,500	103,100
		45	78,900	85,500	91,500	101,500
		50	78,500	83,900	89,900	97,900
		55	79,500	84,900	90,800	98,800
		60	80,300	85,700	91,600	99,600
	80	35	86,200	94,700	102,700	116,100
		40	85,600	92,300	100,000	110,200
		45	84,500	91,400	97,900	108,600
		50	84,100	89,800	96,100	104,700
		55	85,100	90,800	97,100	105,700
		60	86,000	91,700	97,900	106,500
8	40	35	55,800	61,600	67,000	75,900
		40	55,400	60,000	65,200	72,000
		45	54,500	59,400	63,700	70,900
		50	54,200	58,300	62,600	68,300
		55	55,000	59,000	63,200	69,000
		60	55,700	59,600	63,800	69,500
	45	35	63,100	69,500	75,600	85,600
		40	62,600	67,700	73,500	81,200
		45	61,700	67,100	71,900	80,000
		50	61,300	65,900	70,600	77,100
		55	62,200	66,600	71,300	77,800
		60	62,900	67,200	72,000	78,400
	50	35	70,400	77,500	84,200	95,300
		40	69,900	75,500	82,000	90,500
		45	68,900	74,800	80,200	89,100
		50	68,500	73,500	78,700	85,900
		55	69,400	74,300	79,500	86,700
		60	70,200	75,000	80,200	87,400

Table 15. Signalized highway generalized service volume table (continuation).

Number Lanes	% Green Time	Speed Limit	Level of Service			
			B Service Volume	C Service Volume	D Service Volume	E Service Volume
8	55	35	77,700	85,500	92,900	105,100
		40	77,200	83,300	90,400	99,800
		45	76,100	82,600	88,500	98,300
		50	75,700	81,100	86,900	94,700
		55	76,700	82,000	87,800	95,600
		60	77,500	82,700	88,500	96,400
	60	35	85,100	93,600	101,600	115,000
		40	84,500	91,200	99,000	109,100
		45	83,300	90,400	96,800	107,500
		50	82,900	88,800	95,100	103,600
		55	84,000	89,700	96,000	104,600
		60	84,900	90,600	96,900	105,400
	65	35	92,600	101,700	110,400	124,900
		40	91,900	99,100	107,500	118,500
		45	90,700	98,200	105,200	116,800
		50	90,200	96,500	103,300	112,600
		55	91,400	97,500	104,400	113,600
		60	92,300	98,400	105,200	114,500
	70	35	100,100	109,900	119,200	134,800
		40	99,300	107,100	116,100	128,000
		45	98,000	106,100	113,600	126,100
		50	97,600	104,200	111,600	121,600
		55	98,800	105,400	112,700	122,700
		60	99,800	106,400	113,700	123,700
	75	35	107,600	118,100	128,100	144,800
		40	106,800	115,100	124,800	137,500
		45	105,400	114,100	122,100	135,500
		50	104,900	112,100	119,900	130,600
		55	106,200	113,300	121,100	131,900
		60	107,300	114,300	122,200	132,900
	80	35	115,200	126,300	137,000	—
		40	114,400	123,100	133,500	297,000
		45	112,900	122,100	130,600	144,900
		50	112,300	119,900	128,300	139,700
		55	113,700	121,200	129,600	141,000
		60	114,800	122,300	130,700	142,100

Table 16. Stop sign-controlled highways generalized service volume table.

Land Use	Functional System	Level of Service			
		B Service Volume	C Service Volume	D Service Volume	E Service Volume
Rural	Princ. Arterial	7,600	11,100	12,400	13,600
	Minor Arterial	6,800	10,200	11,500	12,600
	Collector	5,900	9,300	10,600	11,700
Urban	Princ. Arterial	5,200	8,500	9,800	10,900
	Minor Arterial	1,900	5,200	6,400	7,400
	Collector		2,800	4,000	4,800

Table 17. Rural two-lane highways generalized service volume table.

Speed Limit	Terrain	Truck Pct.	Level of Service		
			B Service Volume	C Service Volume	D Service Volume
45	Flat	0	3,600	8,700	13,900
		2	3,500	8,700	13,900
		4	3,500	8,700	13,900
		6	3,500	8,700	13,900
		8	3,400	8,600	13,900
		10	3,400	8,600	13,900
	Rolling	0	3,600	8,700	13,900
		2	3,500	8,600	13,900
		4	3,400	8,500	13,900
		6	3,300	8,400	13,900
		8	3,300	8,200	13,900
		10	3,200	8,100	13,900
	Mountainous	0	3,600	8,700	13,900
		2	3,200	7,700	12,300
		4	2,800	7,000	11,100
		6	2,600	6,300	10,100
		8	2,400	5,800	9,300
		10	2,200	5,400	8,500
50	Flat	0	8,700	13,900	19,000
		2	8,700	13,900	19,000
		4	8,700	13,900	19,000

Table 17. Rural two-lane highways generalized service volume table (continuation).

Speed Limit	Terrain	Truck Pct.	Level of Service		
			B Service Volume	C Service Volume	D Service Volume
50	Flat	6	8,700	13,900	19,000
		8	8,600	13,900	19,000
		10	8,600	13,900	19,000
	Rolling	0	8,700	13,900	19,000
		2	8,600	13,900	19,000
		4	8,500	13,900	19,000
		6	8,400	13,900	19,000
		8	8,200	13,900	19,000
		10	8,100	13,900	19,000
	Mountainous	0	8,700	13,900	19,000
		2	7,700	12,300	16,900
		4	7,000	11,100	15,200
		6	6,300	10,100	13,900
		8	5,800	9,300	12,700
		10	5,400	8,500	11,700
55	Flat	0	13,900	19,000	24,200
		2	13,900	19,000	24,200
		4	13,900	19,000	24,200
		6	13,900	19,000	24,200
		8	13,900	19,000	24,200
		10	13,900	19,000	24,200
	Rolling	0	13,900	19,000	24,200
		2	13,900	19,000	24,200
		4	13,900	19,000	24,200
		6	13,900	19,000	24,200
		8	13,900	19,000	24,200
		10	13,900	19,000	24,200
	Mountainous	0	13,900	19,000	24,200
		2	12,300	16,900	21,500
		4	11,100	15,200	19,400
		6	10,100	13,900	17,600
		8	9,300	12,700	16,100
		10	8,500	11,700	14,900

Table 17. Rural two-lane highways generalized service volume table (continuation).

Speed Limit	Terrain	Truck Pct.	Level of Service		
			B Service Volume	C Service Volume	D Service Volume
60	Flat	0	19,000	24,200	29,300
		2	19,000	24,200	29,300
		4	19,000	24,200	29,300
		6	19,000	24,200	29,300
		8	19,000	24,200	29,300
		10	19,000	24,200	29,300
	Rolling	0	19,000	24,200	29,300
		2	19,000	24,200	29,300
		4	19,000	24,200	29,300
		6	19,000	24,200	29,300
		8	19,000	24,200	29,300
		10	19,000	24,200	29,300
	Mountainous	0	19,000	24,200	29,300
		2	16,900	21,500	26,100
		4	15,200	19,400	23,500
		6	13,900	17,600	21,400
		8	12,700	16,100	19,600
		10	11,700	14,900	18,100
65	Flat	0	24,200	29,300	34,500
		2	24,200	29,300	34,500
		4	24,200	29,300	34,500
		6	24,200	29,300	34,500
		8	24,200	29,300	34,500
		10	24,200	29,300	34,500
	Rolling	0	24,200	29,300	34,500
		2	24,200	29,300	34,500
		4	24,200	29,300	34,500
		6	24,200	29,300	34,500
		8	24,200	29,300	34,500
		10	24,200	29,300	34,500
	Mountainous	0	24,200	29,300	34,500
		2	21,500	26,100	30,700
		4	19,400	23,500	27,600
		6	17,600	21,400	25,100
		8	16,100	19,600	23,000
		10	14,900	18,100	21,300

Federal Highway Administration
Office of Policy and Governmental Affairs
1200 New Jersey Avenue, SE
Washington, DC 20590

<https://www.fhwa.dot.gov/policy/>

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Any opinions, findings and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the FHWA.

Appendix B – Traffic Counts



National Data & Surveying Services

Intersection Turning Movement Count

Location: S E St & W Bardsley Ave
City: Tulare
Control: Signalized

Project ID: 24-060015-003
Date: 8/20/2024

Data - Totals

NS/EW Streets:	S E St				S E St				W Bardsley Ave				W Bardsley Ave					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL	
	7:00 AM	2	5	21	0	15	4	0	0	0	41	2	0	11	25	9	0	135
	7:15 AM	10	13	26	0	14	3	7	0	3	42	1	0	10	45	13	0	187
	7:30 AM	18	19	31	0	22	13	7	0	5	65	5	0	8	62	22	0	277
	7:45 AM	32	30	28	0	33	20	9	0	5	91	14	0	12	61	28	0	363
	8:00 AM	13	14	29	0	28	20	6	0	6	79	21	0	16	45	30	0	307
	8:15 AM	7	12	21	0	25	12	5	0	6	66	10	0	17	50	20	0	251
	8:30 AM	1	9	10	0	24	14	3	0	3	40	4	0	6	46	14	0	174
	8:45 AM	0	8	11	0	14	5	5	0	7	44	4	0	18	36	18	0	170
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	83	110	177	0	175	91	42	0	35	468	61	0	98	370	154	0	1864	
	22.43%	29.73%	47.84%	0.00%	56.82%	29.55%	13.64%	0.00%	6.21%	82.98%	10.82%	0.00%	15.76%	59.49%	24.76%	0.00%		
PEAK HR :	07:30 AM - 08:30 AM																TOTAL	
PEAK HR VOL :	70	75	109	0	108	65	27	0	22	301	50	0	53	218	100	0	1198	
PEAK HR FACTOR :	0.547	0.625	0.879	0.000	0.818	0.813	0.750	0.000	0.917	0.827	0.595	0.000	0.779	0.879	0.833	0.000	0.825	
	0.706				0.806				0.848				0.918					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL	
	4:00 PM	3	19	22	0	22	23	11	0	3	60	13	0	25	53	20	0	274
	4:15 PM	3	13	22	0	17	22	2	0	13	66	6	0	31	55	25	0	275
	4:30 PM	6	13	23	0	22	17	5	0	9	71	11	0	23	66	29	0	295
	4:45 PM	4	18	19	0	18	25	5	0	11	55	10	0	25	46	20	0	256
	5:00 PM	3	8	20	0	21	7	8	0	3	64	13	0	44	49	18	0	258
	5:15 PM	8	14	23	0	21	18	4	0	8	74	7	0	42	60	18	0	297
	5:30 PM	3	12	24	0	21	12	4	0	5	63	7	0	31	69	20	0	271
	5:45 PM	3	16	26	0	18	10	2	0	5	59	9	0	29	46	29	0	252
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	33	113	179	0	160	134	41	0	57	512	76	0	250	444	179	0	2178	
	10.15%	34.77%	55.08%	0.00%	47.76%	40.00%	12.24%	0.00%	8.84%	79.38%	11.78%	0.00%	28.64%	50.86%	20.50%	0.00%		
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	21	53	85	0	82	67	22	0	31	264	41	0	134	221	85	0	1106	
PEAK HR FACTOR :	0.656	0.736	0.924	0.000	0.932	0.670	0.688	0.000	0.705	0.892	0.788	0.000	0.761	0.837	0.733	0.000	0.931	
	0.883				0.891				0.923				0.917					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Rd 96/S Pratt St & Paige Ave/W Paige Ave
City: Tulare
Control: 4-Way Stop

Project ID: 24-060015-001
Date: 8/20/2024

Data - Totals

NS/EW Streets:	Rd 96/S Pratt St				Rd 96/S Pratt St				Paige Ave/W Paige Ave				Paige Ave/W Paige Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	12	4	6	0	1	14	4	0	1	24	13	0	5	22	2	0	108
7:15 AM	14	12	5	0	1	8	1	0	3	17	10	0	4	23	6	0	104
7:30 AM	21	19	11	0	2	15	6	0	1	23	15	0	6	36	3	0	158
7:45 AM	10	27	9	0	1	12	6	0	4	30	11	1	5	19	6	0	141
8:00 AM	7	18	8	0	2	24	1	0	4	14	20	0	11	29	3	0	141
8:15 AM	21	27	10	0	5	15	0	0	2	32	13	0	11	24	1	0	161
8:30 AM	4	11	12	0	2	9	1	0	3	26	6	0	7	26	4	0	111
8:45 AM	6	13	5	0	2	4	1	0	3	20	6	0	5	16	0	0	81
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	95	131	66	0	16	101	20	0	21	186	94	1	54	195	25	0	1005
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	59	91	38	0	10	66	13	0	11	99	59	1	33	108	13	0	601
PEAK HR FACTOR :	0.702	0.843	0.864	0.000	0.500	0.688	0.542	0.000	0.688	0.773	0.738	0.250	0.750	0.750	0.542	0.000	0.933
	0.810				0.824				0.904				0.856				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	15	29	13	0	1	14	0	0	7	29	5	0	12	26	5	0	156
4:15 PM	10	33	3	0	0	9	2	0	3	26	10	0	9	26	7	0	138
4:30 PM	15	33	4	0	2	10	3	0	1	29	9	0	11	38	6	0	161
4:45 PM	12	22	8	0	6	16	1	0	3	27	15	0	9	23	3	0	145
5:00 PM	17	20	5	0	1	12	0	0	4	21	7	0	5	28	2	0	122
5:15 PM	10	21	6	0	3	17	1	0	4	20	17	0	7	26	5	0	137
5:30 PM	10	16	4	0	2	16	0	0	2	23	6	0	9	17	7	0	112
5:45 PM	13	17	7	0	1	11	0	0	4	24	9	0	4	19	2	0	111
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	102	191	50	0	16	105	7	0	28	199	78	0	66	203	37	0	1082
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	52	117	28	0	9	49	6	0	14	111	39	0	41	113	21	0	600
PEAK HR FACTOR :	0.867	0.886	0.538	0.000	0.375	0.766	0.500	0.000	0.500	0.957	0.650	0.000	0.854	0.743	0.750	0.000	0.932
	0.864				0.696				0.911				0.795				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S K St & E Paige Ave
City: Tulare
Control: Signalized

Project ID: 24-060015-002
Date: 8/20/2024

Data - Totals

NS/EW Streets:	S K St				S K St				E Paige Ave				E Paige Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
7:00 AM	1	26	7	0	6	16	3	0	8	20	8	0	8	29	22	0	154
7:15 AM	3	20	5	0	15	30	7	0	6	21	6	0	10	28	22	0	173
7:30 AM	5	31	7	0	10	30	8	0	10	24	6	0	13	41	23	0	208
7:45 AM	3	48	5	0	15	36	3	0	23	29	13	0	12	30	43	0	260
8:00 AM	3	38	5	0	9	26	16	0	15	14	3	0	7	42	40	0	218
8:15 AM	6	39	7	0	13	34	9	0	16	35	5	0	15	22	17	0	218
8:30 AM	5	48	3	0	14	18	6	0	10	31	4	0	12	25	27	0	203
8:45 AM	4	37	8	0	12	25	8	0	5	16	8	0	9	24	19	0	175
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	8.24%	78.85%	12.91%	0.00%	25.47%	58.27%	16.26%	0.00%	27.68%	56.55%	15.77%	0.00%	15.93%	44.63%	39.44%	0.00%	1609
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	17	156	24	0	47	126	36	0	64	102	27	0	47	135	123	0	904
PEAK HR FACTOR :	0.708	0.813	0.857	0.000	0.783	0.875	0.563	0.000	0.696	0.729	0.519	0.000	0.783	0.804	0.715	0.000	0.869
	0.879				0.933				0.742				0.857				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
4:00 PM	6	35	11	0	17	25	15	0	17	39	5	0	5	32	20	0	227
4:15 PM	5	30	12	0	15	21	10	0	14	21	9	0	6	37	33	0	213
4:30 PM	9	41	19	0	17	24	14	0	10	34	3	0	6	39	15	0	231
4:45 PM	4	40	11	0	23	16	10	0	15	36	4	0	2	24	18	0	203
5:00 PM	9	41	16	0	15	15	14	0	13	21	4	0	6	20	14	0	188
5:15 PM	9	42	8	0	16	19	9	0	6	23	1	0	4	27	15	0	179
5:30 PM	7	20	6	0	18	13	10	0	13	30	2	0	5	28	17	0	169
5:45 PM	1	18	10	0	10	18	5	0	11	24	1	0	6	24	17	0	145
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	12.20%	65.12%	22.68%	0.00%	35.50%	40.92%	23.58%	0.00%	27.81%	64.04%	8.15%	0.00%	9.52%	55.00%	35.48%	0.00%	1555
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	24	146	53	0	72	86	49	0	56	130	21	0	19	132	86	0	874
PEAK HR FACTOR :	0.667	0.890	0.697	0.000	0.783	0.860	0.817	0.000	0.824	0.833	0.583	0.000	0.792	0.846	0.652	0.000	0.946
	0.808				0.908				0.848				0.780				

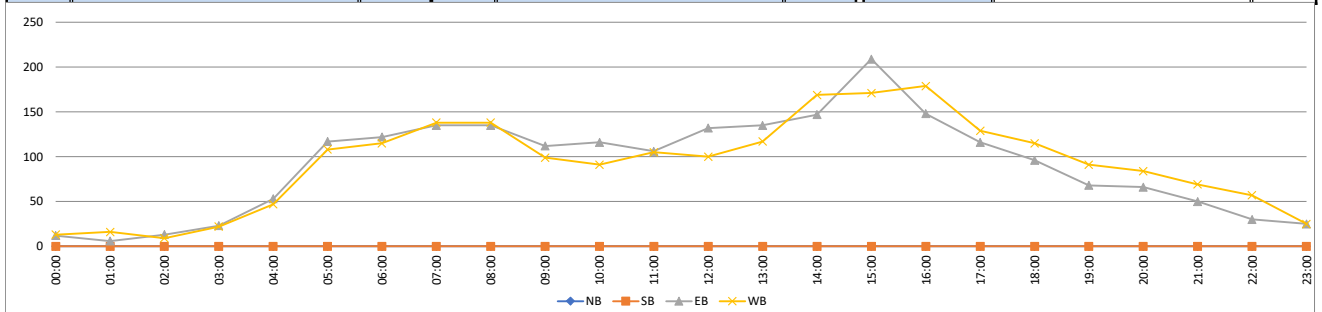
VOLUME

W Paige Ave Bet Rd 96/S Pratt St & S I St

Day: Tuesday
Date: 8/20/2024

City: Tulare
Project #: CA24_060016_001

DAILY TOTALS						NB		SB		EB		WB		Total		DAILY TOTALS					
						0		0		2,172		2,207		4,379							
15-Minutes Interval												Hourly Intervals									
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL				
0:00			4	2	6	12:00			31	27	58	00:00 01:00			12	13	25				
0:15			1	3	4	12:15			35	18	53	01:00 02:00			6	16	22				
0:30			5	6	11	12:30			35	24	59	02:00 03:00			13	9	22				
0:45			2	2	4	12:45			31	31	62	03:00 04:00			23	22	45				
1:00			3	6	9	13:00			24	24	48	04:00 05:00			53	47	100				
1:15			2	4	6	13:15			24	34	58	05:00 06:00			117	108	225				
1:30			1	4	5	13:30			47	34	81	06:00 07:00			122	115	237				
1:45			0	2	2	13:45			40	25	65	07:00 08:00			135	138	273				
2:00			1	5	6	14:00			22	35	57	08:00 09:00			135	138	273				
2:15			3	1	4	14:15			34	31	65	09:00 10:00			112	99	211				
2:30			4	1	5	14:30			40	47	87	10:00 11:00			116	91	207				
2:45			5	2	7	14:45			51	56	107	11:00 12:00			106	105	211				
3:00			3	5	8	15:00			53	42	95	12:00 13:00			132	100	232				
3:15			9	8	17	15:15			54	38	92	13:00 14:00			135	117	252				
3:30			4	4	8	15:30			46	46	92	14:00 15:00			147	169	316				
3:45			7	5	12	15:45			56	45	101	15:00 16:00			209	171	380				
4:00			6	5	11	16:00			43	45	88	16:00 17:00			148	179	327				
4:15			8	11	19	16:15			27	41	68	17:00 18:00			116	129	245				
4:30			20	11	31	16:30			37	53	90	18:00 19:00			96	115	211				
4:45			19	20	39	16:45			41	40	81	19:00 20:00			68	91	159				
5:00			18	17	35	17:00			26	32	58	20:00 21:00			66	84	150				
5:15			21	13	34	17:15			29	37	66	21:00 22:00			50	69	119				
5:30			35	45	80	17:30			31	35	66	22:00 23:00			30	57	87				
5:45			43	33	76	17:45			30	25	55	23:00 00:00			25	25	50				
6:00			27	28	55	18:00			22	42	64	STATISTICS									
6:15			23	28	51	18:15			27	31	58		NB	SB	EB	WB	TOTAL				
6:30			38	29	67	18:30			21	22	43	Peak Period	00:00	to	12:00						
6:45			34	30	64	18:45			26	20	46	Volume			950	901	1851				
7:00			32	26	58	19:00			18	15	33	Peak Hour			7:45	7:15	7:30				
7:15			23	34	57	19:15			8	25	33	Peak Volume			153	158	306				
7:30			37	49	86	19:30			17	24	41	Peak Hour Factor			0.814	0.806	0.890				
7:45			43	29	72	19:45			25	27	52				12:00	to	00:00				
8:00			23	46	69	20:00			14	33	47	Peak Period									
8:15			47	32	79	20:15			14	16	30	Volume			1222	1306	2528				
8:30			40	38	78	20:30			23	22	45	Peak Hour			15:00	15:45	14:45				
8:45			25	22	47	20:45			15	13	28	Peak Volume			209	184	386				
9:00			28	32	60	21:00			10	17	27	Peak Hour Factor			0.933	0.868	0.902				
9:15			27	18	45	21:15			17	16	33				07:00	to	09:00				
9:30			22	29	51	21:30			14	24	38	Peak Period									
9:45			35	20	55	21:45			9	12	21	Volume			270	276	546				
10:00			31	27	58	22:00			4	14	18	Peak Hour			7:45	7:15	7:30				
10:15			27	26	53	22:15			6	13	19	Peak Volume			153	158	306				
10:30			28	15	43	22:30			10	16	26	Peak Hour Factor			0.814	0.806	0.890				
10:45			30	23	53	22:45			10	14	24				16:00	to	18:00				
11:00			34	25	59	23:00			5	7	12	Peak Period									
11:15			25	24	49	23:15			9	4	13	Volume			264	308	572				
11:30			22	24	46	23:30			8	6	14	Peak Hour			16:00	16:00	16:00				
11:45			25	32	57	23:45			3	8	11	Peak Volume			148	179	327				
TOTALS	0	0	950	901	1851	TOTALS	0	0	1222	1306	2528	Peak Hour Factor			0.860	0.844	0.908				
SPLIT %	0%	0%	51%	49%	42%	SPLIT %	0%	0%	48%	52%	58%										



Appendix C – Synchro Worksheets

























EXISTING CONDITIONS

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	301	50	53	218	100	70	75	109	108	65	27
Future Volume (veh/h)	22	301	50	53	218	100	70	75	109	108	65	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	354	59	58	237	109	99	106	154	133	80	33
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.71	0.71	0.71	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	286	507	85	243	393	181	743	971	823	669	653	269
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1027	1551	258	965	1203	553	1270	1856	1572	1111	1248	515
Grp Volume(v), veh/h	26	0	413	58	0	346	99	106	154	133	0	113
Grp Sat Flow(s),veh/h/ln	1027	0	1809	965	0	1756	1270	1856	1572	1111	0	1763
Q Serve(g_s), s	1.3	0.0	12.0	3.4	0.0	9.9	2.6	1.7	3.1	4.1	0.0	2.0
Cycle Q Clear(g_c), s	11.2	0.0	12.0	15.3	0.0	9.9	4.6	1.7	3.1	5.9	0.0	2.0
Prop In Lane	1.00		0.14	1.00		0.32	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	286	0	592	243	0	574	743	971	823	669	0	923
V/C Ratio(X)	0.09	0.00	0.70	0.24	0.00	0.60	0.13	0.11	0.19	0.20	0.00	0.12
Avail Cap(c_a), veh/h	794	0	1488	721	0	1444	743	971	823	669	0	923
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	17.7	24.3	0.0	17.0	8.5	7.2	7.6	8.7	0.0	7.3
Incr Delay (d2), s/veh	0.1	0.0	1.5	0.5	0.0	1.0	0.4	0.2	0.5	0.7	0.0	0.3
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	0.3	0.0	4.5	0.7	0.0	3.5	0.6	0.6	0.9	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.8	0.0	19.2	24.8	0.0	18.0	8.8	7.5	8.1	9.4	0.0	7.6
LnGrp LOS	C		B	C		B	A	A	A	A		A
Approach Vol, veh/h		439			404			359			246	
Approach Delay, s/veh		19.3			19.0			8.1			8.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		24.2		36.0		24.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		31.5		49.5		31.5		49.5				
Max Q Clear Time (g_c+I1), s		6.6		14.0		7.9		17.3				
Green Ext Time (p_c), s		1.3		2.7		1.1		2.3				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				14.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	102	27	47	135	123	17	156	24	47	126	36
Future Volume (veh/h)	64	102	27	47	135	123	17	156	24	47	126	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	86	138	36	55	157	143	19	177	27	51	135	39
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	111	333	87	87	197	180	40	1175	176	83	1106	309
Arrive On Green	0.06	0.23	0.23	0.05	0.22	0.22	0.02	0.38	0.38	0.05	0.41	0.41
Sat Flow, veh/h	1767	1419	370	1767	894	815	1767	3074	461	1767	2721	761
Grp Volume(v), veh/h	86	0	174	55	0	300	19	100	104	51	86	88
Grp Sat Flow(s),veh/h/ln	1767	0	1789	1767	0	1709	1767	1763	1772	1767	1763	1719
Q Serve(g_s), s	3.0	0.0	5.2	1.9	0.0	10.4	0.7	2.3	2.4	1.8	1.9	2.0
Cycle Q Clear(g_c), s	3.0	0.0	5.2	1.9	0.0	10.4	0.7	2.3	2.4	1.8	1.9	2.0
Prop In Lane	1.00		0.21	1.00		0.48	1.00		0.26	1.00		0.44
Lane Grp Cap(c), veh/h	111	0	420	87	0	377	40	674	677	83	717	699
V/C Ratio(X)	0.77	0.00	0.41	0.63	0.00	0.80	0.48	0.15	0.15	0.61	0.12	0.13
Avail Cap(c_a), veh/h	352	0	927	240	0	777	155	674	677	240	717	699
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	0.0	20.3	29.3	0.0	23.1	30.3	12.7	12.7	29.3	11.6	11.6
Incr Delay (d2), s/veh	10.7	0.0	0.7	7.4	0.0	3.8	8.7	0.5	0.5	7.2	0.3	0.4
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	1.4	0.0	1.9	0.9	0.0	4.0	0.3	0.8	0.8	0.8	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.6	0.0	21.0	36.7	0.0	26.9	39.0	13.2	13.2	36.5	11.9	12.0
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h	260			355			223			225		
Approach Delay, s/veh	27.2			28.4			15.4			17.5		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	28.5	7.6	19.2	5.9	30.0	8.5	18.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	22.5	8.5	32.5	5.5	25.5	12.5	28.5				
Max Q Clear Time (g_c+I1), s	3.8	4.4	3.9	7.2	2.7	4.0	5.0	12.4				
Green Ext Time (p_c), s	0.0	0.8	0.0	0.8	0.0	0.8	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	23.1											
HCM 6th LOS	C											

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	99	59	33	108	13	59	91	38	10	66	13
Future Vol, veh/h	12	99	59	33	108	13	59	91	38	10	66	13
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.81	0.81	0.81	0.82	0.82	0.82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	109	65	38	126	15	73	112	47	12	80	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	9.6			9.8			10.3			9.1		
HCM LOS	A			A			B			A		

Lane	NBLn1		EBLn1		WBLn1		SBLn1	
Vol Left, %	31%		7%		21%		11%	
Vol Thru, %	48%		58%		70%		74%	
Vol Right, %	20%		35%		8%		15%	
Sign Control	Stop		Stop		Stop		Stop	
Traffic Vol by Lane	188		170		154		89	
LT Vol	59		12		33		10	
Through Vol	91		99		108		66	
RT Vol	38		59		13		13	
Lane Flow Rate	232		187		179		109	
Geometry Grp	1		1		1		1	
Degree of Util (X)	0.317		0.251		0.25		0.153	
Departure Headway (Hd)	4.923		4.835		5.023		5.085	
Convergence, Y/N	Yes		Yes		Yes		Yes	
Cap	724		736		707		697	
Service Time	3.001		2.914		3.104		3.177	
HCM Lane V/C Ratio	0.32		0.254		0.253		0.156	
HCM Control Delay, s/veh	10.3		9.6		9.8		9.1	
HCM Lane LOS	B		A		A		A	
HCM 95th-tile Q	1.4		1		1		0.5	

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	264	41	134	221	85	21	53	85	82	67	22
Future Volume (veh/h)	31	264	41	134	221	85	21	53	85	82	67	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	287	45	146	240	92	24	60	97	92	75	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	323	548	86	328	447	171	727	938	795	712	673	224
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1040	1566	246	1040	1278	490	1285	1856	1572	1220	1332	444
Grp Volume(v), veh/h	34	0	332	146	0	332	24	60	97	92	0	100
Grp Sat Flow(s),veh/h/ln	1040	0	1811	1040	0	1767	1285	1856	1572	1220	0	1776
Q Serve(g_s), s	1.7	0.0	9.1	8.1	0.0	9.4	0.6	1.0	2.0	2.6	0.0	1.8
Cycle Q Clear(g_c), s	11.1	0.0	9.1	17.2	0.0	9.4	2.5	1.0	2.0	3.6	0.0	1.8
Prop In Lane	1.00		0.14	1.00		0.28	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	323	0	634	328	0	618	727	938	795	712	0	898
V/C Ratio(X)	0.11	0.00	0.52	0.45	0.00	0.54	0.03	0.06	0.12	0.13	0.00	0.11
Avail Cap(c_a), veh/h	785	0	1439	790	0	1404	727	938	795	712	0	898
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	16.1	23.0	0.0	16.2	8.7	7.9	8.1	8.8	0.0	8.1
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.9	0.0	0.7	0.1	0.1	0.3	0.4	0.0	0.3
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	0.4	0.0	3.3	1.8	0.0	3.3	0.2	0.4	0.6	0.6	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.8	0.0	16.8	23.9	0.0	16.9	8.8	8.0	8.4	9.2	0.0	8.3
LnGrp LOS	C		B	C		B	A	A	A	A		A
Approach Vol, veh/h	366			478			181			192		
Approach Delay, s/veh	17.2			19.1			8.3			8.7		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	36.0			26.3			36.0			26.3		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	31.5			49.5			31.5			49.5		
Max Q Clear Time (g_c+I1), s	4.5			13.1			5.6			19.2		
Green Ext Time (p_c), s	0.6			2.2			0.8			2.6		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	15.3											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	130	21	19	132	86	24	146	53	72	86	49
Future Volume (veh/h)	56	130	21	19	132	86	24	146	53	72	86	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	66	153	25	24	169	110	30	180	65	79	95	54
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.81	0.81	0.81	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	95	358	59	48	214	139	57	1032	360	104	955	507
Arrive On Green	0.05	0.23	0.23	0.03	0.20	0.20	0.03	0.40	0.40	0.06	0.43	0.43
Sat Flow, veh/h	1767	1556	254	1767	1049	683	1767	2563	895	1767	2224	1182
Grp Volume(v), veh/h	66	0	178	24	0	279	30	122	123	79	74	75
Grp Sat Flow(s),veh/h/ln	1767	0	1810	1767	0	1733	1767	1763	1695	1767	1763	1643
Q Serve(g_s), s	2.4	0.0	5.4	0.9	0.0	9.8	1.1	2.8	3.0	2.8	1.6	1.8
Cycle Q Clear(g_c), s	2.4	0.0	5.4	0.9	0.0	9.8	1.1	2.8	3.0	2.8	1.6	1.8
Prop In Lane	1.00		0.14	1.00		0.39	1.00		0.53	1.00		0.72
Lane Grp Cap(c), veh/h	95	0	417	48	0	353	57	710	682	104	757	705
V/C Ratio(X)	0.69	0.00	0.43	0.50	0.00	0.79	0.53	0.17	0.18	0.76	0.10	0.11
Avail Cap(c_a), veh/h	290	0	862	179	0	717	207	710	682	317	757	705
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	21.0	30.7	0.0	24.2	30.5	12.3	12.3	29.7	10.9	10.9
Incr Delay (d2), s/veh	8.6	0.0	0.7	7.9	0.0	4.0	7.3	0.5	0.6	10.7	0.3	0.3
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	1.1	0.0	2.0	0.4	0.0	3.9	0.5	1.0	1.0	1.4	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.4	0.0	21.7	38.6	0.0	28.2	37.8	12.8	12.9	40.4	11.2	11.2
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h	244			303			275			228		
Approach Delay, s/veh	26.3			29.0			15.6			21.3		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	30.3	6.2	19.3	6.6	32.0	8.0	17.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.5	23.5	6.5	30.5	7.5	27.5	10.5	26.5				
Max Q Clear Time (g_c+I1), s	4.8	5.0	2.9	7.4	3.1	3.8	4.4	11.8				
Green Ext Time (p_c), s	0.1	1.0	0.0	0.8	0.0	0.7	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	23.2											
HCM 6th LOS	C											

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection													
Intersection Delay, s/veh		10											
Intersection LOS		A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	14	111	39	41	113	21	52	117	28	9	49	6	
Future Vol, veh/h	14	111	39	41	113	21	52	117	28	9	49	6	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.86	0.86	0.86	0.70	0.70	0.70	
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	
Mvmt Flow	15	122	43	51	141	26	60	136	33	13	70	9	
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0	
Approach	EB			WB			NB			SB			
Opposing Approach	WB			EB			SB			NB			
Opposing Lanes	1			1			1			1			
Conflicting Approach Left	SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach Right	NB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay, s/veh	9.6			10.2			10.5			9.1			
HCM LOS	A			B			B			A			























Lane	NBLn1	EBLn1	WBLn1	SBLn1	
Vol Left, %	26%	9%	23%	14%	
Vol Thru, %	59%	68%	65%	77%	
Vol Right, %	14%	24%	12%	9%	
Sign Control	Stop	Stop	Stop	Stop	
Traffic Vol by Lane	197	164	175	64	
LT Vol	52	14	41	9	
Through Vol	117	111	113	49	
RT Vol	28	39	21	6	
Lane Flow Rate	229	180	219	91	
Geometry Grp	1	1	1	1	
Degree of Util (X)	0.319	0.246	0.302	0.135	
Departure Headway (Hd)	5.008	4.916	4.962	5.311	
Convergence, Y/N	Yes	Yes	Yes	Yes	
Cap	710	721	715	679	
Service Time	3.096	3.008	3.05	3.311	
HCM Lane V/C Ratio	0.323	0.25	0.306	0.134	
HCM Control Delay, s/veh	10.5	9.6	10.2	9.1	
HCM Lane LOS	B	A	B	A	
HCM 95th-tile Q	1.4	1	1.3	0.5	

OPENING YEAR WITHOUT PROJECT

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave





















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	301	51	61	218	100	74	84	135	108	68	27
Future Volume (veh/h)	22	301	51	61	218	100	74	84	135	108	68	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	354	60	66	237	109	104	118	190	133	84	33
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.71	0.71	0.71	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	293	516	87	249	401	184	731	962	815	635	657	258
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1027	1546	262	964	1203	553	1265	1856	1572	1063	1268	498
Grp Volume(v), veh/h	26	0	414	66	0	346	104	118	190	133	0	117
Grp Sat Flow(s),veh/h/ln	1027	0	1808	964	0	1756	1265	1856	1572	1063	0	1766
Q Serve(g_s), s	1.3	0.0	12.0	3.9	0.0	9.9	2.8	2.0	4.0	4.5	0.0	2.1
Cycle Q Clear(g_c), s	11.2	0.0	12.0	15.9	0.0	9.9	4.9	2.0	4.0	6.5	0.0	2.1
Prop In Lane	1.00		0.14	1.00		0.32	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	293	0	603	249	0	586	731	962	815	635	0	915
V/C Ratio(X)	0.09	0.00	0.69	0.26	0.00	0.59	0.14	0.12	0.23	0.21	0.00	0.13
Avail Cap(c_a), veh/h	787	0	1473	713	0	1430	731	962	815	635	0	915
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	17.5	24.4	0.0	16.8	8.8	7.5	8.0	9.2	0.0	7.5
Incr Delay (d2), s/veh	0.1	0.0	1.4	0.6	0.0	1.0	0.4	0.3	0.7	0.8	0.0	0.3
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	0.3	0.0	4.5	0.8	0.0	3.5	0.7	0.7	1.2	1.0	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.6	0.0	18.9	24.9	0.0	17.8	9.2	7.8	8.7	9.9	0.0	7.8
LnGrp LOS	C		B	C		B	A	A	A	A		A
Approach Vol, veh/h	440			412			412			250		
Approach Delay, s/veh	19.1			18.9			8.6			9.0		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	36.0			24.8			36.0			24.8		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	31.5			49.5			31.5			49.5		
Max Q Clear Time (g_c+I1), s	6.9			14.0			8.5			17.9		
Green Ext Time (p_c), s	1.6			2.7			1.2			2.4		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	14.5											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	136	31	47	146	123	18	156	24	47	126	36
Future Volume (veh/h)	64	136	31	47	146	123	18	156	24	47	126	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	86	184	42	55	170	143	20	177	27	51	135	39
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	111	354	81	87	213	179	42	1141	171	83	1074	300
Arrive On Green	0.06	0.24	0.24	0.05	0.23	0.23	0.02	0.37	0.37	0.05	0.39	0.39
Sat Flow, veh/h	1767	1462	334	1767	931	783	1767	3074	461	1767	2721	761
Grp Volume(v), veh/h	86	0	226	55	0	313	20	100	104	51	86	88
Grp Sat Flow(s),veh/h/ln	1767	0	1795	1767	0	1715	1767	1763	1772	1767	1763	1719
Q Serve(g_s), s	3.0	0.0	6.8	1.9	0.0	10.7	0.7	2.4	2.4	1.8	1.9	2.0
Cycle Q Clear(g_c), s	3.0	0.0	6.8	1.9	0.0	10.7	0.7	2.4	2.4	1.8	1.9	2.0
Prop In Lane	1.00		0.19	1.00		0.46	1.00		0.26	1.00		0.44
Lane Grp Cap(c), veh/h	111	0	435	87	0	392	42	654	658	83	696	678
V/C Ratio(X)	0.77	0.00	0.52	0.63	0.00	0.80	0.48	0.15	0.16	0.61	0.12	0.13
Avail Cap(c_a), veh/h	356	0	940	242	0	787	185	654	658	242	696	678
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	20.4	28.9	0.0	22.6	29.9	13.0	13.0	29.0	12.0	12.0
Incr Delay (d2), s/veh	10.7	0.0	1.0	7.3	0.0	3.8	8.4	0.5	0.5	7.1	0.4	0.4
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	1.4	0.0	2.5	0.9	0.0	4.1	0.4	0.8	0.8	0.8	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.4	0.0	21.3	36.2	0.0	26.3	38.3	13.5	13.5	36.1	12.3	12.4
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h	312			368			224			225		
Approach Delay, s/veh	26.3			27.8			15.7			17.7		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	27.5	7.6	19.5	6.0	29.0	8.4	18.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	22.5	8.5	32.5	6.5	24.5	12.5	28.5				
Max Q Clear Time (g_c+I1), s	3.8	4.4	3.9	8.8	2.7	4.0	5.0	12.7				
Green Ext Time (p_c), s	0.0	0.8	0.0	1.0	0.0	0.7	0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	23.0											
HCM 6th LOS	C											

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	100	59	37	112	13	59	91	39	10	66	13
Future Vol, veh/h	12	100	59	37	112	13	59	91	39	10	66	13
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.81	0.81	0.81	0.82	0.82	0.82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	110	65	43	130	15	73	112	48	12	80	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	9.6			9.9			10.4			9.2		
HCM LOS	A			A			B			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	7%	23%	11%
Vol Thru, %	48%	58%	69%	74%
Vol Right, %	21%	35%	8%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	189	171	162	89
LT Vol	59	12	37	10
Through Vol	91	100	112	66
RT Vol	39	59	13	13
Lane Flow Rate	233	188	188	109
Geometry Grp	1	1	1	1
Degree of Util (X)	0.321	0.254	0.264	0.154
Departure Headway (Hd)	4.949	4.858	5.038	5.118
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	719	731	706	692
Service Time	3.031	2.94	3.122	3.215
HCM Lane V/C Ratio	0.324	0.257	0.266	0.158
HCM Control Delay, s/veh	10.4	9.6	9.9	9.2
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.4	1	1.1	0.5

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	264	46	163	221	85	24	59	102	82	77	22
Future Volume (veh/h)	31	264	46	163	221	85	24	59	102	82	77	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	287	50	177	240	92	27	67	116	92	87	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	360	581	101	360	483	185	678	885	750	661	661	190
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1040	1539	268	1035	1278	490	1271	1856	1572	1191	1386	398
Grp Volume(v), veh/h	34	0	337	177	0	332	27	67	116	92	0	112
Grp Sat Flow(s),veh/h/ln	1040	0	1807	1035	0	1767	1271	1856	1572	1191	0	1784
Q Serve(g_s), s	1.6	0.0	8.8	9.8	0.0	8.9	0.7	1.2	2.6	2.8	0.0	2.2
Cycle Q Clear(g_c), s	10.5	0.0	8.8	18.6	0.0	8.9	2.9	1.2	2.6	4.0	0.0	2.2
Prop In Lane	1.00		0.15	1.00		0.28	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	360	0	683	360	0	668	678	885	750	661	0	851
V/C Ratio(X)	0.09	0.00	0.49	0.49	0.00	0.50	0.04	0.08	0.15	0.14	0.00	0.13
Avail Cap(c_a), veh/h	832	0	1504	830	0	1471	678	885	750	661	0	851
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	14.7	21.8	0.0	14.7	9.9	8.8	9.1	9.9	0.0	9.0
Incr Delay (d2), s/veh	0.1	0.0	0.6	1.0	0.0	0.6	0.1	0.2	0.4	0.4	0.0	0.3
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	0.4	0.0	3.1	2.2	0.0	3.0	0.2	0.4	0.8	0.7	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.9	0.0	15.3	22.9	0.0	15.3	10.0	9.0	9.6	10.3	0.0	9.4
LnGrp LOS	B		B	C		B	A	A	A	B		A
Approach Vol, veh/h	371			509			210			204		
Approach Delay, s/veh	15.6			17.9			9.4			9.8		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	34.0			27.9			34.0			27.9		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	29.5			51.5			29.5			51.5		
Max Q Clear Time (g_c+I1), s	4.9			12.5			6.0			20.6		
Green Ext Time (p_c), s	0.7			2.2			0.9			2.8		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	14.6											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	153	24	19	171	86	29	146	53	72	86	49
Future Volume (veh/h)	56	153	24	19	171	86	29	146	53	72	86	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	66	180	28	24	219	110	36	180	65	79	95	54
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.81	0.81	0.81	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	94	405	63	48	270	136	65	980	342	103	898	477
Arrive On Green	0.05	0.26	0.26	0.03	0.23	0.23	0.04	0.38	0.38	0.06	0.40	0.40
Sat Flow, veh/h	1767	1568	244	1767	1165	585	1767	2563	895	1767	2224	1182
Grp Volume(v), veh/h	66	0	208	24	0	329	36	122	123	79	74	75
Grp Sat Flow(s),veh/h/ln	1767	0	1812	1767	0	1750	1767	1763	1695	1767	1763	1643
Q Serve(g_s), s	2.4	0.0	6.3	0.9	0.0	11.7	1.3	3.0	3.2	2.9	1.7	1.9
Cycle Q Clear(g_c), s	2.4	0.0	6.3	0.9	0.0	11.7	1.3	3.0	3.2	2.9	1.7	1.9
Prop In Lane	1.00		0.13	1.00		0.33	1.00		0.53	1.00		0.72
Lane Grp Cap(c), veh/h	94	0	467	48	0	406	65	674	648	103	712	664
V/C Ratio(X)	0.70	0.00	0.44	0.50	0.00	0.81	0.56	0.18	0.19	0.77	0.10	0.11
Avail Cap(c_a), veh/h	283	0	897	175	0	760	175	674	648	283	712	664
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	20.4	31.5	0.0	23.8	31.1	13.4	13.5	30.5	12.2	12.2
Incr Delay (d2), s/veh	9.0	0.0	0.7	8.0	0.0	3.9	7.2	0.6	0.7	11.3	0.3	0.3
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	1.1	0.0	2.3	0.5	0.0	4.7	0.6	1.1	1.1	1.4	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.6	0.0	21.1	39.4	0.0	27.8	38.3	14.0	14.1	41.8	12.5	12.6
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h	274		353				281		228			
Approach Delay, s/veh	25.5		28.6				17.2		22.7			
Approach LOS	C		C				B		C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	29.6	6.3	21.4	6.9	31.0	8.0	19.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	22.5	6.5	32.5	6.5	26.5	10.5	28.5				
Max Q Clear Time (g_c+I1), s	4.9	5.2	2.9	8.3	3.3	3.9	4.4	13.7				
Green Ext Time (p_c), s	0.1	1.0	0.0	0.9	0.0	0.6	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	23.8											
HCM 6th LOS	C											

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection													
Intersection Delay, s/veh		10.2											
Intersection LOS		B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	14	116	39	44	116	21	52	117	33	9	49	6	
Future Vol, veh/h	14	116	39	44	116	21	52	117	33	9	49	6	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.86	0.86	0.86	0.70	0.70	0.70	
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	
Mvmt Flow	15	127	43	55	145	26	60	136	38	13	70	9	
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0	
Approach	EB			WB			NB			SB			
Opposing Approach	WB			EB			SB			NB			
Opposing Lanes	1			1			1			1			
Conflicting Approach Left	SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach Right	NB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay, s/veh	9.8			10.4			10.6			9.2			
HCM LOS	A			B			B			A			























Lane	NBLn1		EBLn1		WBLn1		SBLn1		
Vol Left, %	26%		8%		24%		14%		
Vol Thru, %	58%		69%		64%		77%		
Vol Right, %	16%		23%		12%		9%		
Sign Control	Stop		Stop		Stop		Stop		
Traffic Vol by Lane	202		169		181		64		
LT Vol	52		14		44		9		
Through Vol	117		116		116		49		
RT Vol	33		39		21		6		
Lane Flow Rate	235		186		226		91		
Geometry Grp	1		1		1		1		
Degree of Util (X)	0.328		0.255		0.314		0.136		
Departure Headway (Hd)	5.031		4.95		4.992		5.363		
Convergence, Y/N	Yes		Yes		Yes		Yes		
Cap	707		717		710		673		
Service Time	3.122		3.045		3.084		3.363		
HCM Lane V/C Ratio	0.332		0.259		0.318		0.135		
HCM Control Delay, s/veh	10.6		9.8		10.4		9.2		
HCM Lane LOS	B		A		B		A		
HCM 95th-tile Q	1.4		1		1.3		0.5		

OPENING YEAR PLUS PROJECT

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave





















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	315	52	68	223	100	78	91	153	108	70	29
Future Volume (veh/h)	27	315	52	68	223	100	78	91	153	108	70	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	32	371	61	74	242	109	110	128	215	133	86	36
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.71	0.71	0.71	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	306	542	89	253	422	190	708	940	797	600	629	263
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1022	1554	256	949	1212	546	1259	1856	1572	1029	1242	520
Grp Volume(v), veh/h	32	0	432	74	0	351	110	128	215	133	0	122
Grp Sat Flow(s),veh/h/ln	1022	0	1810	949	0	1757	1259	1856	1572	1029	0	1762
Q Serve(g_s), s	1.6	0.0	12.7	4.5	0.0	10.1	3.2	2.3	4.9	4.9	0.0	2.3
Cycle Q Clear(g_c), s	11.7	0.0	12.7	17.2	0.0	10.1	5.4	2.3	4.9	7.2	0.0	2.3
Prop In Lane	1.00		0.14	1.00		0.31	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	306	0	631	253	0	612	708	940	797	600	0	893
V/C Ratio(X)	0.10	0.00	0.69	0.29	0.00	0.57	0.16	0.14	0.27	0.22	0.00	0.14
Avail Cap(c_a), veh/h	763	0	1441	677	0	1399	708	940	797	600	0	893
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	17.3	24.7	0.0	16.5	9.6	8.1	8.8	10.0	0.0	8.1
Incr Delay (d2), s/veh	0.1	0.0	1.3	0.6	0.0	0.8	0.5	0.3	0.8	0.9	0.0	0.3
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	0.4	0.0	4.7	0.9	0.0	3.5	0.8	0.8	1.5	1.1	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.4	0.0	18.7	25.3	0.0	17.3	10.0	8.4	9.6	10.9	0.0	8.4
LnGrp LOS	C		B	C		B	B	A	A	B		A
Approach Vol, veh/h	464		425			453			255			
Approach Delay, s/veh	18.9		18.7			9.4			9.7			
Approach LOS	B		B			A			A			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	36.0		26.2		36.0		26.2					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	31.5		49.5		31.5		49.5					
Max Q Clear Time (g_c+I1), s	7.4		14.7		9.2		19.2					
Green Ext Time (p_c), s	1.7		2.9		1.2		2.5					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	14.7											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	184	37	47	162	123	20	156	24	47	126	36
Future Volume (veh/h)	64	184	37	47	162	123	20	156	24	47	126	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	86	249	50	55	188	143	23	177	27	51	135	39
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	111	379	76	87	233	177	46	1128	169	83	1054	295
Arrive On Green	0.06	0.25	0.25	0.05	0.24	0.24	0.03	0.37	0.37	0.05	0.39	0.39
Sat Flow, veh/h	1767	1500	301	1767	978	744	1767	3074	461	1767	2721	761
Grp Volume(v), veh/h	86	0	299	55	0	331	23	100	104	51	86	88
Grp Sat Flow(s),veh/h/ln	1767	0	1801	1767	0	1722	1767	1763	1772	1767	1763	1719
Q Serve(g_s), s	3.0	0.0	9.4	1.9	0.0	11.5	0.8	2.4	2.5	1.8	2.0	2.1
Cycle Q Clear(g_c), s	3.0	0.0	9.4	1.9	0.0	11.5	0.8	2.4	2.5	1.8	2.0	2.1
Prop In Lane	1.00		0.17	1.00		0.43	1.00		0.26	1.00		0.44
Lane Grp Cap(c), veh/h	111	0	455	87	0	411	46	647	651	83	683	666
V/C Ratio(X)	0.77	0.00	0.66	0.64	0.00	0.81	0.50	0.15	0.16	0.62	0.13	0.13
Avail Cap(c_a), veh/h	321	0	926	238	0	803	182	647	651	238	683	666
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	0.0	21.2	29.5	0.0	22.7	30.4	13.4	13.5	29.6	12.5	12.5
Incr Delay (d2), s/veh	10.8	0.0	1.6	7.5	0.0	3.8	7.9	0.5	0.5	7.3	0.4	0.4
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	1.5	0.0	3.5	0.9	0.0	4.4	0.4	0.8	0.9	0.8	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.0	0.0	22.8	37.0	0.0	26.5	38.3	13.9	14.0	36.8	12.8	12.9
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h	385			386			227			225		
Approach Delay, s/veh	26.6			28.0			16.4			18.3		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	27.7	7.6	20.5	6.2	29.0	8.5	19.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	22.5	8.5	32.5	6.5	24.5	11.5	29.5				
Max Q Clear Time (g_c+I1), s	3.8	4.5	3.9	11.4	2.8	4.1	5.0	13.5				
Green Ext Time (p_c), s	0.0	0.8	0.0	1.4	0.0	0.7	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	23.6											
HCM 6th LOS	C											

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	101	59	41	116	20	59	92	40	31	68	15
Future Vol, veh/h	13	101	59	41	116	20	59	92	40	31	68	15
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.81	0.81	0.81	0.82	0.82	0.82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	111	65	48	135	23	73	114	49	38	83	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	10			10.5			10.8			9.8		
HCM LOS	A			B			B			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	8%	23%	27%
Vol Thru, %	48%	58%	66%	60%
Vol Right, %	21%	34%	11%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	173	177	114
LT Vol	59	13	41	31
Through Vol	92	101	116	68
RT Vol	40	59	20	15
Lane Flow Rate	236	190	206	139
Geometry Grp	1	1	1	1
Degree of Util (X)	0.338	0.269	0.299	0.206
Departure Headway (Hd)	5.156	5.089	5.225	5.344
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	698	705	687	671
Service Time	3.183	3.118	3.254	3.376
HCM Lane V/C Ratio	0.338	0.27	0.3	0.207
HCM Control Delay, s/veh	10.8	10	10.5	9.8
HCM Lane LOS	B	A	B	A
HCM 95th-tile Q	1.5	1.1	1.3	0.8

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	274	50	187	237	85	26	64	116	82	85	27
Future Volume (veh/h)	34	274	50	187	237	85	26	64	116	82	85	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	298	54	203	258	92	30	73	132	92	96	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	380	622	113	382	531	189	627	837	709	614	611	191
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1023	1529	277	1021	1306	466	1255	1856	1572	1168	1356	424
Grp Volume(v), veh/h	37	0	352	203	0	350	30	73	132	92	0	126
Grp Sat Flow(s),veh/h/ln	1023	0	1806	1021	0	1772	1255	1856	1572	1168	0	1779
Q Serve(g_s), s	1.8	0.0	9.1	11.6	0.0	9.2	0.9	1.4	3.2	3.1	0.0	2.6
Cycle Q Clear(g_c), s	11.0	0.0	9.1	20.6	0.0	9.2	3.6	1.4	3.2	4.5	0.0	2.6
Prop In Lane	1.00		0.15	1.00		0.26	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	380	0	734	382	0	720	627	837	709	614	0	802
V/C Ratio(X)	0.10	0.00	0.48	0.53	0.00	0.49	0.05	0.09	0.19	0.15	0.00	0.16
Avail Cap(c_a), veh/h	814	0	1500	815	0	1472	627	837	709	614	0	802
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	13.8	21.4	0.0	13.9	11.3	9.9	10.4	11.2	0.0	10.3
Incr Delay (d2), s/veh	0.1	0.0	0.5	1.1	0.0	0.5	0.1	0.2	0.6	0.5	0.0	0.4
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	0.4	0.0	3.2	2.5	0.0	3.1	0.2	0.5	1.0	0.8	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.0	0.0	14.3	22.6	0.0	14.4	11.4	10.1	11.0	11.7	0.0	10.7
LnGrp LOS	B		B	C		B	B	B	B	B		B
Approach Vol, veh/h	389			553			235			218		
Approach Delay, s/veh	14.7			17.4			10.8			11.1		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	33.0			30.2			33.0			30.2		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	28.5			52.5			28.5			52.5		
Max Q Clear Time (g_c+I1), s	5.6			13.0			6.5			22.6		
Green Ext Time (p_c), s	0.8			2.3			1.0			3.1		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	14.5											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	185	28	19	225	86	36	146	53	72	86	49
Future Volume (veh/h)	56	185	28	19	225	86	36	146	53	72	86	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	66	218	33	24	288	110	44	180	65	79	95	54
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.81	0.81	0.81	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	92	459	70	47	341	130	73	935	326	102	848	451
Arrive On Green	0.05	0.29	0.29	0.03	0.27	0.27	0.04	0.36	0.36	0.06	0.38	0.38
Sat Flow, veh/h	1767	1574	238	1767	1279	489	1767	2563	895	1767	2224	1182
Grp Volume(v), veh/h	66	0	251	24	0	398	44	122	123	79	74	75
Grp Sat Flow(s),veh/h/ln	1767	0	1813	1767	0	1768	1767	1763	1695	1767	1763	1643
Q Serve(g_s), s	2.6	0.0	7.9	0.9	0.0	14.8	1.7	3.3	3.5	3.1	1.9	2.1
Cycle Q Clear(g_c), s	2.6	0.0	7.9	0.9	0.0	14.8	1.7	3.3	3.5	3.1	1.9	2.1
Prop In Lane	1.00		0.13	1.00		0.28	1.00		0.53	1.00		0.72
Lane Grp Cap(c), veh/h	92	0	529	47	0	471	73	643	618	102	672	626
V/C Ratio(X)	0.72	0.00	0.47	0.51	0.00	0.84	0.60	0.19	0.20	0.78	0.11	0.12
Avail Cap(c_a), veh/h	267	0	848	165	0	725	165	643	618	267	672	626
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	20.2	33.4	0.0	24.1	32.8	15.1	15.1	32.3	13.9	13.9
Incr Delay (d2), s/veh	10.1	0.0	0.7	8.2	0.0	5.6	7.8	0.7	0.7	11.8	0.3	0.4
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	1.2	0.0	2.9	0.5	0.0	6.2	0.8	1.2	1.2	1.5	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.6	0.0	20.9	41.6	0.0	29.7	40.6	15.7	15.8	44.1	14.2	14.3
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h		317			422			289			228	
Approach Delay, s/veh		25.4			30.4			19.6			24.6	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	29.9	6.4	24.8	7.4	31.0	8.1	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	22.5	6.5	32.5	6.5	26.5	10.5	28.5				
Max Q Clear Time (g_c+I1), s	5.1	5.5	2.9	9.9	3.7	4.1	4.6	16.8				
Green Ext Time (p_c), s	0.1	1.0	0.0	1.2	0.0	0.6	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			25.6									
HCM 6th LOS			C									

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024























Intersection													
Intersection Delay, s/veh		10.8											
Intersection LOS		B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	17	120	39	46	118	45	52	120	37	23	51	8	↔↔
Future Vol, veh/h	17	120	39	46	118	45	52	120	37	23	51	8	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.86	0.86	0.86	0.70	0.70	0.70	
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	
Mvmt Flow	19	132	43	58	148	56	60	140	43	33	73	11	
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0	
Approach													
Opposing Approach	WB			WB			NB			SB			
Opposing Lanes	1			1			1			NB			
Conflicting Approach Left	SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach Right	NB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay, s/veh	10.3			11.3			11.3			9.8			
HCM LOS	B			B			B			A			
Lane													
Vol Left, %	25%			10%			22%			28%			
Vol Thru, %	57%			68%			56%			62%			
Vol Right, %	18%			22%			22%			10%			
Sign Control	Stop			Stop			Stop			Stop			
Traffic Vol by Lane	209			176			209			82			
LT Vol	52			17			46			23			
Through Vol	120			120			118			51			
RT Vol	37			39			45			8			
Lane Flow Rate	243			193			261			117			
Geometry Grp	1			1			1			1			
Degree of Util (X)	0.358			0.281			0.374			0.181			
Departure Headway (Hd)	5.296			5.234			5.16			5.56			
Convergence, Y/N	Yes			Yes			Yes			Yes			
Cap	680			687			698			645			
Service Time	3.326			3.271			3.195			3.597			
HCM Lane V/C Ratio	0.357			0.281			0.374			0.181			
HCM Control Delay, s/veh	11.3			10.3			11.3			9.8			
HCM Lane LOS	B			B			B			A			
HCM 95th-tile Q	1.6			1.2			1.7			0.7			

5-YEAR HORIZON WITHOUT PROJECT

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	332	56	67	241	110	81	92	146	119	75	30
Future Volume (veh/h)	24	332	56	67	241	110	81	92	146	119	75	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	28	391	66	73	262	120	114	130	206	147	93	37
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.71	0.71	0.71	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	293	558	94	245	435	199	687	929	787	590	632	251
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	993	1547	261	927	1205	552	1250	1856	1572	1036	1263	502
Grp Volume(v), veh/h	28	0	457	73	0	382	114	130	206	147	0	130
Grp Sat Flow(s),veh/h/ln	993	0	1809	927	0	1756	1250	1856	1572	1036	0	1765
Q Serve(g_s), s	1.5	0.0	14.0	4.7	0.0	11.5	3.5	2.4	4.9	5.8	0.0	2.6
Cycle Q Clear(g_c), s	13.1	0.0	14.0	18.8	0.0	11.5	6.1	2.4	4.9	8.2	0.0	2.6
Prop In Lane	1.00		0.14	1.00		0.31	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	293	0	653	245	0	634	687	929	787	590	0	883
V/C Ratio(X)	0.10	0.00	0.70	0.30	0.00	0.60	0.17	0.14	0.26	0.25	0.00	0.15
Avail Cap(c_a), veh/h	676	0	1351	603	0	1312	687	929	787	590	0	883
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	17.7	25.8	0.0	16.9	10.4	8.7	9.3	10.9	0.0	8.7
Incr Delay (d2), s/veh	0.1	0.0	1.4	0.7	0.0	0.9	0.5	0.3	0.8	1.0	0.0	0.4
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	0.3	0.0	5.2	1.0	0.0	4.0	0.9	0.9	1.5	1.3	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.4	0.0	19.1	26.4	0.0	17.9	10.9	9.0	10.1	11.9	0.0	9.1
LnGrp LOS	C		B	C		B	B	A	B	B		A
Approach Vol, veh/h		485			455			450			277	
Approach Delay, s/veh		19.3			19.2			10.0			10.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		27.9		37.0		27.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.5		48.5		32.5		48.5				
Max Q Clear Time (g_c+I1), s		8.1		16.0		10.2		20.8				
Green Ext Time (p_c), s		1.7		3.1		1.3		2.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	147	34	52	160	136	20	172	26	52	139	40
Future Volume (veh/h)	71	147	34	52	160	136	20	172	26	52	139	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	96	199	46	60	186	158	23	195	30	56	149	43
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	124	387	89	90	228	194	46	1093	166	87	1031	288
Arrive On Green	0.07	0.27	0.27	0.05	0.25	0.25	0.03	0.36	0.36	0.05	0.38	0.38
Sat Flow, veh/h	1767	1458	337	1767	927	787	1767	3070	465	1767	2720	761
Grp Volume(v), veh/h	96	0	245	60	0	344	23	111	114	56	95	97
Grp Sat Flow(s),veh/h/ln	1767	0	1795	1767	0	1714	1767	1763	1772	1767	1763	1719
Q Serve(g_s), s	3.5	0.0	7.5	2.2	0.0	12.2	0.8	2.8	2.9	2.0	2.3	2.4
Cycle Q Clear(g_c), s	3.5	0.0	7.5	2.2	0.0	12.2	0.8	2.8	2.9	2.0	2.3	2.4
Prop In Lane	1.00		0.19	1.00		0.46	1.00		0.26	1.00		0.44
Lane Grp Cap(c), veh/h	124	0	476	90	0	422	46	628	631	87	668	651
V/C Ratio(X)	0.77	0.00	0.51	0.67	0.00	0.82	0.50	0.18	0.18	0.65	0.14	0.15
Avail Cap(c_a), veh/h	314	0	875	260	0	782	178	628	631	232	668	651
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	20.2	30.1	0.0	23.0	31.1	14.3	14.3	30.2	13.2	13.2
Incr Delay (d2), s/veh	9.7	0.0	0.9	8.1	0.0	3.9	8.0	0.6	0.6	7.8	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	1.6	0.0	2.7	1.0	0.0	4.7	0.4	1.0	1.0	1.0	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.2	0.0	21.1	38.3	0.0	26.9	39.1	14.9	15.0	38.0	13.6	13.7
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h		341			404			248			248	
Approach Delay, s/veh		26.2			28.6			17.2			19.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	27.5	7.8	21.7	6.2	29.0	9.1	20.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	22.5	9.5	31.5	6.5	24.5	11.5	29.5				
Max Q Clear Time (g_c+I1), s	4.0	4.9	4.2	9.5	2.8	4.4	5.5	14.2				
Green Ext Time (p_c), s	0.0	0.9	0.0	1.1	0.0	0.8	0.1	1.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			23.8									
HCM 6th LOS			C									

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	110	65	40	123	14	65	100	43	11	73	14
Future Vol, veh/h	13	110	65	40	123	14	65	100	43	11	73	14
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.81	0.81	0.81	0.82	0.82	0.82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	121	71	47	143	16	80	123	53	13	89	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB	WB			NB			SB				
Opposing Approach	WB	EB			SB			NB				
Opposing Lanes	1	1			1			1				
Conflicting Approach Left	SB	NB			EB			WB				
Conflicting Lanes Left	1	1			1			1				
Conflicting Approach Right	NB	SB			WB			EB				
Conflicting Lanes Right	1	1			1			1				
HCM Control Delay, s/veh	10.2	10.6			11.2			9.6				
HCM LOS	B	B			B			A				

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	7%	23%	11%
Vol Thru, %	48%	59%	69%	74%
Vol Right, %	21%	35%	8%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	188	177	98
LT Vol	65	13	40	11
Through Vol	100	110	123	73
RT Vol	43	65	14	14
Lane Flow Rate	257	207	206	120
Geometry Grp	1	1	1	1
Degree of Util (X)	0.369	0.293	0.302	0.179
Departure Headway (Hd)	5.176	5.098	5.281	5.393
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	696	704	681	666
Service Time	3.205	3.127	3.31	3.427
HCM Lane V/C Ratio	0.369	0.294	0.302	0.18
HCM Control Delay, s/veh	11.2	10.2	10.6	9.6
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.7	1.2	1.3	0.6

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	291	50	177	244	94	26	65	111	91	84	24
Future Volume (veh/h)	34	291	50	177	244	94	26	65	111	91	84	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	316	54	192	265	102	30	74	126	102	94	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	369	632	108	371	522	201	629	833	706	614	623	179
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1007	1544	264	1004	1276	491	1260	1856	1572	1173	1386	398
Grp Volume(v), veh/h	37	0	370	192	0	367	30	74	126	102	0	121
Grp Sat Flow(s),veh/h/ln	1007	0	1808	1004	0	1767	1260	1856	1572	1173	0	1784
Q Serve(g_s), s	1.8	0.0	9.6	11.1	0.0	9.8	0.9	1.5	3.0	3.5	0.0	2.5
Cycle Q Clear(g_c), s	11.6	0.0	9.6	20.8	0.0	9.8	3.5	1.5	3.0	4.9	0.0	2.5
Prop In Lane	1.00		0.15	1.00		0.28	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	369	0	739	371	0	723	629	833	706	614	0	801
V/C Ratio(X)	0.10	0.00	0.50	0.52	0.00	0.51	0.05	0.09	0.18	0.17	0.00	0.15
Avail Cap(c_a), veh/h	791	0	1496	792	0	1462	629	833	706	614	0	801
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	13.9	21.7	0.0	14.0	11.3	10.0	10.5	11.4	0.0	10.3
Incr Delay (d2), s/veh	0.1	0.0	0.5	1.1	0.0	0.6	0.1	0.2	0.6	0.6	0.0	0.4
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	0.4	0.0	3.4	2.4	0.0	3.3	0.2	0.5	1.0	0.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.4	0.0	14.5	22.8	0.0	14.5	11.5	10.2	11.0	12.0	0.0	10.7
LnGrp LOS	B		B	C		B	B	B	B	B		B
Approach Vol, veh/h		407			559			230			223	
Approach Delay, s/veh		14.8			17.4			10.8			11.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.0		30.4		33.0		30.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		28.5		52.5		28.5		52.5				
Max Q Clear Time (g_c+I1), s		5.5		13.6		6.9		22.8				
Green Ext Time (p_c), s		0.8		2.5		1.0		3.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				14.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	167	26	21	185	95	31	161	59	79	95	54
Future Volume (veh/h)	62	167	26	21	185	95	31	161	59	79	95	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	196	31	27	237	122	38	199	73	87	104	59
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.81	0.81	0.81	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	98	430	68	52	287	148	67	930	330	112	869	462
Arrive On Green	0.06	0.27	0.27	0.03	0.25	0.25	0.04	0.36	0.36	0.06	0.39	0.39
Sat Flow, veh/h	1767	1564	247	1767	1154	594	1767	2550	906	1767	2224	1182
Grp Volume(v), veh/h	73	0	227	27	0	359	38	136	136	87	81	82
Grp Sat Flow(s),veh/h/ln	1767	0	1811	1767	0	1749	1767	1763	1693	1767	1763	1643
Q Serve(g_s), s	2.7	0.0	7.0	1.0	0.0	13.1	1.4	3.6	3.7	3.3	2.0	2.2
Cycle Q Clear(g_c), s	2.7	0.0	7.0	1.0	0.0	13.1	1.4	3.6	3.7	3.3	2.0	2.2
Prop In Lane	1.00		0.14	1.00		0.34	1.00		0.54	1.00		0.72
Lane Grp Cap(c), veh/h	98	0	498	52	0	435	67	643	617	112	689	642
V/C Ratio(X)	0.75	0.00	0.46	0.52	0.00	0.82	0.57	0.21	0.22	0.77	0.12	0.13
Avail Cap(c_a), veh/h	255	0	896	155	0	766	171	643	617	276	689	642
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	20.2	32.2	0.0	23.9	31.8	14.7	14.8	31.0	13.1	13.2
Incr Delay (d2), s/veh	10.7	0.0	0.7	7.8	0.0	4.0	7.4	0.7	0.8	10.7	0.3	0.4
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	1.3	0.0	2.6	0.5	0.0	5.2	0.7	1.3	1.3	1.6	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.1	0.0	20.9	40.0	0.0	27.9	39.3	15.5	15.6	41.8	13.4	13.6
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h		300			386			310			250	
Approach Delay, s/veh		26.0			28.8			18.4			23.3	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	29.1	6.5	23.0	7.0	30.8	8.2	21.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	22.3	5.9	33.3	6.5	26.3	9.7	29.5				
Max Q Clear Time (g_c+I1), s	5.3	5.7	3.0	9.0	3.4	4.2	4.7	15.1				
Green Ext Time (p_c), s	0.1	1.1	0.0	1.1	0.0	0.7	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			24.4									
HCM 6th LOS			C									

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	128	43	48	128	23	57	129	36	10	54	7
Future Vol, veh/h	15	128	43	48	128	23	57	129	36	10	54	7
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.86	0.86	0.86	0.70	0.70	0.70
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	16	141	47	60	160	29	66	150	42	14	77	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	10.4			11.2			11.5			9.6		
HCM LOS	B			B			B			A		























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	8%	24%	14%
Vol Thru, %	58%	69%	64%	76%
Vol Right, %	16%	23%	12%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	186	199	71
LT Vol	57	15	48	10
Through Vol	129	128	128	54
RT Vol	36	43	23	7
Lane Flow Rate	258	204	249	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.379	0.296	0.362	0.157
Departure Headway (Hd)	5.28	5.208	5.239	5.558
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	681	689	687	644
Service Time	3.313	3.244	3.272	3.599
HCM Lane V/C Ratio	0.379	0.296	0.362	0.157
HCM Control Delay, s/veh	11.5	10.4	11.2	9.6
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.8	1.2	1.7	0.6

5-YEAR HORIZON PLUS PROJECT

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	347	57	74	245	110	85	99	168	119	77	31
Future Volume (veh/h)	29	347	57	74	245	110	85	99	168	119	77	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	408	67	80	266	120	120	139	237	147	95	38
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.71	0.71	0.71	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	305	583	96	247	454	205	667	908	770	556	617	247
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	990	1554	255	912	1211	546	1247	1856	1572	999	1261	504
Grp Volume(v), veh/h	34	0	475	80	0	386	120	139	237	147	0	133
Grp Sat Flow(s),veh/h/ln	990	0	1810	912	0	1757	1247	1856	1572	999	0	1765
Q Serve(g_s), s	1.9	0.0	14.8	5.4	0.0	11.7	3.9	2.7	6.0	6.3	0.0	2.8
Cycle Q Clear(g_c), s	13.6	0.0	14.8	20.2	0.0	11.7	6.7	2.7	6.0	9.1	0.0	2.8
Prop In Lane	1.00		0.14	1.00		0.31	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	305	0	678	247	0	659	667	908	770	556	0	864
V/C Ratio(X)	0.11	0.00	0.70	0.32	0.00	0.59	0.18	0.15	0.31	0.26	0.00	0.15
Avail Cap(c_a), veh/h	657	0	1322	572	0	1284	667	908	770	556	0	864
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	17.6	26.1	0.0	16.6	11.2	9.4	10.2	11.9	0.0	9.4
Incr Delay (d2), s/veh	0.2	0.0	1.3	0.7	0.0	0.8	0.6	0.4	1.0	1.2	0.0	0.4
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	0.4	0.0	5.5	1.1	0.0	4.1	1.0	1.0	1.9	1.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.2	0.0	18.9	26.9	0.0	17.5	11.8	9.7	11.2	13.0	0.0	9.7
LnGrp LOS	C		B	C		B	B	A	B	B		A
Approach Vol, veh/h	509			466			496			280		
Approach Delay, s/veh	19.1			19.1			10.9			11.5		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	37.0			29.4			37.0			29.4		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	32.5			48.5			32.5			48.5		
Max Q Clear Time (g_c+I1), s	8.7			16.8			11.1			22.2		
Green Ext Time (p_c), s	1.9			3.2			1.4			2.7		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	15.6											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	194	40	52	176	136	22	172	26	52	139	40
Future Volume (veh/h)	71	194	40	52	176	136	22	172	26	52	139	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	96	262	54	60	205	158	25	195	30	56	149	43
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	124	413	85	90	250	193	49	1063	161	87	1000	280
Arrive On Green	0.07	0.28	0.28	0.05	0.26	0.26	0.03	0.35	0.35	0.05	0.37	0.37
Sat Flow, veh/h	1767	1493	308	1767	972	749	1767	3070	465	1767	2720	761
Grp Volume(v), veh/h	96	0	316	60	0	363	25	111	114	56	95	97
Grp Sat Flow(s),veh/h/ln	1767	0	1800	1767	0	1721	1767	1763	1772	1767	1763	1719
Q Serve(g_s), s	3.5	0.0	10.0	2.2	0.0	12.9	0.9	2.8	2.9	2.0	2.3	2.5
Cycle Q Clear(g_c), s	3.5	0.0	10.0	2.2	0.0	12.9	0.9	2.8	2.9	2.0	2.3	2.5
Prop In Lane	1.00		0.17	1.00		0.44	1.00		0.26	1.00		0.44
Lane Grp Cap(c), veh/h	124	0	498	90	0	442	49	611	614	87	648	631
V/C Ratio(X)	0.77	0.00	0.63	0.67	0.00	0.82	0.51	0.18	0.19	0.65	0.15	0.15
Avail Cap(c_a), veh/h	313	0	901	258	0	808	177	611	614	204	648	631
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	0.0	20.6	30.3	0.0	22.7	31.1	14.8	14.8	30.3	13.7	13.8
Incr Delay (d2), s/veh	9.7	0.0	1.3	8.2	0.0	3.8	7.8	0.7	0.7	7.9	0.5	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	1.6	0.0	3.6	1.0	0.0	5.0	0.5	1.0	1.1	1.0	0.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.3	0.0	22.0	38.5	0.0	26.6	38.9	15.5	15.5	38.2	14.2	14.3
LnGrp LOS	D		C	D		C	D	B	B	D	B	B
Approach Vol, veh/h		412			423			250			248	
Approach Delay, s/veh		26.0			28.2			17.8			19.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	27.0	7.8	22.5	6.3	28.4	9.1	21.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	22.5	9.5	32.5	6.5	23.5	11.5	30.5				
Max Q Clear Time (g_c+I1), s	4.0	4.9	4.2	12.0	2.9	4.5	5.5	14.9				
Green Ext Time (p_c), s	0.0	0.9	0.0	1.5	0.0	0.8	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			24.0									
HCM 6th LOS			C									

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024























Intersection													
Intersection Delay, s/veh		11											
Intersection LOS		B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	14	111	65	44	127	21	65	101	44	32	75	17	
Future Vol, veh/h	14	111	65	44	127	21	65	101	44	32	75	17	
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.81	0.81	0.81	0.82	0.82	0.82	
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	
Mvmt Flow	15	122	71	51	148	24	80	125	54	39	91	21	
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0	
Approach	EB	WB			NB			SB			SB		
Opposing Approach	WB	EB			SB			NB			NB		
Opposing Lanes	1	1			1			1			1		
Conflicting Approach Left	SB	NB			EB			WB			WB		
Conflicting Lanes Left	1	1			1			1			1		
Conflicting Approach Right	NB	SB			WB			EB			EB		
Conflicting Lanes Right	1	1			1			1			1		
HCM Control Delay, s/veh	10.6	11.2			11.6			10.2			10.2		
HCM LOS	B	B			B			B			B		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	7%	23%	26%
Vol Thru, %	48%	58%	66%	60%
Vol Right, %	21%	34%	11%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	190	192	124
LT Vol	65	14	44	32
Through Vol	101	111	127	75
RT Vol	44	65	21	17
Lane Flow Rate	259	209	223	151
Geometry Grp	1	1	1	1
Degree of Util (X)	0.383	0.305	0.335	0.232
Departure Headway (Hd)	5.312	5.257	5.396	5.522
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	683	665	649
Service Time	3.352	3.3	3.438	3.568
HCM Lane V/C Ratio	0.383	0.306	0.335	0.233
HCM Control Delay, s/veh	11.6	10.6	11.2	10.2
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.8	1.3	1.5	0.9

HCM 6th Signalized Intersection Summary

1: E St & Bardsley Ave






















10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	301	54	201	260	94	29	69	125	91	92	30
Future Volume (veh/h)	37	301	54	201	260	94	29	69	125	91	92	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	40	327	59	218	283	102	33	78	142	102	103	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	390	670	121	393	571	206	577	785	666	569	565	187
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	990	1530	276	990	1302	469	1242	1856	1572	1152	1335	441
Grp Volume(v), veh/h	40	0	386	218	0	385	33	78	142	102	0	137
Grp Sat Flow(s),veh/h/ln	990	0	1806	990	0	1771	1242	1856	1572	1152	0	1776
Q Serve(g_s), s	2.0	0.0	9.9	13.1	0.0	10.1	1.1	1.6	3.7	3.8	0.0	3.1
Cycle Q Clear(g_c), s	12.1	0.0	9.9	23.0	0.0	10.1	4.2	1.6	3.7	5.4	0.0	3.1
Prop In Lane	1.00		0.15	1.00		0.26	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	390	0	791	393	0	776	577	785	666	569	0	752
V/C Ratio(X)	0.10	0.00	0.49	0.55	0.00	0.50	0.06	0.10	0.21	0.18	0.00	0.18
Avail Cap(c_a), veh/h	772	0	1487	774	0	1458	577	785	666	569	0	752
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	13.0	21.3	0.0	13.1	13.0	11.3	11.9	12.9	0.0	11.7
Incr Delay (d2), s/veh	0.1	0.0	0.5	1.2	0.0	0.5	0.2	0.3	0.7	0.7	0.0	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	0.4	0.0	3.4	2.7	0.0	3.3	0.3	0.6	1.2	1.0	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.6	0.0	13.5	22.5	0.0	13.6	13.2	11.5	12.6	13.6	0.0	12.2
LnGrp LOS	B		B	C		B	B	B	B	B		B
Approach Vol, veh/h		426			603			253			239	
Approach Delay, s/veh		13.9			16.8			12.4			12.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.0		33.0		32.0		33.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		27.5		53.5		27.5		53.5				
Max Q Clear Time (g_c+I1), s		6.2		14.1		7.4		25.0				
Green Ext Time (p_c), s		0.9		2.6		1.0		3.4				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				14.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

3: K St & Paige Ave

10/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	199	30	21	239	95	38	161	59	79	95	54
Future Volume (veh/h)	62	199	30	21	239	95	38	161	59	79	95	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	234	35	27	306	122	47	199	73	87	104	59
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.81	0.81	0.81	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	98	497	74	52	365	145	77	826	293	112	765	407
Arrive On Green	0.06	0.32	0.32	0.03	0.29	0.29	0.04	0.32	0.32	0.06	0.34	0.34
Sat Flow, veh/h	1767	1577	236	1767	1262	503	1767	2550	906	1767	2224	1182
Grp Volume(v), veh/h	73	0	269	27	0	428	47	136	136	87	81	82
Grp Sat Flow(s),veh/h/ln	1767	0	1813	1767	0	1765	1767	1763	1693	1767	1763	1643
Q Serve(g_s), s	2.7	0.0	8.0	1.0	0.0	15.3	1.8	3.8	4.0	3.3	2.1	2.3
Cycle Q Clear(g_c), s	2.7	0.0	8.0	1.0	0.0	15.3	1.8	3.8	4.0	3.3	2.1	2.3
Prop In Lane	1.00		0.13	1.00		0.29	1.00		0.54	1.00		0.72
Lane Grp Cap(c), veh/h	98	0	571	52	0	510	77	571	548	112	606	565
V/C Ratio(X)	0.75	0.00	0.47	0.52	0.00	0.84	0.61	0.24	0.25	0.77	0.13	0.15
Avail Cap(c_a), veh/h	250	0	977	153	0	854	182	571	548	271	606	565
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	18.5	32.1	0.0	22.4	31.6	16.6	16.7	31.0	15.1	15.2
Incr Delay (d2), s/veh	10.7	0.0	0.6	7.8	0.0	3.8	7.6	1.0	1.1	10.7	0.5	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	1.3	0.0	2.9	0.5	0.0	6.0	0.8	1.4	1.4	1.6	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.9	0.0	19.1	39.9	0.0	26.2	39.2	17.6	17.8	41.7	15.6	15.8
LnGrp LOS	D		B	D		C	D	B	B	D	B	B
Approach Vol, veh/h		342			455			319			250	
Approach Delay, s/veh		24.0			27.0			20.9			24.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	26.2	6.5	25.7	7.4	27.6	8.2	23.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.3	19.7	5.8	36.2	6.9	23.1	9.5	32.5				
Max Q Clear Time (g_c+I1), s	5.3	6.0	3.0	10.0	3.8	4.3	4.7	17.3				
Green Ext Time (p_c), s	0.1	1.0	0.0	1.3	0.0	0.7	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			24.4									
HCM 6th LOS			C									

HCM 6th AWSC

2: Pratt St & Paige Ave

10/13/2024

Intersection													
Intersection Delay, s/veh		11.7											
Intersection LOS		B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	18	132	43	51	130	48	57	132	40	24	56	8	
Future Vol, veh/h	18	132	43	51	130	48	57	132	40	24	56	8	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.86	0.86	0.86	0.70	0.70	0.70	
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	
Mvmt Flow	20	145	47	64	163	60	66	153	47	34	80	11	
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0	
Approach	EB			WB			NB			SB			
Opposing Approach	WB			EB			SB			NB			
Opposing Lanes	1			1			1			1			
Conflicting Approach Left	SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach Right	NB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay, s/veh	11			12.3			12.2			10.3			
HCM LOS	B			B			B			B			

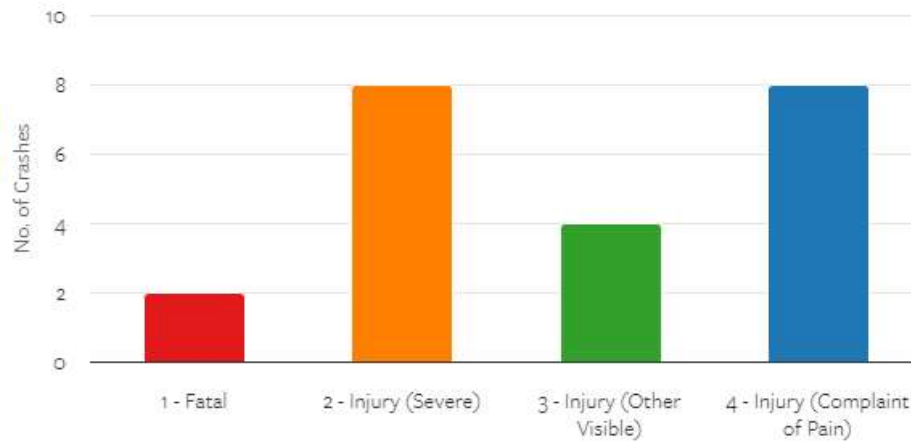
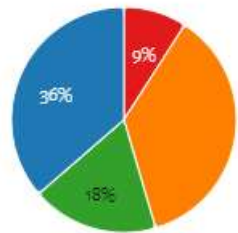
Lane	NBLn1	EBLn1	WBLn1	SBLn1	
Vol Left, %	25%	9%	22%	27%	
Vol Thru, %	58%	68%	57%	64%	
Vol Right, %	17%	22%	21%	9%	
Sign Control	Stop	Stop	Stop	Stop	
Traffic Vol by Lane	229	193	229	88	
LT Vol	57	18	51	24	
Through Vol	132	132	130	56	
RT Vol	40	43	48	8	
Lane Flow Rate	266	212	286	126	
Geometry Grp	1	1	1	1	
Degree of Util (X)	0.405	0.319	0.424	0.202	
Departure Headway (Hd)	5.474	5.419	5.333	5.781	
Convergence, Y/N	Yes	Yes	Yes	Yes	
Cap	655	662	673	619	
Service Time	3.519	3.467	3.378	3.836	
HCM Lane V/C Ratio	0.406	0.32	0.425	0.204	
HCM Control Delay, s/veh	12.2	11	12.3	10.3	
HCM Lane LOS	B	B	B	B	
HCM 95th-tile Q	2	1.4	2.1	0.8	

Appendix D – Detailed Collision Data



Number of Crashes by Crash Severity

22 Crashes



Crash Severity

● 1 - Fatal ● 2 - Injury (Severe) ● 3 - Injury (Other Visible) ● 4 - Injury (Complaint of Pain)

Show Zero



Crash Severity	Count	%
1 - Fatal	2	9.09%
2 - Injury (Severe)	8	36.36%
3 - Injury (Other Visible)	4	18.18%
4 - Injury (Complaint of Pain)	8	36.36%

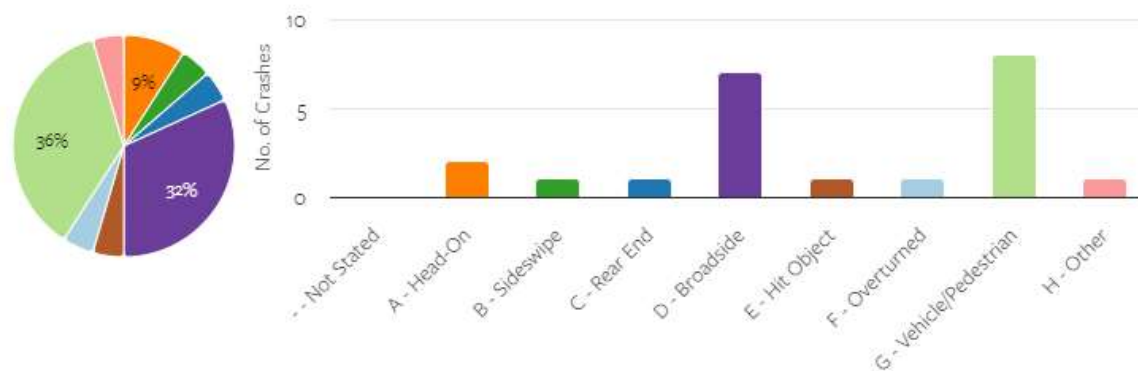


Show Zero



Number of Crashes by Type of Crash

22 Crashes



Type of Crash

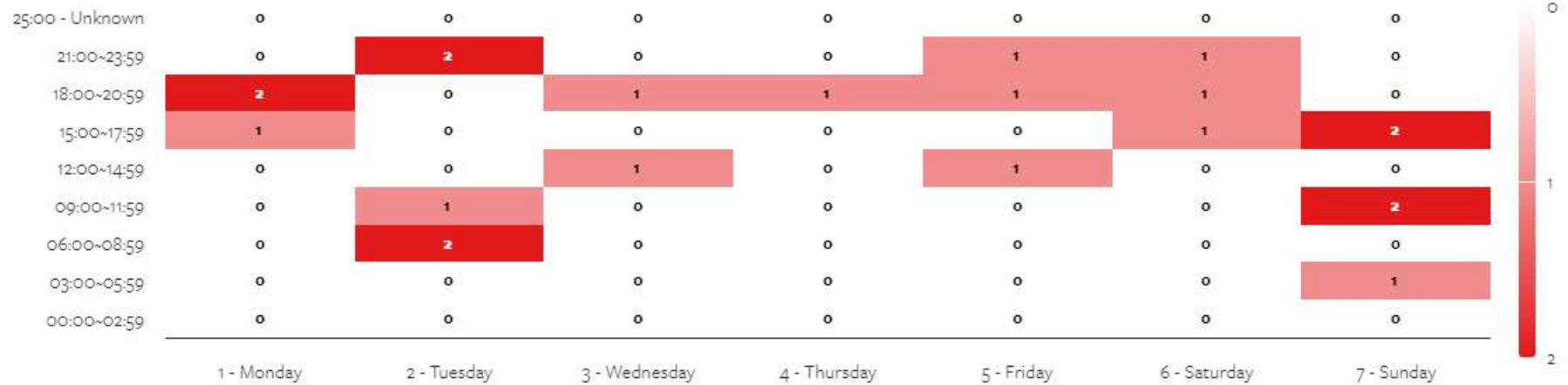


Type of Crash	Count	%
-- Not Stated	0	0.00%
A - Head-On	2	9.09%
B - Sideswipe	1	4.55%
C - Rear End	1	4.55%
D - Broadside	7	31.82%
E - Hit Object	1	4.55%
F - Overturned	1	4.55%
G - Vehicle/Pedestrian	8	36.36%
H - Other	1	4.55%



Number of Crashes per Day of Week per Time

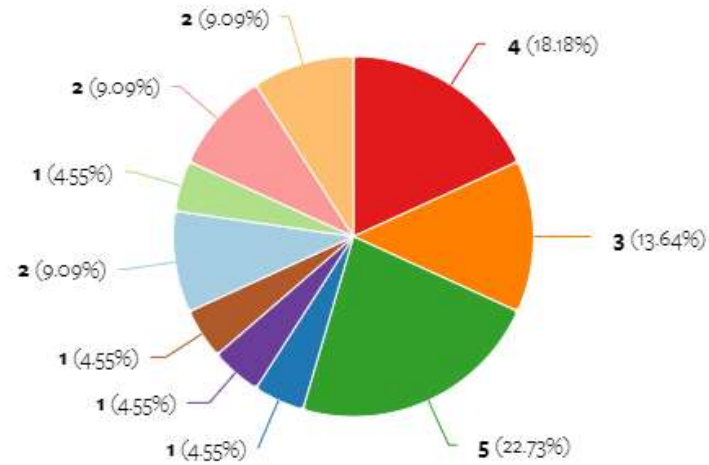
22 Crashes





Number of Crashes by PCF Violation

22 Crashes



PCF Violation

- | | | |
|--------------------------------|------------------------------------------------------------------|---------------------------|
| 00 - Unknown | 01 - Driving or Bicycling Under the Influence of Alcohol or Drug | 03 - Unsafe Speed |
| 05 - Wrong Side of Road | 06 - Improper Passing | 08 - Improper Turning |
| 09 - Automobile Right of Way | 10 - Pedestrian Right of Way | 11 - Pedestrian Violation |
| 12 - Traffic Signals and Signs | | |

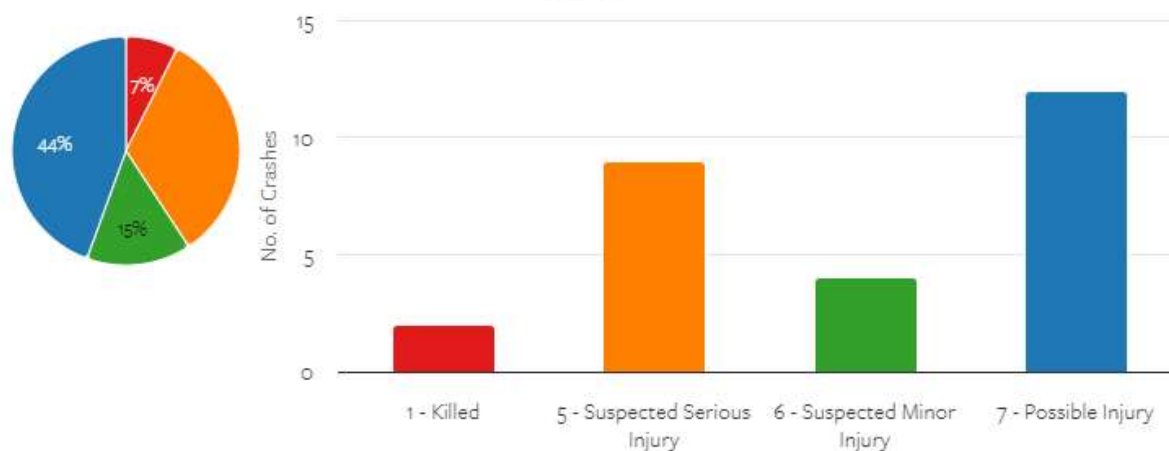


Show Zero



Number of Victims by Victim Degree of Injury

27 Victims



Victim Degree of Injury

1 - Killed 5 - Suspected Serious Injury 6 - Suspected Minor Injury 7 - Possible Injury

Victim Degree of Injury	Count	%
1 - Killed	2	7.41%
5 - Suspected Serious Injury	9	33.33%
6 - Suspected Minor Injury	4	14.81%
7 - Possible Injury	12	44.44%

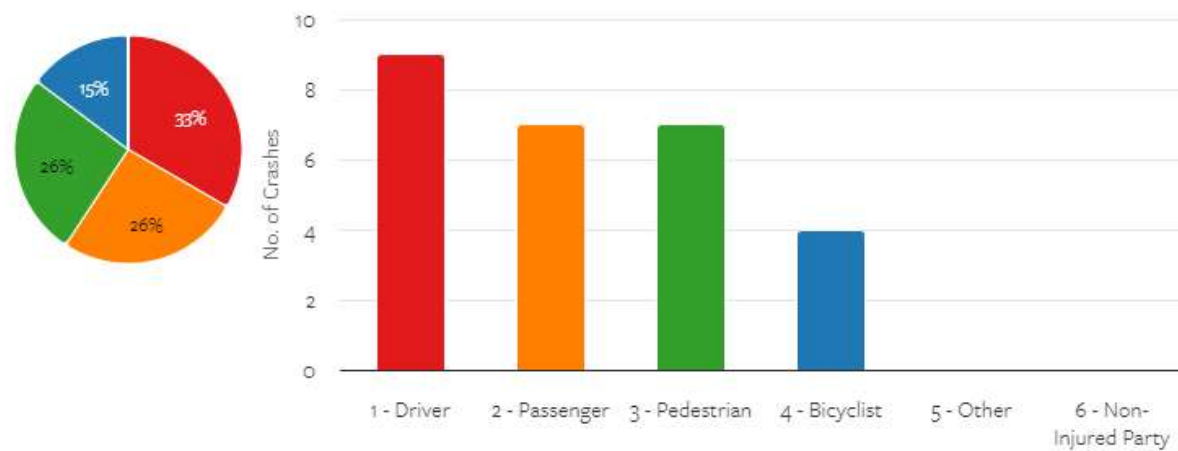


Show Zero



Number of Victims by Victim Role

27 Victims



Victim Role

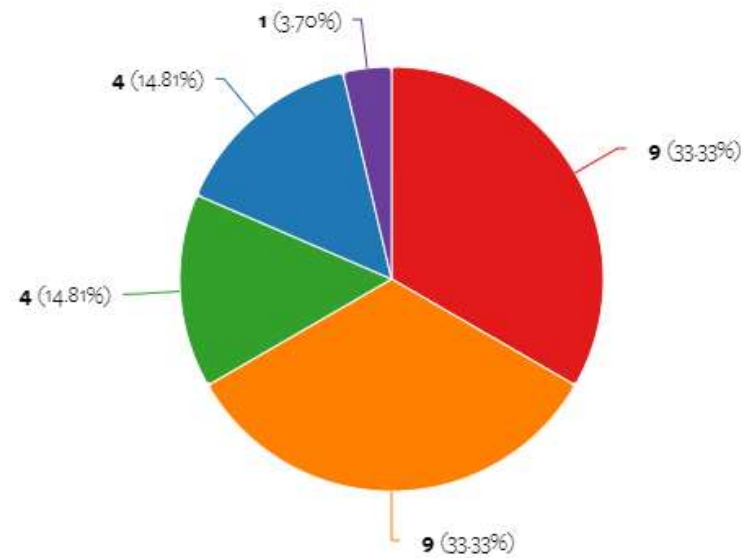
1 - Driver 2 - Passenger 3 - Pedestrian 4 - Bicyclist 5 - Other 6 - Non-Injured Party

Victim Role	Count	%
1 - Driver	9	33.33%
2 - Passenger	7	25.93%
3 - Pedestrian	7	25.93%
4 - Bicyclist	4	14.81%
5 - Other	0	0.00%



Number of Victims by Victim Safety Equipment 1

27 Victims



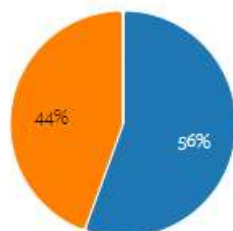
Victim Safety Equipment 1

● - or blank - Not Stated ● L - Air Bag Deployed ● M - Air Bag Not Deployed ● P - Not Required ● V - Driver, Motorcycle Helmet Not Used



Number of Victims by Victim Gender and Age

27 Victims



Appendix E – VMT Analysis



MEMORANDUM

TO: Brad Perrine, 4Creeks

FROM: Erik Ruehr, VRPA Technologies

DATE: October 15, 2024

RE: Lekkerkerker Residential Development
Vehicle Miles Traveled (VMT) Analysis

This memorandum provides a vehicle miles traveled (VMT) analysis for the proposed Lekkerkerker residential development in the City of Tulare. The analysis was conducted to meet the requirements for transportation analysis under the California Environmental Quality Act (CEQA).

BACKGROUND INFORMATION

Per the requirements of Senate Bill 743 (SB 743), VMT is the new performance measure used in CEQA transportation analysis. VMT became the required performance measure on July 1, 2020 replacing the previous performance measure which was level of service (LOS). The VMT generated by land development projects is compared to various screening criteria and significance thresholds to determine whether the level of VMT would be considered to be significant. Additional detail on this process is provided in the sections that follow.

The City of Tulare has provided guidance on the preparation of VMT analyses in a memo dated June 26, 2020 (included as an attachment to this memorandum).

SCREENING ANALYSIS

The City of Tulare's VMT guidance provides several criteria for screening a project out of the requirement to conduct a VMT analysis. Most of these criteria do not apply to the Lekkerkerker project. However, one screening criterion, map-based screening was investigated further.

A map showing average trip distance by traffic analysis zone (TAZ) is included in the City's VMT guidance based on data provided by the regional transportation model maintained by the Tulare County Association of Governments. If a project's average trip distance is 15% below the regional average, it is considered to be in a low VMT area and it is screened out of requiring a VMT analysis.

Much of the City of Tulare is in a low VMT area as shown in Figure 1 of the City's VMT guidance. However, there are isolated areas with unusually high VMT. These areas are considered to be an aberration of the modeling process rather than a true indication of VMT generation. Typically, this aberration is caused by a lack of existing development on which the model can accurately represent VMT generation.

A common method of removing the aberration from the modeling process is to use the average VMT (or trip length) of the subject TAZ where the project is located plus all adjacent TAZ's. Since the project is located in an isolated area with high VMT, this analysis was applied. Shown below is the calculation of the average trip length of the TAZ where the project is located plus all adjacent TAZ's:

<u>Location With Respect to Project TAZ</u>	<u>Average Trip Length (mi)</u>
Northwest	8.85
North	8.18
North	8.26
East	8.99
South	9.49
Southwest	8.53
West	8.93
<u>Project TAZ</u>	<u>11.78</u>
Average	9.13

Based on this analysis, the project's average trip length is 9.13 miles. Per the City's VMT guidance, any project with an average trip length of 9.76 or less is located in a low VMT area with an average trip length (and VMT) at least 15% below the regional average.

SUMMARY OF RESULTS AND CONCLUSIONS

The project is screened out of the requirement to conduct a VMT analysis on the basis of map-based screening. It has a less than significant VMT impact and no mitigation measures are required.

Please contact me if you have any questions. I can be reached by email at eruehr@vrpatechnologies.com or by phone at 858/361-7151.





Community & Economic Development Department

To: *Traci Myers, Director – Community & Economic Development Department*
Michael Miller, P.E. – City Engineer

From: *Mario Anaya, Principal Planner*

Re: *Proposed Process and Thresholds for Assessing Vehicle Miles Traveled for Development Projects Starting July 1, 2020*

Date: *June 26, 2020*

Senate Bill 743

California Senate Bill 743 (SB 743) was signed into law by Governor Brown in 2013. It required the Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts of a proposed project under CEQA. The primary goals of SB 743 are:

- Combat climate change by reducing greenhouse gas emissions and particulates from mobile (automobile) sources.
- Encourage and help streamline infill development and a diversity of uses instead of typical suburban sprawl development patterns.
- Promote multi-modal transportation networks.
- Eliminate the use of LOS impacts under CEQA as barriers used to stop or delay development of infill residential, commercial, and office projects in congested, though economically vibrant, infill areas.

OPR has decided on vehicle miles traveled (VMT) as the preferred metric to evaluate transportation impacts under CEQA, which will be mandatory and replace LOS starting July 1, 2020. Transportation and land use planning research shows that VMT used as a performance metric is a much better measure of the true environmental impacts, including secondary impacts such as GHG and AQ impacts, on the transportation system as a whole, and on a City's increasing costs of maintaining infrastructure for sprawl development.

Project Screening

Many agencies use screening thresholds to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. OPR's technical advisory suggests that VMT analysis is not needed for the following project types:

1. Projects that generate fewer than 110 trips per day
2. Projects within a ½ mile of an existing major transit stop¹ or an existing stop along a high quality transit corridor².
3. Affordable housing projects in infill locations
4. Locally serving retail
5. Transit projects, bike projects, pedestrian enhancements, livability enhancements, and street safety improvement projects.
6. Map-based screening – Residential and office projects can be considered to result in less-than-significant impacts on VMT if they are located within low VMT areas on a map or maps generated for cities or regions using VMT data modeling.

In these cases, project-generated VMT is presumed to be a less-than-significant impact under CEQA and no further detailed VMT analysis is needed. Projects that do not meet the above screening criteria are required to provide analysis of VMT, by using several acceptable VMT quantification models presented in a focused traffic study prepared by a traffic engineer or through using the California Emissions Estimator Model (CalEEMod) to estimate VMT for a project based on the number of vehicle trips generated by the type of land use and multiplying them by the average miles per trip.

Assessing Significance of Project VMT Based on VMT Thresholds

OPR recommends a threshold of significance of 15% below existing regional VMT per capita (for residential projects) or VMT per employee (for office projects). Thresholds developed by lead agencies for these projects and other types of projects should demonstrate at least 15% below average regional VMT per capita or employee from existing conditions when evaluating a project under CEQA. If a lead agency decides to use a different threshold than the 15% recommended by OPR it should do so by providing substantial evidence to support the use of a different threshold.

VMT Mitigation

When a lead agency identifies a significant impact, it must identify feasible mitigation measures that could avoid or substantially reduce that impact. Additionally, CEQA requires that an environmental impact report (EIR) identify feasible alternatives that could avoid or substantially reduce a project's significant environmental impacts. When a project results in increases in VMT above the thresholds adopted by a lead agency, it must identify feasible mitigation or alternatives that could avoid or substantially reduce a project's significant environmental impacts. VMT mitigation techniques fall into the following four main categories:

1 Pub. Resources Code, §21064.3 ("Major transit stop means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").

2 Pub. Resources Code, §21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

1. Location Design and Urban Form
2. Public Works/Transportation Infrastructure Improvements
3. Transit Upgrades
4. Transportation Demand Management

The selection of particular mitigation measures and alternatives are left to the discretion of the lead agency, and mitigation measures may vary, depending on the proposed project and significant impacts, if any. Although it is well understood what factors and measures can reduce VMT, data is not readily available to quantify these reductions. Quantifying VMT reduction strategies will be a key area of study moving forward, so that they can be used as defensible mitigation measures.

Recommended Screening Criteria & Thresholds for the City of Tulare

After reviewing OPR Guidance and examples from jurisdictions throughout the state, including new draft proposals, I'm recommending the City use map-based screening for residential and office/industrial projects, with travel forecasting data from Tulare County Association of Governments (TCAG), and apply the recommendations for VMT thresholds as shown in Table 1 below. The basis for this recommendation is based on the likely scenario that the City's VMT average is almost always lower than the countywide average, given the higher percentage of commercial, industrial, and residential land uses compared to the whole of the county, including most of the unincorporated areas. Using the countywide average as the region of comparison also captures many of the trips in between our city and others, as well as unincorporated areas. This screening criteria and the proposed thresholds are supported by TCAG's travel data modeling for the region, and correctly achieves the spirit of SB 743 in encouraging regional growth in areas with low VMT or that demonstrate at least a 15% reduction in VMT from the regional average.

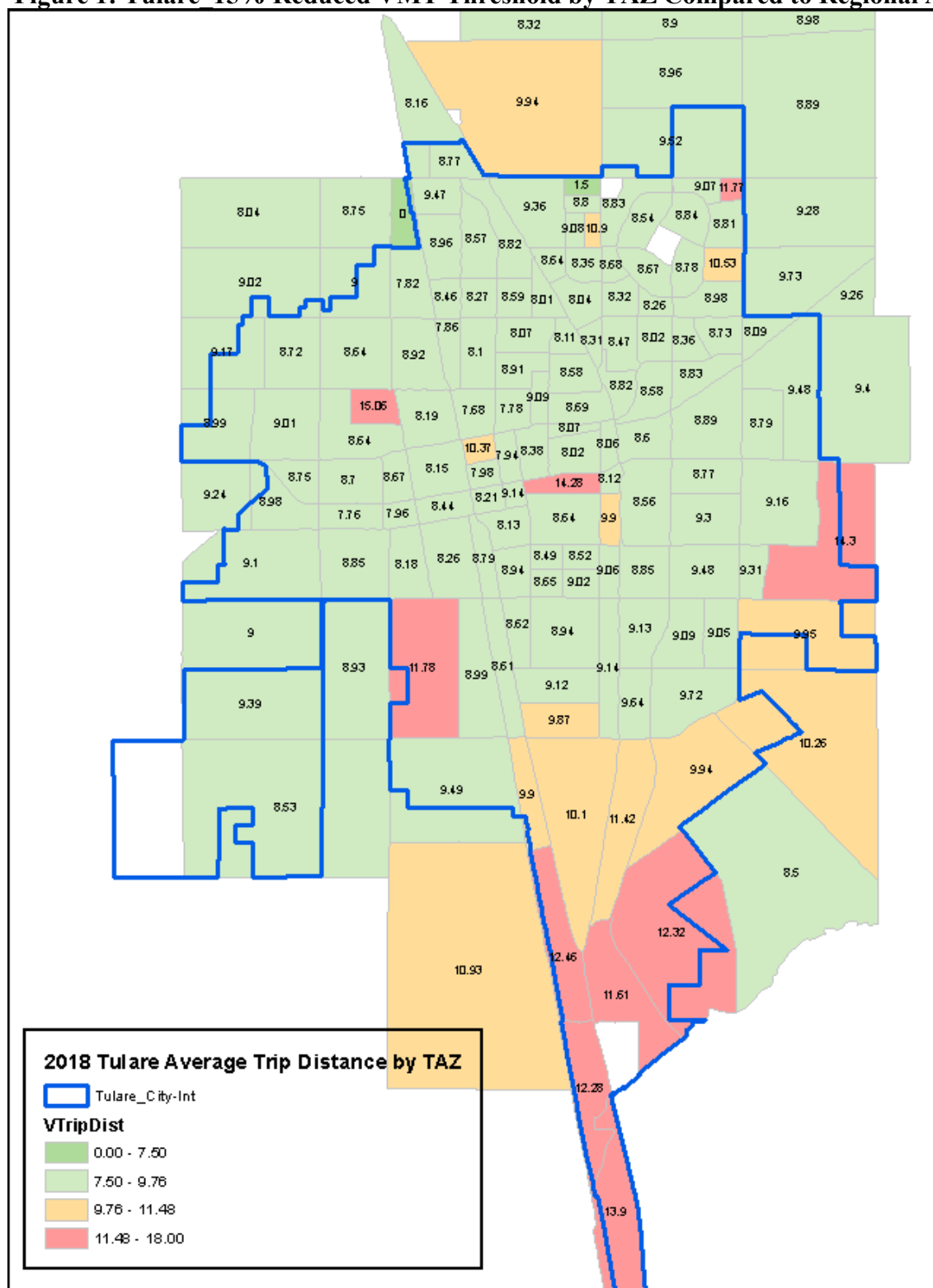
Figure 1 shows the existing average trip distance by traffic analysis zones (TAZs) in TCAG's regional model. The County average trip distance in miles traveled is 11.48 miles. Areas shown in green are areas with average trip distance in miles below 9.76 miles, representing the 15% reduction from the regional average of 11.48 miles. TAZs shown in yellow/maize represent areas in the City below the regional average, but not meeting the 15% reduction target from the regional average. TAZs shown in red represent areas in the City where the average trip distance is higher than the regional average. The map can be used as a screening threshold for residential and office/industrial to show areas that are already achieving the thresholds indicated in Table 1. Generally, if a project is located in the areas shown in green, it is likely meeting the thresholds in Table 1, unless there are specific project characteristics that would result in an overall increase in VMT, rather than redistribution of vehicle trips. Ultimately, the thresholds in Table 1 should be used to guide the type of analysis required, depending on the project type.

This memorandum is intended to provide a basic approach for the City to use in evaluating development projects under the new mandated VMT criteria to determine significant impacts under CEQA.

Table 1: Thresholds by Project Type for the City of Tulare

Project Type	Recommended Thresholds
Projects that generate < 110 trips per day	Screened Out of Detailed VMT Analysis
Projects within a ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor	Screened Out of Detailed VMT Analysis
Affordable Housing Projects in Infill Locations	Screened Out of Detailed VMT Analysis
Transit projects, bike projects, pedestrian enhancements, livability enhancements, and street safety improvement projects.	Screened Out of Detailed VMT Analysis
Schools, Parks, and Other Public Facility or Public Safety Facility	Screened Out, unless it results in net increase in VMT
Locally Serving Retail	Screened Out, unless it results in net increase in VMT
Regional Commercial or Retail Attracting Trips from Throughout the Region	Any net increase in total VMT
General Residential	15% below existing regional average trip length per TAZ
Office/Industrial Projects	15% below existing regional average trip length per TAZ
Mixed-Use Projects	Apply Corresponding Threshold to Each Type of Use, Unless One Use Dominates, Then Consider the Dominant Use Threshold
Redevelopment Projects	Any net increase in total VMT Over Existing

Figure 1: Tulare 15% Reduced VMT Threshold by TAZ Compared to Regional Average



Source: Tulare County Association of Governments, 2020.

Appendix H

AB 52 Tribal Notification Letter



COMMUNITY DEVELOPMENT

September 19, 2024

Santa Rosa Rancheria Tachi Yokut Tribe
Leo Sisco, Chairperson
P.O. Box 8
Lemoore, CA 93245

**Subject: Tribal Cultural Resources under the California Environmental Quality Act. AB 52
Tribal Consultation for the Lekkekerker Tentative Subdivision**

Dear Chairperson,

The City of Tulare is currently reviewing an application submitted by Artemis Partners LLC for the project referenced above. We are requesting your review to determine if formal consultation is necessary under Public Resources Code Section 21080.3.1 (Assembly Bill 52). The project proposes to develop the property located on the north side of Paige Avenue and east of South Pratt Street (Tulare County Assessor's Parcel Numbers 174-030-009 & 174-030-010). The current zoning for these parcels is R-1-6 and R-1-5, with a General Plan Designation of Low Density Residential. The proposed Tentative Subdivision Map (Vesting Map) outlines a plan to subdivide 57.31 acres of vacant land into 84 lots of 5,000 square feet each and 144 lots of 6,000 square feet each, accommodating the construction of 228 single-family residential dwellings.

The project site is situated within the Tulare USGS quadrangle, specifically in Section 15, Township 20, Range 24E, Mount Diablo Base and Meridian (BDM&M). Attached are an aerial image of the project site and a copy of the proposed subdivision map for your reference.

In accordance with AB 52, Government Code §21080.3.1, we are requesting your review and comments regarding any potential impacts on cultural places significant to your tribe. Your input is important for the preparation of environmental documentation to ensure that important cultural places are identified and potential impacts are mitigated.

If we do not receive a response by **October 19th, 2024**, we will assume that your tribe has opted not to engage in consultation. Nonetheless, notifications about the availability of public hearings will continue to be provided. Please contact me at 559-684-3125 or via email at jreynaga@tulare.ca.gov with any questions.

Thank you for your attention to this matter.

Respectfully,

Julian Reynaga
Assistant Planner

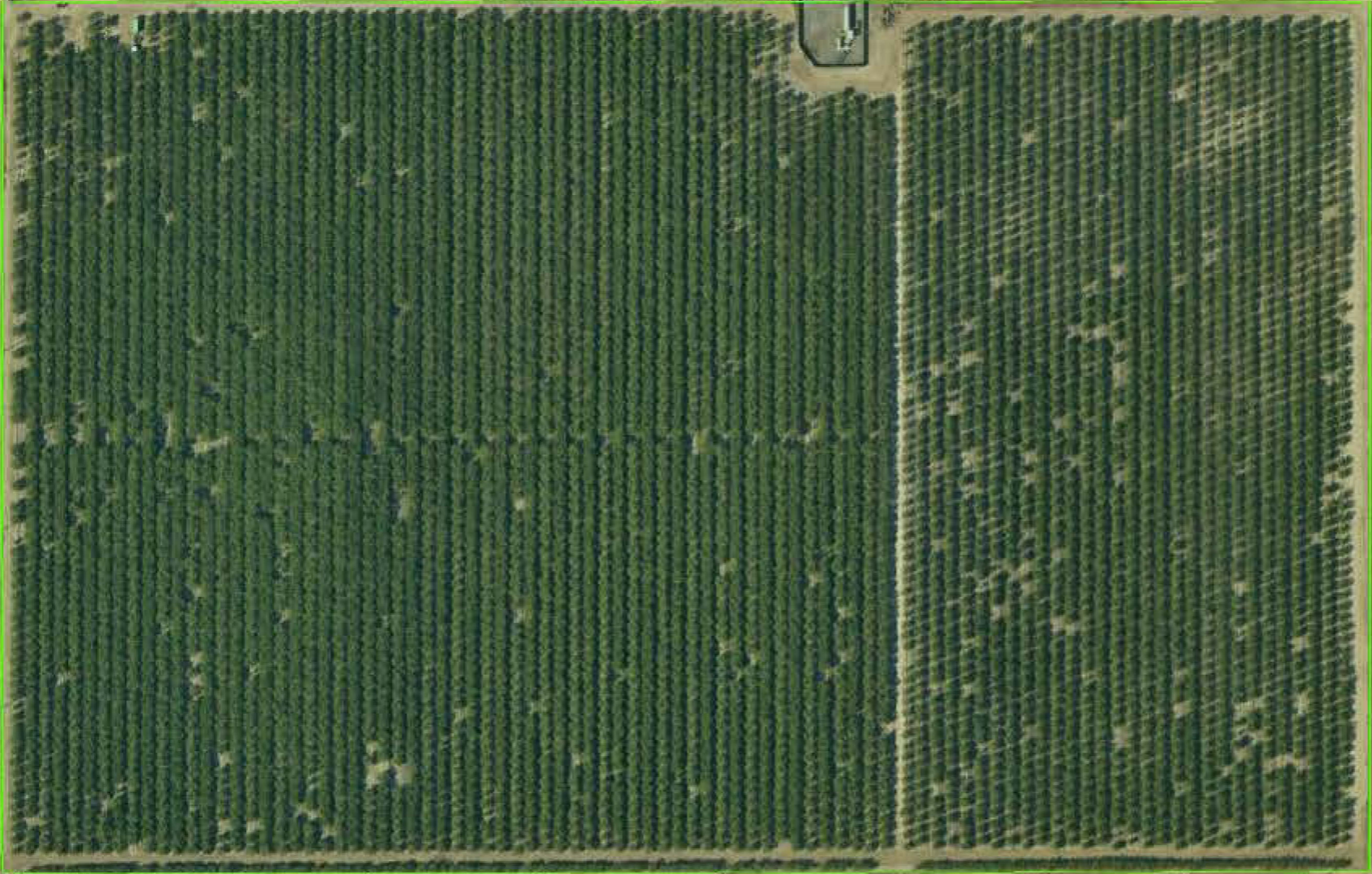
Enclosures: Aerial Image, Site Plan

Lekkerkerker Subdivision

2258 Single Family Subdivision

Legend

Site Area



LEKKERKERKER PROPERTY

TENTATIVE SUBDIVISION MAP

PREPARED FOR:

ARTEMIS, LLC.
324 S. SANTA FE ST., STE. A
VISALIA, CA 93292

PREPARED BY:

4CREEKS, INC.
324 S. SANTA FE ST., STE. A
VISALIA, CA 93292

ACREAGE

19.20 AC	R-1-5 (50' x 100')	4.38 UNITS/AC
38.11 AC	R-1-6 (60' x 100')	3.78 UNITS/AC

LEGEND

APN:	174030009, 174030010
ZONING:	R-1-5 & R-1-6
GENERAL PLAN:	LOW DENSITY RESIDENTIAL
FLOOD ZONE:	X
ELECTRICITY:	SOUTHERN CALIFORNIA EDISON
TELEPHONE:	AT&T
NATURAL GAS:	SOUTHERN CALIFORNIA GAS
EXISTING USE:	FARMLAND
PROPOSED USE:	LOW DENSITY RESIDENTIAL
	PHASE LINE

TYPICAL LOT SIZES:

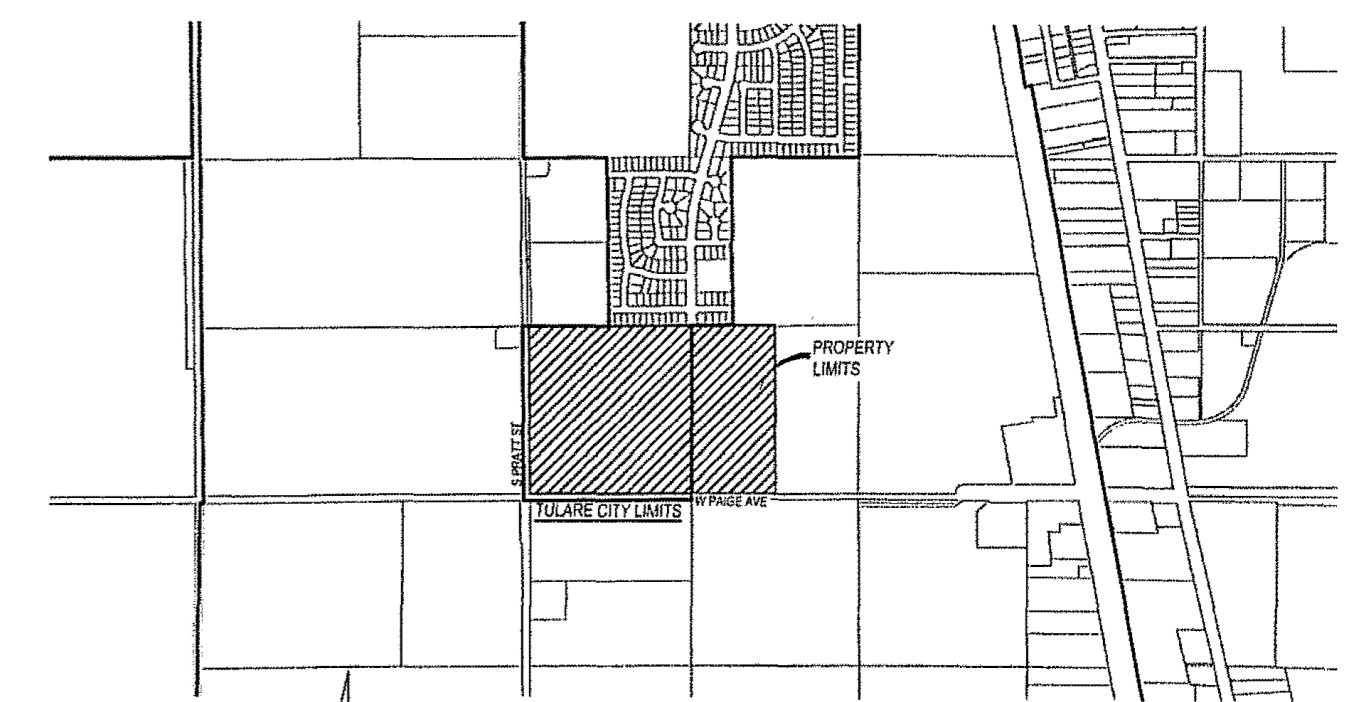
MIN. 5000 SF LOTS± (50' X 100') (84 UNITS)
MIN. 6000 SF LOTS± (60' X 100') (144 UNITS)

TOTAL 228 UNITS

*OUTLOTS A-I TO BE DEDICATED TO CITY OF TULARE

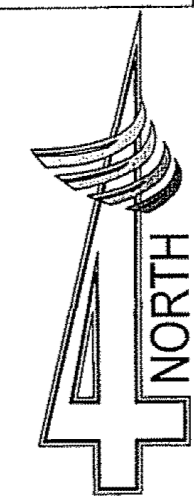
UTILITIES:

STORM WATER:	TEMP. BASIN TO BE CONSTRUCTED OVER LOTS 6-13
SEWER:	TIE-IN TO EXIST. 10" LINE IN E ST AND/OR EXIST. 27" LINE IN PAIGE AVE
WATER:	TIE-IN TO EXIST. 12" LINE IN E ST



VICINITY MAP

SCALE: 1"=1500'



PREPARED BY:



4CREEKS

324 S. SANTA FE, STE. A
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215
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