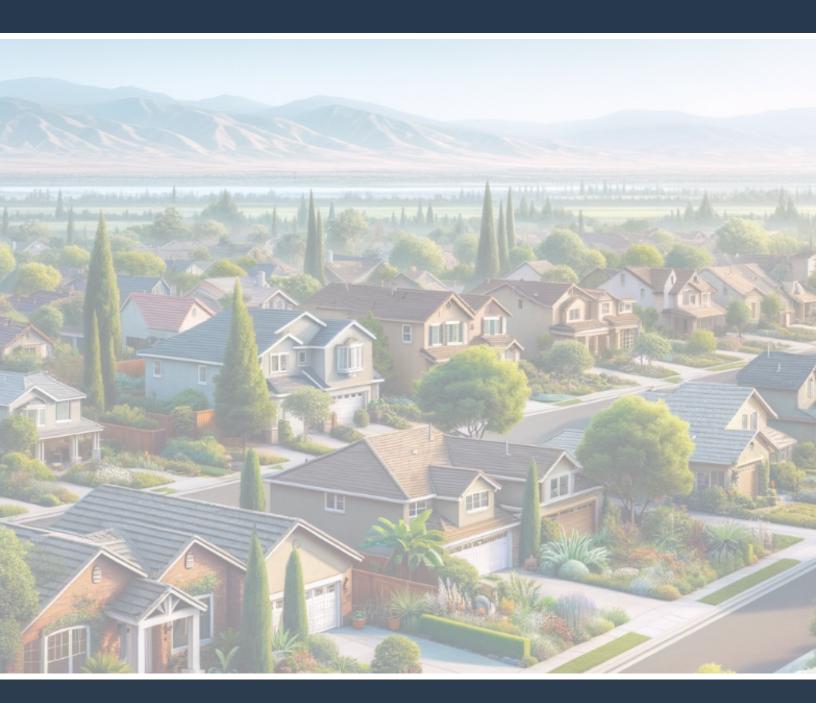
# INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR CAMERON RANCH ESTATES

**MAY 2024** 



Prepared By:



4Creeks, Inc. 324 S Santa Fe, Suite A Visalia, CA 93292 Prepared For:



City of Visalia 324 Santa Fe St. Visalia, CA 93292

# **TABLE OF CONTENTS**

Section 1: Initial Stud	dy/MND Process	1-1
1.1 California	Environmental Quality Act Guidelines	1-1
1.2 Initial Stu	dy	1-1
1.3 Environm	ental Checklist	1-2
1.4 Notice of	Intent to Adopt a Negative Declaration/Notice of Preparation	1-2
1.5 Mitigated	Negative Declaration	1-3
1.6 Intended	Uses of the Environmental Assessment, Initial Study	1-3
1.7 Notice of	Determination	1-4
1.8 CEQA Pro	cess Flow Chart	1-5
Section 2: Project De	escription	2-1
2.1 Project De	escription & Purpose	2-1
2.2 Project Lo	ocation	2-1
2.3 Other Pe	rmits and Approvals	2-2
Section 3: Evaluatio	n of Environmental Impacts	3-1
3.1 Purpose		3-1
3.2 Initial Stu	udy/Mitigated Negative Declaration	3-2
3.3 Evaluatio	on of Environmental Impacts	3-9
	nental Factors Potentially Affected	3-10
3.5 Environm	nental Analysis	3-11
l.	Aesthetics	3-11
II.	Agriculture and Forest Resources	3-17
III.	Air Quality	3-24
IV.	Biological Resources	3-33
V.	Cultural Resources	3-39
VI.	Energy	3-45
VII.	Geology and Soils	3-49
VIII.	Greenhouse Gas Emissions	3-56
IX.	Hazards and Hazardous Materials	3-62
X.	Hydrology and Water Quality	3-67
XI.	Land Use and Planning	3-75
XII.	Mineral Resources	3-80
XIII.	Noise	3-82
XIV.	Population and Housing	3-88
XV.	Public Services	3-90
XVI.	Parks and Recreation	3-95
XVII.	'	3-98
	I. Tribal Cultural Resources	3-103
XIX.	Utilities and Service Systems	3-109
XX.	Wildfire	3-114
XX.	Mandatory Findings of Significance	3-116
	n Monitoring and Reporting Program	3-118
≺ / Supportu	na Information and Sources	3-127

		·	
Appen	dices		
	Appe	endix A: CalEEMod Report	
	Appe	endix B: 2005 BAU CalEEMod Report	
	Appe	endix C: Cultural Resources Assessment	
	Appe	endix D: Energy Calculations	
		endix E: Agricultural Mitigation Memo	
		endix F: Biochemical Oxygen Demand and Total Suspended Solids Calculations	
List of	Figure	s	
	2-1	Regional Location	2-3
	2-2	Vicinity Map	2-4
	3-1	Vicinity Map	3-7
	3-2	Tentative Subdivision Map	3-8
	3-3	Important Farmland Map	3-20
	3-4	Soils Map	3-51
	3-5	Distance to Schools and Airports	3-64
	3-6	City of Visalia General Plan Land Use	3-77
	3-7	Zoning Map	3-78
	3-8	Construction Related Noise Levels	3-85
	3-9	Visalia Existing VMT Per Capita	3-101
List of	Tables		
	3-1	Important Farmland Developed Under 2030 General Plan	3-21
	3-2	San Joaquin Valley Attainment Status	3-24
	3-3	SJVAPCD Ambient Air Quality Standards	3-27
	3-4	SJVAPCD Thresholds of Significance for Criteria Pollutants	3-29
	3-5	Projected Project Emissions for Criteria Pollutants related to Construction	3-31
	3-6	Projected Project Emissions for Criteria Pollutants related to Operations	3-31
	3-8	SCE and State Average Power Resources	3-45
	3-9	On-Road Mobile Fuel Use Generated by Construction Activities	3-47
	3-10	On-Road Mobile Fuel Use Generated by Operational Activities	3-48
	3-11	Greenhouse Gasses	3-57
	3-12	Projected Project Operational GHG Emissions	3-60
	3-13	Project Consistency with Climate Action Plan	3-6
	3-14	City of Visalia Noise Standards	3-83
	3-15	Noise levels of noise-generating construction equipment at various distances	3-85
	3-16	Vibration Levels Generated by Construction Equipment	3-86
	3-17	Student Generation Rates	3-93

**Section 4: List of Report Preparers** 

4-1

# **Section 1**

Initial Study / Negative Declaration Process



## City of Visalia

315 E Acequia Ave Visalia, CA 93291

# SECTION 1 CEQA Review Process

**Project Title: Cameron Ranch Estates** 

# 1.1 California Environmental Quality Act Guidelines

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

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

# 1.2 Initial Study

The Initial Study provided herein covers the potential environmental effects of the construction and operation of 178 low density residential dwelling units on approximately 43.6 gross acres. The property, currently zoned as AE-40 within Tulare County, is slated for annexation by the City of Visalia, with a proposed zoning designation of R-1-5 and intended for residential low-density

development. The City of Visalia will act as the Lead Agency for processing the Initial Study/Mitigated Negative Declaration pursuant to the CEQA Guidelines.

#### 1.3 Environmental Checklist

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

# 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 15105b) shall not be less than 20 days when the Initial Study/Negative Declaration is submitted to the State Clearinghouse.

Prior to approving the project, the Lead Agency shall consider the proposed Negative Declaration together with any comments received during the public review process, and shall adopt the proposed Negative Declaration only if it finds on the basis of the whole record before it, 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.

The written and oral comments received during the public review period will be considered by The City of Visalia 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:

- 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 Section 15070(a) 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. Less than significant impacts with mitigation measures have been identified.

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

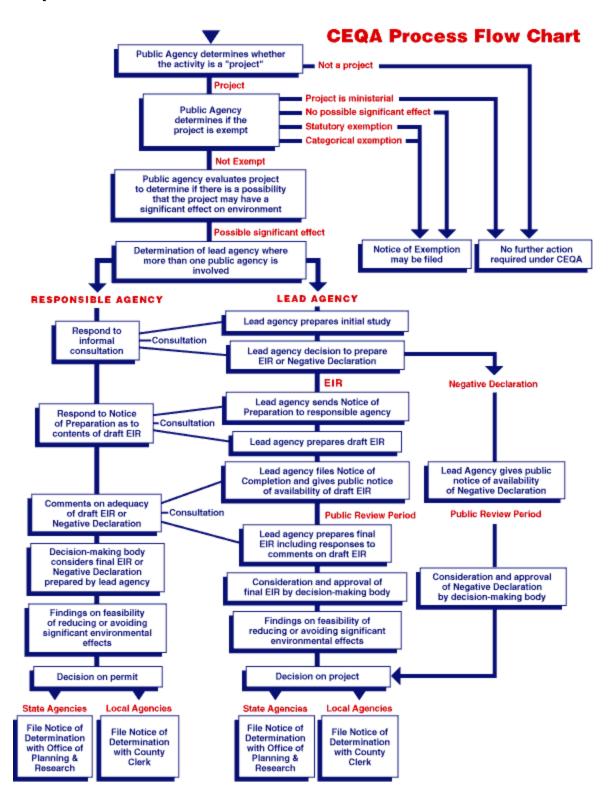
The Initial Study/Negative Declaration document is an informational document that is intended to inform decision-makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed project. The environmental review process has been established to 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 Visalia, as 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



# **Section 2**

**Project Description** 



# City of Visalia

315 E Acequia Ave Visalia, CA 93291

# SECTION 2 Project Description

**Project Title: Cameron Ranch Estates** 

#### 2.1 Project Description and Purpose

The Project proposes a 178-unit, low-density single-family development with a pocket park and pedestrian friendly traffic calming measures on 43.6 gross acres within the City of Visalia Planning Area. The Project site's existing General Plan land use designation is Residential Low Density, which corresponds to a prezone of R-1-5 (single-family residential, 5,000 square feet minimum lot size). The project includes 178 homes, averaging 5,000 square feet per lot, a pocket park, and traffic calming measures throughout the site's roads.

The Project would result in onsite and offsite infrastructure improvements including new and relocated utilities, new residential streets, improvements to Caldwell Avenue, and the continuation and improvement of Ben Maddox Way. The Project will require no demolition. The construction of the Project will be in two phases (Figure 3–5). Phase one will include 117 homes and the northern site entrance as an extension to Ben Maddox Way, as well as the pocket park on the eastern side of the development. The second phase will include the remaining 61 homes. The Project will require annexation into the City of Visalia; however, it is within the Visalia Planning Area and borders existing single-family homes within City Limits. Along with the annexation, the Project plans on being constructed in a two-phase development, there will be no parcel splitting. (Figure 3–3). Additionally, there will be no improvements to Cameron Creek.

### 2.2 Project Location

The proposed project site is located within the City of Visalia Planning Area within Tulare County. The site is West of Ben Maddox Way and South of Caldwell Avenue. The site is approximately 2.5 miles Southwest of the Visalia downtown. The Project involves construction on approximately 43.6 acres on APN 124-010-007 & 005. The site is flat and bordered by agricultural land to the South and East, with single-family housing to the North and West. There are also mixed-use and neighborhood commercial areas just to the north of the site. The site is zoned AE-20 (Exclusive Agriculture, 20 Acre Minimum Site Area) by Tulare County but is prezoned for R-1-5 (Single Family Residential, 5,000 Square Foot Minimum Site Area) by the City of Visalia pending annexation. The General Plan Designation is Low Density Residential. The site currently contains agricultural uses and vacant land.

## 2.3 Other Permits and Approvals

The following discretionary approvals are required from the City of Visalia:

- Annexation
- Tentative Subdivision Map

The following ministerial approvals are required from the City of Visalia:

- City of Visalia Building and Encroachment Permits
- Roadway Dedication of Ben Maddox Way and Caldwell Avenue.

San Joaquin Valley Air Pollution Control District (SJVAPCD): The proposed Project is within the jurisdiction of the SJVAPCD and will be required to comply with Rules VIII, 3135, 4101, and 9510.

**Central Valley Regional Water Quality Control Board, SWPPP:** The proposed project site is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB). The Central Valley RWQCB will require a Storm Water Pollution Prevention Plan (SWPPP) to prevent impacts related to stormwater because of project construction.

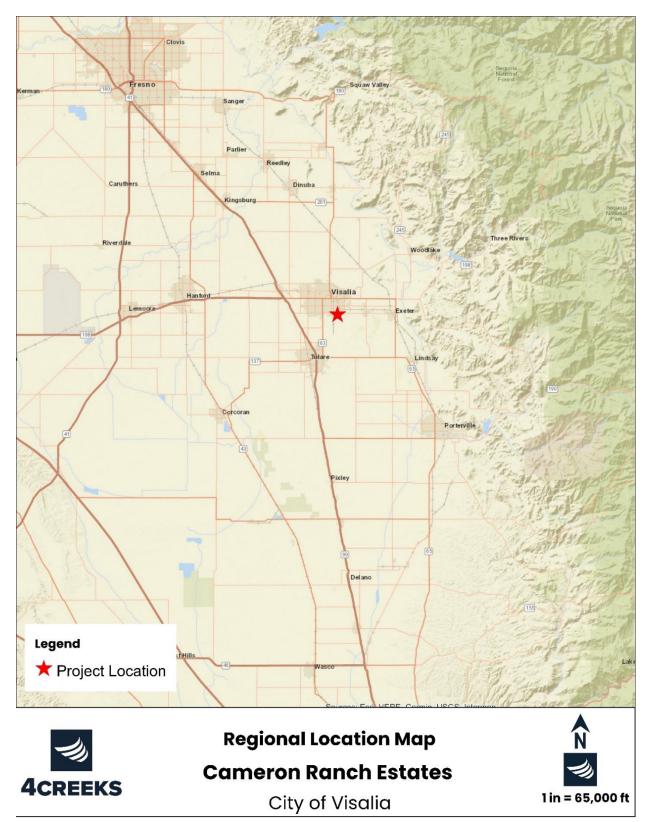
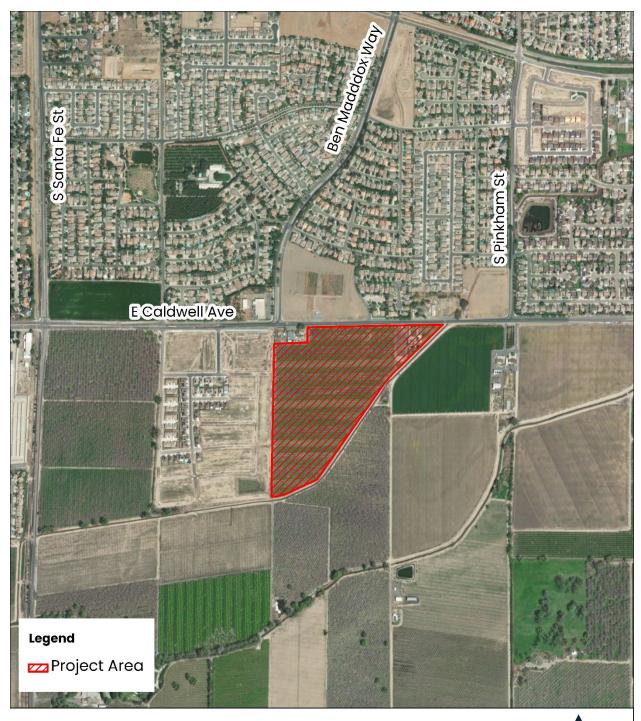


Figure 2-1. Regional Location Map





# Vicinity Map Cameron Ranch Estates



City of Visalia

Figure 2-2. Vicinity Map

# **Section 3**

Evaluation of Enviromental Impacts



# City of Visalia

315 E Acequia Ave Visalia, CA 93291

# SECTION 3 Evaluation of Environmental Impacts

## **Project Title: Cameron Ranch Estates**

This document is the Initial Study/Mitigated Negative Declaration for the proposed construction and operation of 178-unit, single-family development and pocket park on 43.6 gross acres within the City of Visalia Planning Area. The City of Visalia will act as Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

#### 3.1 PURPOSE

The purpose of this environmental document is to implement the California Environmental Quality Act (CEQA). 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.

This Initial Study of environmental impacts has been prepared to conform to the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). According to 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:

- (a) 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
- (b) 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.

# 3.2 INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

1. **Project Title:** Cameron Ranch Estates

2. **Lead Agency:** City of Visalia, Planning and Community Preservation

Contact Person: Paul Bernal, Director

315 E Acequia Ave Visalia, CA 93291

Phone Number: (559) 713-4359

3. **Applicant:** Artemis Partners LLC

324 Santa Fe St. Visalia, CA 93292

Phone Number: (559)-802-3052

- 4. Project Location: The proposed Project Site is located within the City of Visalia Planning Area within Tulare County. The site is 2.5 miles southwest of Visalia's downtown, south of the intersection of Ben Maddox Way at Caldwell Avenue. The Project involves construction on APN 124-010-007 & 005. The site is 43.6 acres and features a level topography with single-family homes to the north and west and agricultural area to the south and east. Currently, the location is used for farming and includes undeveloped land. The site is pre-zoned for R-1-5 (Single Family Residential, 5,000 Square Foot Minimum Site Area) and is currently awaiting annexation by the City of Visalia. It is currently zoned as AE-20 (Exclusive Agriculture, 20 Acre Minimum Site Area) by Tulare County. It is designated for Low-Density Residential use under the General Plan Designation.
- 5. **General Plan Designation:** The proposed project site is designated as Low Density Residential by the Visalia General Plan.
- 6. **Zoning Designation:** The site is zoned AE-20 (Exclusive Agriculture, 20 Acre Minimum Site Area) by Tulare County but is prezoned for R-1-5 (Single Family Residential, 5,000 Square Foot Minimum Site Area) by the City of Visalia pending annexation.
- 7. **Project Description:** The Project proposes a 178-unit, low-density single-family development with a pocket park and pedestrian friendly traffic calming measures on 43.6 gross acres within the City of Visalia Planning Area. The Project site's existing General Plan land use designation is Residential Low Density, which corresponds to a prezone of R-1-5 (single-family residential, 5,000 square feet minimum lot size). The project includes 178 homes, averaging 5,000 square feet per lot, a pocket park, and traffic calming measures throughout the site's roads.

The Project would result in onsite and offsite infrastructure improvements including new and relocated utilities, new residential streets, improvements to Caldwell Avenue, and the continuation and improvement of Ben Maddox Way. The Project will require no demolition. The construction of the Project will be in two phases (Figure 3-5). Phase one will include 117 homes and the northern site entrance as an extension to Ben Maddox Way, as well as the pocket park on the eastern side of the development. The second phase will include the remaining 61 homes. Additionally, there will be no riparian improvements to Cameron Creek.

The Project will require annexation into the City of Visalia; however, it is within the Visalia Planning Area and borders existing single-family homes within City Limits. Along with the annexation, the Project plans on being constructed in a two-phase development. (Figure 3-3).

# 8. Surrounding Land Uses and Settings:

North: Very Low Density Residential & Neighborhood Commercial / Mixed Use (Visalia General Plan), currently Single-Family Housing.

South: Agricultural Use (Tulare County General Plan) currently agricultural use.

East: Agricultural Use (Tulare County General Plan) currently agricultural use.

West: Very Low Density Residential & Multi Family Residential (Visalia General Plan), currently Single-Family Housing & Multi-Family Housing.

- 9. **Required Approvals:** The following discretionary approvals are required from the City of Visalia for the proposed project:
  - Annexation
  - Tentative Subdivision Map
- 10. Native American Consultation: The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the California Environmental Quality Act (CEQA) Guidelines. Pursuant to PRC Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)). According to the most recent census data, California is home to 109 currently recognized Native American tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias. Tulare County has several Rancherias. The tribes that were formally noticed of this Project were the Big Sandy Rancheria of Western Mono Indians, Santa Rosa Rancheria Tachi Yokut Tribe, Dunlap Band of Mono Indians, Tubatulabals of Kern Valley, Tule River Indian Tribe, Kern Valley

Indian Community, North Fork Mono Tribe, and the Wuksache Indian Tribe/Eshom Valley Band. These Rancherias are not located within the City limits.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Soar Environmental did not receive comments from the Tulare County Native American groups or affiliated individuals regarding the proposed development at the project location.

- 11. **Parking and access:** Vehicular access to the project is available from Ben Maddox Way and Caldwell Avenue. The project includes new streets and courts that provide full access to the project site. During construction, workers will utilize existing parking areas and/or temporary construction staging areas for parking vehicles and equipment. Additionally, temporary emergency access will be added during early construction.
- Landscaping and Design: The landscape and design plans will be required during building permit and final map submittal for any areas maintained by a landscape and lighting district.
- 13. Utilities and Electrical Services: The Project would result in onsite and offsite infrastructure improvements including new and relocated utilities. Water and sewer services will be provided by the City of Visalia via existing lines along Caldwell Avenue and Ben Maddox Way. A storm drain basin will be located within the Southeast portion of the site. During construction, a temporary stormwater basin will be utilized. Electricity will be provided by Southern California Edison, and Gas will be provided by Southern California Gas Company.
- 14. **Roadway Improvements:** The project includes extensive streetscape improvements within the vicinity of the Project site. Caldwell Avenue's Right of Way (ROW) is presently configured as a two-lane roadway supporting bidirectional traffic, yet it lacks curbs, gutters, and sidewalks. The planned improvements include the installation of these elements along both the northern and southern sides of Caldwell Avenue. Additionally, a block wall and a 10-foot wide landscaping buffer are proposed along the southern boundary of Caldwell Avenue, adjacent to the project site.

The project also includes the extension of Ben Maddox Way, which currently is a four-lane road ending north of Caldwell Avenue. As part of the proposed project, Ben Maddox Way

will extend directly south along the western project boundary. The extension of Ben Maddox Way will include a central median, curbs, gutters, parkways, and walkways on both sides of the street to improve pedestrian accessibility and safety. Echoing the design on Caldwell Avenue, this section will also feature a 10-foot landscaping strip and a block wall along the project's perimeter, creating a harmonious and unified streetscape. Ben Maddox Way will act as the primary entry point to the Cameron Ranch Estates development.

Reese Drive will be an internal road within the project area that connects the extended Ben Maddox Way with Caldwell Avenue by way of the Tulare Irrigation Canal. Along its entire length, this new road will feature newly constructed curbs, gutters, and sidewalks in addition to 20-foot lanes in both directions.

## **Acronyms**

BMP Best Management Practices

BAU Business as Usual
CAA Clean Air Act

CBC California Building Code
CCAP Climate Change Action Plan
CCR California Code of Regulation

CDFG California Department of Fish and Game
CEQA California Environmental Quality Act
CRHR California Register of Historic Places

CWA California Water Act

DHS Department of Health Services
FEIR Final Environmental Impact Report

FMMP Important Farmland Mapping and Monitoring Program

ISMND Initial Study Mitigated Negative Declaration

ISR Indirect Source Review

MCL Maximum Contaminant Level

MEIR Master Environmental Impact Report

NOI Notice of Intent

ND Negative Declaration
NAC Noise Abatement Criteria

RCRA Resource Conservation and Recovery Act of 1976

ROW Right-of-Way

RWQCB Regional Water Quality Control Board

SCE Southern California Edison

SHPO State Historic Preservation Office

SJVAPCD San Joaquin Valley Air Pollution Control District
SSJVIC Southern San Joaquin Information Center
SWPPP Storm Water Pollution Prevention Plan

TCR Tribal Cultural Resource

UWMP Urban Water Management Plan



Figure 3-1. Vicinity Map

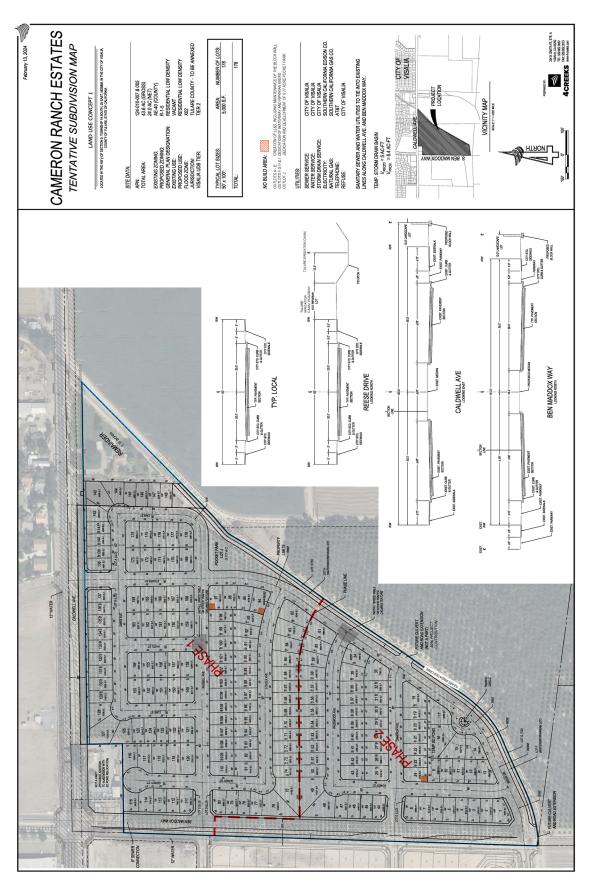


Figure 3-2: Tentative Subdivision Map

#### 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).
- All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR if required.
- 4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c) (3)(D). In this case, a brief discussion should identify the following.
  - Earlier Analysis Used. Identify and state where they are available for review.
  - Impacts Adequately Addressed. Identify which effects from the above checklist were within
    the scope of and adequately analyzed in an earlier document pursuant to applicable legal
    standards, and state whether such effects were addressed by mitigation measures based
    on the earlier analysis.
  - Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated." Describe and mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

# 3.4 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

	cked below would be potentially affe	, , ,
following pages.	otentially Significant Impact" as indi	cated by the checklist on the
□ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture and Forest	☐ Hazards & Hazardous Materials	☐ Recreation
Resources	<ul><li>☑ Hydrology and Water Quality</li></ul>	☐ Transportation
☐ Air Quality	☐ Land Use and Planning	☐ Tribal Cultural
☐ Biological Resources	☐ Mineral Resources	☐ Utilities and Service
<ul><li>☑ Cultural Resources</li></ul>	□ Noise	☐ Wildfire
☐ Energy	☐ Population	☐ Mandatory Findings
☑ Geology and soils	L ropulation	of Significance
M Geology and soils		or significance
to be significant, mitigation mareduced to insignificant levels.	eted by the Lead Agency) Where poteneasures will be required, so that in the basis of this initial evaluation: project COULD NOT have a significa	mpacts may be avoided or
• •	RATION WILL BE PREPARED.	nt enection the environment
☑ I find that although the environment, there will	he proposed project could have not be a significant effect in this c le by or agreed to by the project prop	ase because revisions in the
•	I project MAY have a significant effec	t on the environment, and ar
☐ I find that the proposed significant unless mitig been adequately and standards, and 2) has analysis as described analyze only the effects ☐ I find that although the	d project MAY have a "potentially signated" impact on the environment, lalyzed in an earlier document pubeen addressed by mitigation mean attached sheets. A Negative Decks that remain to be addressed. The proposed project could have all potentially significant effects	out at least one effect 1) has ursuant to applicable lega easures based on the earlier aration is required, but it must a significant effect on the
adequately in an earlie and (b) have been a DECLARATION, including	or EIR or NEGATIVE DECLARATION pursuavoided or mitigated pursuant to g revisions or mitigation measures ing further is requested.	uant to applicable standards that earlier EIR or NEGATIVE
Paul Bernal	05/30/202	4
SIGNATURE	DATE	
<u>Paul Bernal</u>	<u>City of Visalia</u>	
PRINTED NAME	AGENCY	

#### 3.5 ENVIRONMENTAL ANALYSIS

The following section provides an evaluation of the impact categories and questions contained in the checklist and identify mitigation measures, if applicable.

#### I. AESTHETICS

Except as provided in Public Resource Code Section 210999, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
<ul> <li>a) Have a substantial adverse effect on a scenic vista?</li> </ul>			Ø	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within state scenic highway?				Ø
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?				V
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			Ø	

#### **Environmental Setting**

#### **Scenic Resources**

Scenic resources include landscapes and features that are visually or aesthetically pleasing. They contribute positively to a distinct community or region. These resources produce a visual benefit upon communities. The City of Visalia has a visual character of a mix of rural and built environments. Visalia is surrounded by natural open space agricultural land, characterized by uses such as grazing, open space, and cultivated agriculture. Downtown Visalia is the physical, cultural, and economic center, with historical homes surrounding the downtown. St. John's river flows along the North side of Visalia's city limits, along with smaller creeks and ditches throughout the city. Valley Oak trees, both individually and in groves, also provide an important scenic feature and link to the natural setting of the San Joaquin Valley. The goal of Visalia's General Plan regarding visual resources is to preserve and re-establish the city's natural waterway system and Valley Oak tree groves with parks, conservation areas, and trailways.

#### **Scenic Vistas**

The Visalia General Plan identifies the Sierra Nevada mountains to the East and agricultural lands surrounding the city as scenic vistas surrounding Visalia.

# **Existing Visual Character**

The following photos demonstrate the aesthetic character of the project area. As shown, the proposed project site area is in a relatively flat area characterized by agricultural uses.



Photo 1: Northeast Site Boundary (View Southwest) Source: Google Maps 2024



Photo 2: Northwest Site Boundary (View Southeast) Source: Google Maps 2024



Photo 3: Northeast Site Boundary viewing Tulare Irrigation Canal (View South) Source: Google Maps 2024



Photo 4: Stover St at Caldwell Avenue viewing adjacent land uses (View Northeast) Source:

Google Maps 2024

# **Regulatory Setting**

# Scenic Roadways

The California Scenic Highway Program was established in 1963 by the State Legislature for the purpose of protecting and enhancing the natural beauty of California highways and adjacent corridors through conservation strategies. The State Scenic Highway System includes a list of highways that have either been officially designated or are eligible for designation. State laws affiliated with governing the scenic highway program can be found in Sections 260–263 in The Street and Highways Code.

# **State Scenic Highways**

According to the California Department of Transportation mapping of State Scenic Highways, the City of Visalia does not have officially designated State Scenic Highways,

however the City has one eligible State Scenic Highway, a 44-mile stretch of State Route 198 from State Route 99 to Sequoia National Park. This is designated as a scenic corridor in the City's General Plan. This portion of the highway is approximately 2.0 miles North from the proposed site.

#### City of Visalia General Plan

The 2030 General Plan includes the policies related to aesthetic resources that correlate to the proposed project:

LU-P-28: Continue to use natural and man-made edges, such as major roadways and waterways within the City's Urban Area Boundary, as urban development limit and growth phasing lines.

*LU-P-34*: Work with Tulare County to prevent urban development of agricultural land outside of the current growth boundaries and to promote the of use agricultural preserves, where they will promote orderly development.

*LU-P-42*: Develop scenic corridor and gateway guidelines that will maintain the agricultural character of Visalia at its urban fringe.

LU-P-72: Ensure that noise, traffic, and other potential conflicts that may arise in a mix of commercial and residential uses are mitigated through good site planning, building design, and/or appropriate operational measures.

OSC-P-13: In new neighborhoods that include waterways, improvement of the waterway corridor, including preservation and/or enhancement of natural features and development of a continuous waterway trail on at least one side, shall be required.

OSC-P-17: Require that new development along waterways maintain a visual orientation and active interface with waterways. Develop design guidelines to be used for review and approval of subdivision and development proposals to illustrate how this can be accomplished for different land uses in various geographic settings.

OSC-P-34: Enhance views and public access to Planning Area waterways and other significant features such as Valley Oak groves consistent with flood protection, irrigation water conveyance, habitat preservation and recreation planning policies.

#### **Tulare County General Plan**

The 2030 Tulare County General Plan contains following goals and policies related to aesthetic resources that correlate to the proposed project:

SL-1.1 Natural Landscapes: During review of discretionary approvals, including parcel and subdivision maps, the County shall as appropriate, require new development to not

significantly impact or block views of Tulare County's natural landscapes.

- 1. Be sited to minimize obstruction of views from public lands and rights-of-ways,
- 3. Screen parking areas from view,
- 4. Include landscaping that screens the development,
- 5. Limit the impact of new roadways and grading on natural settings, and
- 6. Include signage that is compatible and in character with the location and building design

*SL-1.2 Working Landscapes*: The County shall require that new non-agricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds and to be designed to reflect unique relationships with the landscape.

- 1. Referencing traditional agricultural building forms and materials,
- 2. Screening and breaking up parking and paving with landscaping, and
- 3. Minimizing light pollution and bright signage.

*SL-3.2 Urban Expansion–Edges*: The County shall design and plan the edges and interface of communities with working and natural landscapes to protect their scenic qualities by:

- 1. Maintaining urban separators between cities and communities,
- Encouraging cities to master plan mixed-density neighborhoods at their edges, locating compatible lower density uses adjacent to working and natural landscapes, and
- 3. Protecting important natural, cultural, and scenic resources located within areas that may be urbanized in the future

#### City of Visalia Zoning Ordinance

The Visalia Zoning Ordinance governs the distribution and intensity of land uses, sets the principles for evaluating development and guides the development and growth of the City. The Zoning Ordinance establishes specific development criteria for each zoning district (i.e., parking requirements, walls, fencing, setbacks, building height, etc.).

#### **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 landscape for the benefit of the general public. The Sierra Nevada mountains to the East and agricultural lands surrounding the city are the primary scenic vista within this region. The site is surrounded by agricultural uses and single-family homes, while the Sierra Nevada foothills are approximately 10 miles east of the project site.

The project would obstruct some views of agricultural uses. However, the project would not significantly alter views overall from the surrounding community. There is a less than significant impact.

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 located in the City of Visalia or nearby the site. The proposed project would not damage any scenic resources within a state scenic highway and there is *no impact*.

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?

**No Impact:** The proposed project site is within the Visalia Planning Area and borders existing single-family homes within City Limits. The Project site's existing Tulare County General Plan land use designation is Residential Very Low Density, which corresponds to a prezone of R-1-5 (single-family residential, 5,000 square feet minimum lot size) for the City of Visalia. The materials, signage, fencing, landscaping, and building materials used in the construction of the project will be selected based on their ability to improve the overall visual character of the area. The proposed project will comply with all applicable zoning and other regulations governing scenic quality. There is *no 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 proposed project would result in new lighting sources on the project site consistent with adjacent residential development. New lighting sources would include interior lighting from residences, street lighting, and security lighting. All street and landscape lighting will be consistent with the City's lighting standards, which are developed to minimize impacts related to excessive light and glare. Although the project will introduce new light sources to the area, all lighting will be consistent with adjacent residential land uses and the City's lighting standards. The impacts are less than significant.

# II. AGRICULTURE AND FOREST RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
Resources Board. Would the project:  a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?		<b>V</b>		
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?			Ø	
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)?				ত্

d) Result in the loss of forestland or conversion of forest land to non-forest use?			Ø
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?		Ø	

## **Environmental Setting**

Central California is one of the world's premier growing regions. Agriculture is an important economic resource for Visalia and the surrounding areas. 39,518 acres, or 65 percent, of the Visalia Planning Area is farmland, producing fruit and nut crops, vegetables, nursery products (trees), apiary products (honey), seed crops (cotton), industrial crops (timber), field crops (alfalfa, barley, corn), and livestock. The proposed project site is located within the Visalia Planning Area. The proposed project site is not under Williamson Act Contract or a Farmland Security Zone contract. The proposed site is designated as Farmland of Local Importance under the Important Farmland Mapping and Monitoring Program (FMMP). The Site is within the Tier 2 Development Boundary and is designated for Low-Density Housing. Nearby to the South and West are Prime Farmland and Confined Animal Enclosures. To the North and East are is urbanized land.

### **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.

# **Right to Farm Ordinance**

Tulare County adopted a "Right to Farm Ordinance," to protect the rights of commercial farming operations, while promoting a "good neighbor policy" between these uses. Under this ordinance, property owners and residents are made aware that they may experience inconveniences due to commercial agricultural operations.

# 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. Land is included in this program 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:

- Prime Farmland has the ideal physical and chemical composition for crop production. It
  has been used for irrigated production in the four years prior to classification and can
  produce sustained yields. 51% of the Visalia Planning Area is classified as Prime Farmland.
- Farmland of Statewide Importance has also been used for irrigated production in the four years prior to classification and is only slightly poorer quality than Prime Farmland. 11% of the Visalia Planning Area is classified as Farmland of Statewide Importance.
- Unique Farmland has been cropped in the four years prior to classification and does not
  meet the criteria for Prime Farmland or Farmland of Statewide Importance but has
  produced specific crops with high economic value. Less than 1% of the Visalia Planning
  Area is classified as Unique Farmland.
- 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. 2% of the Visalia Planning Area is classified as Farmland of Local Importance.

#### City of Visalia General Plan

The 2030 General Plan includes the policies related to agricultural resources that correlate to the proposed project:

- LU-P-19: Ensure that growth occurs in a compact and concentric fashion by implementing the General Plan's phased growth strategy.
- LU-P-21: Allow annexation and development of residential, commercial, and industrial land to occur within the Tier II UDB and the Tier III Urban Growth Boundary consistent with the City's Land Use Diagram, according to the stated phasing thresholds.
- OSC-P-28: Require new development to implement measures, as appropriate, to minimize soil erosion related to grading, site preparation, landscaping, and construction.

#### Visalia Municipal Code

• Chapter 18.04 - Agricultural Land Preservation Program: This chapter addresses the conversion of prime farmland and farmland of statewide importance through the adoption of an agricultural land preservation program.

# **Tulare County General Plan**

The 2030 Tulare County General Plan contains following goals related to agricultural resources that correlate to the proposed project:

- Promote the long-term preservation of productive and potentially productive agricultural lands and to accommodate agricultural-support services and agriculturally related activities that support the viability of agriculture and further the County's economic development goals;
- Support increased viability of agriculture production and promote high-value, employment-intensive, and diverse production, and processing in Tulare County;
- Support the reasonable development and economic viability of animal confinement facilities.

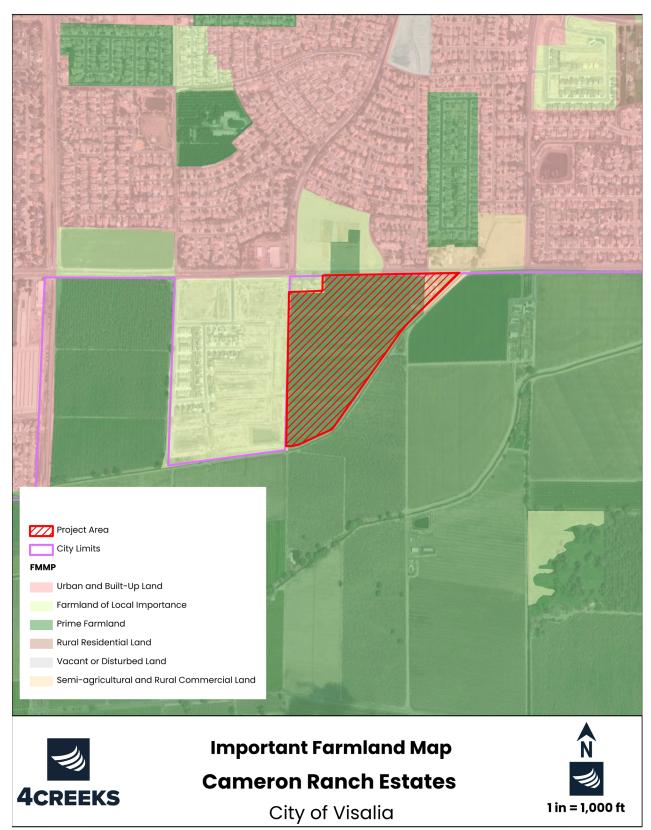


Figure 3-3: Important Farmlands Map

#### **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 with Mitigation:** The project site is currently occupied by agricultural land with orchard crops. Implementation of the proposed Project would result in the permanent conversion of approximately 41.7 acres of Prime Farmland to non-agricultural uses.

The loss of Prime Farmland on the Project Site would result in the decrease of Important Farmland inventory in the Visalia Planning Area. Visalia Planning Area currently has an Important Farmland inventory of 43,155 acres, 33,991 acres of which were categorized as Prime Farmland. Implementation of the Project would convert 41.7 acres of Prime Farmland which would result in a 0.097% percent decrease in the total Important Farmland inventory of Visalia Planning Area and a 0.123% percent decrease in the Prime Farmland inventory.

As shown in Table 3-1, the Visalia 2030 General Plan (at full buildout) plans to develop 14,265 total acres of Important Farmland, of which 12,490 acres are Prime Farmland. Most of the growth is planned to be adjacent to urbanized areas, which is much less disruptive to other agricultural uses countywide because it discourages the development of new rural neighborhoods or communities that would require the extension of infrastructure that would create growth-inducing impacts and potentially greater impacts to agricultural resources.

FMMP Designation	Existing Planning Area Total (Acres)	Planning Area Total at General Plan Buildout (Acres)	Change
Prime Farmland	33,991	21,501	-12,490 (-37%)
PHILIE FULLIANA	33,991	21,301	-12,490 (-37%)
Farmland of Statewide	7,353	6,954	-399 (-5%)
Importance			
Unique Farmland	181	137	-44 (-24%)
Farmland of Local	1,630	298	-1,333 (-82%)
Importance			
Important Farmland Total	43,155	28,890	-14,265 (-33%)

Table 3-1: Important Farmland Developed Under 2030 General Plan. Source: Visalia Planning

Area General Plan EIR

Although the proposed Site is located on Prime Farmland, the development is in accordance with the 2030 General Plan. The Site is within the Tier 2 Development Boundary and is designated as Low Density Residential by the General Plan. The Project will follow all existing and proposed 2030 General Plan policies to reduce potential impacts.

However, following Visalia Municipal Code Chapter 18.04: Agricultural Land Preservation Program, the Project will be required to preserve 32.61 acres of Prime Farmland. This mitigation measure is detailed in the Agricultural Mitigation Memo, see appendix E. There is a *less than significant impact with mitigation incorporation*.

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

**Less Than Significant Impact:** The site is currently zoned for agriculture by Tulare County. However, it is within the Visalia Planning Area Tier 2 Development Boundary and is expected to be annexed by the city. It currently has a General Plan designation of Low Density Residential that would suit the proposed project. The project site is not under a Williamson Act Contract. There is a less than significant 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 or timberland production. Therefore, *no impacts* would occur.

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

**No Impact:** No conversion of forestland, as defined under Public Resource Code or General Code, will occur as a result of the project and there would be *no impacts*.

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:** As discussed above, new developments, including the project site would be focused in and around existing communities. This would prevent new infrastructure from interfering with surrounding farmland. The project does not include any features which could result in the conversion of forestland to non-forest use. There is a *less than significant impact*.

#### Mitigation Measures for Impacts to Agricultural Resources

**Mitigation Measure AG-1:** Prior to the issuance of grading or building permits, the Project proponent shall mitigate impacts for loss of up to 32.61 acres of Prime Farmland and Farmland of Statewide Importance on the Project site at a 1:1 ratio. The amount of land requiring mitigation shall correspond to the amount of land associated with the issuance of the grading or building permit, or for residential land associated with a subdivision map, the amount of land associated with the subdivision map.

The Project proponent shall implement one or more of the following measures to mitigate the loss: Payment of in-lieu fees, mitigation banks, fee title acquisition, and/or conservation easements, on land(s) within the Southern San Joaquin Valley of California, specifically within Kern County, Tulare County, Kings County, Fresno County, or Madera County. The City shall require, at a minimum: evidence that the preserved land has adequate water supply, agricultural zoning, evidence of land encumbrance documentation, documentation that the easement/regulations are permanent and monitored, and documentation that the mitigation strategy is appropriately endowed.

This mitigation shall be verified by the City prior to issuance of grading or building permits.

# III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				☑
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?			Ø	
c) Expose sensitive receptors to substantial pollutant concentrations?			Ø	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			Ø	

# **Environmental Setting**

Air pollution is directly related to regional topography. Topographic features can either stimulate the movement of air or restrict air movement. California is divided into regional air basins based on topographic air drainage features. The proposed project site is within the San Joaquin Valley Air Basin, which is bordered by the Sierra Nevada Mountains to the East, Coastal Ranges to the West, and the Tehachapi Mountains to the South.

The mountain ranges surrounding the San Joaquin Valley Air Basin (SJVAB) serve to restrict air movement and prevent the dispersal of pollution. As a result, the SJVAB is highly susceptible to pollution accumulation over time. As shown in the Table 3-2, the SJVAB is in nonattainment for several pollutant standards. The primary pollutants of concern in the San Joaquin Valley are ozone (O3) and PM10.

Dellestant	Designation/	Designation/Classification				
Pollutant	Federal Standards	State Standards				
Ozone – One hour	No Federal Standard <sup>f</sup>	Nonattainment/Severe				
Ozone – Eight hour	Nonattainment/Extreme <sup>e</sup>	Nonattainment				
PM 10	Attainment <sup>c</sup>	Nonattainment				
PM 2.5	Nonattainment <sup>d</sup>	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

<sup>1</sup>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 3-2. San Joaquin Valley Attainment Status; Source: SJVAPCD

#### **Valley Fever**

Valley Fever is an illness caused by a fungus (*Coccidioides immitis* and *C. posadasii*) that grows in soils under certain conditions. Favorable conditions for the Valley Fever fungus include low rainfall, high summer temperatures, and moderate winter temperatures. In California, the counties with the highest incident of Valley Fever are Fresno, Kern and Kings counties. When soils are disturbed by wind or activities like construction and farming, Valley Fever fungal spores can become airborne. The spores present a potential health hazard when inhaled. Individuals in occupations such as construction, agriculture, and archaeology have a higher risk of exposure due to working in areas of disturbed soils which may have the Valley Fever fungus.

#### **Regulatory Setting**

#### City of Visalia General Plan

The 2030 General Plan includes the policies related to air quality that correlate to the proposed project:

<sup>&</sup>lt;sup>b</sup> See CCR Title 17 Sections 60200-60210

<sup>&</sup>lt;sup>c</sup> 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.

<sup>&</sup>lt;sup>d</sup> The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).

<sup>&</sup>lt;sup>e</sup> 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).

- AQ-P-2: Require use of Best Management Practices (BMPs) to reduce particulate emission as a condition of approval for all subdivisions, development plans and grading permits, in conformance with the San Joaquin Valley Air Pollution Control District Fugitive Dust Rule.
- AQ-P-9: Continue to mitigate short-term construction impacts and long-term stationary source impacts on air quality on a case-by-case basis and continue to assess air quality impacts through environmental review. Require developers to implement Best Management Practices (BMPs) to reduce air pollutant emissions associated with the construction and operation of development projects

#### 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, 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. 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 the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soils, water, visibility, materials, vegetation, and other aspects of general welfare. The U.S. EPA revoked the national 1-hour ozone standard on June 15, 2005, and the annual  $PM_{10}$  standard on September 21, 2006, when a new  $PM_{2.5}$  24-hour standard was established.

		Californi	a Standards¹	National Standards <sup>2</sup>			
Pollutan t	Averagi ng Time	Concentrati on <sup>3</sup>	Method⁴	Primar y <sup>3,5</sup>	Secondar y <sup>3,6</sup>	Method <sup>7</sup>	
	1 Hour	0.09 ppm (180 μg/m³)			Same as	Ultraviolet 8	
Ozone (03)	8 Hour	0.070 ppm (137 μg/m³)	Ultraviolet Photometry	0.075 ppm (147 μg/m³)	Primary Standard	Hour Photometry	
Respira ble	24 Hour	50 μg/m	Gravimetric or	150 μg/m³	Same as	Inertial	
Particul ate Matter (PM10)	Annual Arithme tic Mean	20 μg/m3	Beta Attenuation		Primary Standard	Separation and Gravimetric Annual Analysis	
Fine Particul	24 Hour		Gravimetric or	35 μg/m³	Same as	Inertial Separation and	
ate Matter (PM <sub>2.5</sub> )	Annual Arithme tic Mean	12 μg/m³	Beta Attenuation	15 μg/m³	Primary Standard	Gravimetric Annual Analysis	
	1 Hour	20 ppm (23 mg/m³)	Non Dianaraiya	35 ppm (40 mg/m³)		Non Dianaraiya	
Carbon Monoxid e (CO)	8 Hour	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Photometry	9 ppm (10 mg/m³)		Non-Dispersive Infrared Photometry	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	(NDIR)			(NDIR)	
Nitrogen Dioxide	l Hour	0.18 ppm (339 μg/m³)	Gas Phase Chemiluminesc	100 ppb (188 μg/m³)		Gas Phase Annual	
(NO <sub>2</sub> ) <sup>8</sup>	Arithme tic Mean	0.030 ppm (57 μg/m³)	ence	53 ppb (100 μg/m³)	Same as Primary Standard	Chemiluminesc ence	
Sulfur Dioxide	1 Hour	0.25 ppm (655 μg/m³)	Ultraviolet Fluorescence	75 ppb (196 μg/m³)		Ultraviolet Fluorescence; Spectrophotom	
	3 Hour				0.5 ppm	etry	

Delleston	A:	Californi	a Standards¹	National Standards <sup>2</sup>		
Pollutan t	Averagi ng Time	Concentrati on <sup>3</sup>	Method⁴	Primar y <sup>3,5</sup>	Secondar y <sup>3,6</sup>	Method <sup>7</sup>
					(1300	(Pararosaniline
					μg/m³)	Method)
				0.14		
		0.04 ppm		ppm		
	24 Hour	(105 μg/m³)		(for		
		( μ.θ/ /		certain		
				areas)9		
				0.030		
	Annual			ppm		
	Arithme tic Mean			(for certain		
	tic Mean			areas)9		
	30 Day			ureusja		
	Average	1.5 μg/m³				
	7.11 0.1 0.1 0.1			1.5		
	Calend			μg/m3		High Volume
Lead <sup>10,11</sup>	ar		Atomic	(for	Canaaaa	Sampler and
Lead	Quarter		Absorption	certain	Same as Primary	Atomic
				areas)11	Standard	Absorption
	Rolling			0.15	o con roon or	
	3-Month			μg/m³		
	Average		6.	. 0		
Visibility			Beta			
Reducin	8 Hour	See	Attenuation and Transmittance			
g Particles	o rioui	footnote 12	through Filter			
12			Tape			
			lon			
Sulfates	24 Hour	25 μg/m³	Chromatograph		No National S	Standard
			у			
Hydroge	1 Hour	0.03 ppm	Ultraviolet			
n Sulfide	TTIOUI	(42 μg/m³)	Fluorescence			
Vinyl		0.01ppm	Gas			
Chloride	24 Hour	(00 / 3)	Chromatograph			
10		(26 μg/m³)	У			

<sup>1.</sup> California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>2.</sup> National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration

Pollutan Averagi		California Standards <sup>1</sup>		National Standards <sup>2</sup>		
	ng Time	Concontrati	Method <sup>4</sup>	Primar	Secondar	Method <sup>7</sup>
,	ng mic	on <sup>3</sup>	Metriou	y <sup>3,5</sup>	<b>y</b> <sup>3,6</sup>	Metriod

above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

- 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
- 5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
- 8. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.
- 9. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 10. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 11. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 12. In 1989, the ARB 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.

Table 3-3. Ambient Air Quality Standards; Source: SJVAPCD

# San Joaquin Valley Air Pollution Control District (SJVAPCD)

The SJVAPCD is responsible for enforcing air quality standards in the project area. To meet state and federal air quality objectives, the SJVAPCD adopted the following thresholds of significance for projects:

		Operatio	onal Emissions
Pollutant/Precursor	Construction Emissions	Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
СО	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. SJVAPCD Thresholds of Significance for Criteria Pollutants; Source: SJVAPCD

The following SJVAPCD rules and regulations may apply to the proposed project:

- 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 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 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.

# **Discussion**

# **a)** Would the project conflict with or obstruct implementation of the applicable air quality plan?

**No Impact:** The proposed project is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and would result in air pollutant emissions that are regulated by the air district during both its construction and operational phases. The SJVAPCD is responsible for bringing air quality in the Visalia Planning Area into compliance with federal and state air quality standards. The Air District has Particulate Matter (PM) plans, Ozone Plans, and Carbon Monoxide Plans that serve as the clean air plan for the basin.

Together, these plans quantify the required emission reductions to meet federal and state air quality standards and provide strategies to meet these standards. The SJVAPCD adopted the Indirect Source Review (ISR) Rule in order to fulfill the District's emission reduction commitments in its PM10 and Ozone (NOx) attainment plans and has since determined that implementation and compliance with ISR would reduce the cumulative PM10 and NOx impacts anticipated in the air quality plans to a less than significant level.

**Construction Phase.** Project construction would generate pollutant emissions from the following construction activities: site preparation, grading, building construction, application of architectural coatings, and paving. The construction related emissions from these activities were calculated using CalEEMod. The full CalEEMod Report can be found in

Appendix A. As shown in Table 3-5 below, project construction related emissions do not exceed the thresholds established by the SJVAPCD.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	Nox (tpy)	PM10 (tpy)	PM2.5 (tpy)
Emissions Generated from Project	3.1328	3.3011	.00879	2.3860	0.9043	0.4186
Construction  SJVAPCD Air Quality	100	10	07	10	15	15
Thresholds of Significance	100	10	27	10	15	15

<sup>\*</sup>Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.

Table 3-5. Projected Project Emissions Compared to SJVAPCD Thresholds of Significance for Criteria Pollutants related to Construction; Source: SJVAPCD, CalEEMod (v. 2020.4.0)

Analysis (Appendix A)

**Operational Phase.** Implementation of the proposed project would result in long-term emissions associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products, as well as mobile emissions. Operational emissions from these factors were calculated using CalEEMod. The full CalEEMod report can be found in Appendix A. As shown in Table 3-6 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)
Operational Emissions (Dry Years)	7.2782	2.3082	0.0158	1.2469	1.6643	0.4735
SJVAPCD Air Quality Thresholds of Significance	100	10	27	10	15	15

Table 3-6. Projected Project Emissions Compared to SJVAPCD Thresholds of Significance for Criteria Pollutants related to Operations; Source: SJVAPCD, CalEEMod (v. 2020.4.0)

Analysis (Appendix A)

Because the emissions from both construction and operation of the proposed project would be below the thresholds of significance established by the SJVAPCD, the project would not conflict with or obstruct implementation of an applicable air quality plan and there is *no impact*.

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 Visalia 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) Would the project expose sensitive receptors to substantial pollutant concentrations?

**Less than Significant Impact:** The single-family residences located to the North and to the West are the closest sensitive receptors. The project does not include any project components identified by the California Air Resources Board that could potentially impact any sensitive receptors. These include heavily traveled roads, distribution centers, fueling stations, and dry-cleaning operations. The project would not expose sensitive receptors to substantial pollutant concentrations. The impact would be *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: The project will create temporary localized odors during project construction. The proposed project will not introduce a conflicting land use (surrounding land includes residential neighborhoods) to the area and will not have any component that would typically emit odors. The project would not create objectionable odors affecting a substantial number of people. Therefore, impacts would be 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?		Ø		
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?				v
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through director removal, filling, hydrological interruption, or other means?			☑	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			Ø	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				V
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?				Ø

# **Environmental Setting**

The Project site is in the eastern portion of the Visalia Planning Area within the lower San Joaquin Valley, in the Central Valley of California. The Central Valley is bordered to the east by the Sierra Nevada Mountain Range to the east and the Coast Ranges to the west. Like most of California, Visalia is considered a Mediterranean climate.

Warm, dry summers are followed by cool, moist winters. Summer temperatures often reach above 90 degrees Fahrenheit, and the humidity is relatively low. Winter temperatures are often below 60 degrees Fahrenheit during the day and rarely exceed 70 degrees. On average, Visalia receives approximately 11 inches of precipitation in the form of rainfall yearly, most of which occurs between October and March.

# **Site Description**

The topography of the Project Area is relatively flat. The property is composed of approximately 41.7 acres of active agricultural land and 1.9 acres that is landscaped and contains one large single-family residence. The proposed Project site is in an urban and agricultural interface environment just outside the southern boundary of the City of Visalia. The proposed Project site is bounded by agricultural fields to the south and east, with single family homes north and east.

One small, unvegetated open water canal extends along the southeast edge of the site and drains westward where it eventually connects to Cameron Creek. This canal is maintained with no vegetation in the channel. No potentially jurisdictional waters or wetland features occur within the proposed Project Area and no signs of pooling water, vernal pool habitat, or seasonal wetlands have been identified. The area is active agricultural land and is actively maintained. The site contains orchard trees, but no valley oak trees were identified within the project area.

The orchard trees may provide limited nesting and foraging habitat for birds and wildlife; however the value of this habitat is relatively low due to the ongoing agricultural operations.

# **Regulatory Setting**

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

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712): FMBTA 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. Although the USFWS and its parent administration, the U.S. Department of the Interior, have traditionally interpreted the FMBTA as prohibiting incidental as well as intentional "take" of birds, a January 2018 legal opinion issued by the Department of the Interior now states that incidental take of migratory birds while engaging in otherwise lawful activities is permissible under the FMBTA. However, 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.

**Birds of Prey (CA Fish and Game Code Section 3503.5):** Birds of prey are protected in California under provisions of the Fish and Game Code (Section 3503.5), which states that it is unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks and eagles) or Strigiformes (owls), as well as their nests and eggs. The bald eagle and golden eagle are afforded additional protection under the federal Bald and Golden Eagle Protection Act (16 USC 668), which makes it unlawful to kill birds or their eggs.

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 fill 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):** prohibits the take of any state-listed threatened and endangered species. CESA defines *take* as "any action or attempt to hunt, pursue, catch, capture, or kill any listed species." If the proposed project results in a take of a listed species, a permit pursuant to Section 2080 of CESA is required from the CDFG.

**City of Visalia Oak Tree Ordinance:** The City of Visalia has an oak tree ordinance that protects valley oak trees with a diameter at breast height (dbh) of 2 inches or greater. Under this ordinance, removal, or encroachment within the drip-line of or damage to valley oak trees is prohibited. Removal requires a permit from the city manager and mitigation either by replacement in-kind or payment of an in-lieu fee to be used for oak tree planting.

**Visalia Planning Area General Plan:** The Visalia Planning Area General Plan contains the following policies related to the preservation of biological resources that may be considered relevant to the proposed Project's environmental review:

- OSC-P-8 Protect, restore, and enhance a continuous corridor of native riparian vegetation along Planning Area waterways, including the St. Johns River; Mill, Packwood, and Cameron Creeks; and segments of other creeks and ditches where feasible, in conformance with the Parks and Open Space diagram of this General Plan.
- OSC-P-19 Establish easements or require dedication of land along waterways to protect natural habitat areas, allow maintenance operations and promote trails and bike paths.
- OSC-P-26 Establish Best Management Practices (BMPs) for control of invasive plant species where such plants could adversely impact wildlife habitat.

- OSC-P-27 Establish a "no net loss" standard for sensitive habitat acreage, including wetlands and vernal pools potentially affected by development.
- OSC-P-30 Require assessments of biological resources prior to approval of any discretionary development projects involving riparian habitat, wetlands, or special status species habitat. Early in the development review process, consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and other agencies.
- OSC-P-31 Protect and enhance habitat for special status species, designated under state
  and federal law. Require protection of sensitive habitat areas and special status species
  in new development in the following order: 1) avoidance; 2) onsite mitigation, and 3) offsite
  mitigation.

#### **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 & Game or U.S. fish and Wildlife Service?

Less Than Significant Impact with Mitigation: The site has no known species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. While no candidate, sensitive, or special status species have been identified within the project area, the orchards located on the site may contain suitable habitat for nesting birds and bats. Additionally, CNDDB results noted the presence of San Joaquin Kit Fox within ½ mile of the project site. Implementation of Mitigation Measures BIO-1a and BIO-1b will reduce any potential impacts to these species to less than significant levels.

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 Game or US Fish and Wildlife Service?

**No Impact:** There are no CNDDB-designated "natural communities of special concern" recorded within the proposed Project area or surrounding lands. The Visalia General Plan identifies Grasslands, Valley Oak Riparian Woodland, Valley Oak Woodland, Vernal Pools, and Wetlands as vegetation communities to protect. No Grasslands, Valley Oak Riparian Woodland, Valley Oak Woodland, Vernal Pools, or Wetlands are found within the Project site. The proposed Project site consists of agricultural fields and there would be *no impact*.

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?

Less than Significant Impact: The project is not located within or adjacent to federally

protected wetlands as defined by Section 404 of the Clean Water Act. City-wide biological resources were evaluated in the Visalia General Plan Update Environmental Impact Report (EIR). The EIR concluded that certain protected wetlands and other waters may be directly or indirectly affected by future development within the General Plan Planning Area. Such effects would be considered significant. However, the General Plan contains multiple polices, identified under Impact 3.8-3 of the EIR, that together work to reduce the potential for impacts on wetlands and other waters located within in the Planning Area. With implementation of these policies, impacts on wetlands will be *less than significant impact*.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

**Less than Significant Impact:** The proposed Project area is surrounded by cultivated agricultural lands, residential development, and paved roads. Therefore, the proposed Project area does not contain features that would be likely to function as a wildlife movement corridor.

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

**No Impact:** The project will not conflict with any local policies or ordinances protecting biological resources. The City has a municipal ordinance in place to protect valley oak trees; however no oak trees exist on the site. There would be *no impact*.

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

**No Impact**: There are no habitat conservation plans or Natural Community Conservation Plans (NCCP) in the proposed Project area. There would be *no impact*.

#### Mitigation Measures for Impacts to Biological Resources

# Mitigation Measure BIO-1a: Nesting Bird, Roosting Bat, San Joaquin Kit Fox Den Survey

If project-related activities are scheduled between February 1 to August 31 (the typical nesting season), a focused survey for nests, roosts, burrows or dens shall be conducted by a Designated Biologist within fourteen (14) calendar days prior to the beginning of Project-related activities. The Designated Biologist shall survey a minimum radius of 500-feet for Migratory Bird Treaty Act birds around the Project Area and for sign of roosting bats. If no active nests, roosts, burrows or dens are found, project activities may proceed as scheduled.

#### Mitigation Measure BIO-1b: Active Nests or Roosts or Burrows or Dens

If an active nest, roost or burrow or den is located, then active nests, roosts or burrows or dens shall be avoided, and a no-disturbance or destruction buffer shall be determined and

established by a Designated Biologist. The buffer shall be kept in place until after the breeding nesting season or the Designated Biologist confirms the young have fledged, are foraging independently, and the nest or burrow is no longer active for the season. The extent of these buffers shall be determined by the Designated Biologist and will depend on the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

If an active San Joaquin kit fox den is located, then consultation with the USFWS would be required in order to document this federally listed species presence in the Project Area.

#### 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		$\boxtimes$		
Section 15064.5?				
b) Cause a substantial adverse				
change in the significance of	П	$\square$	П	П
an archaeological resource	_	_	_	_
pursuant to Section 15064.5?				
c) Disturb any human remains,				
including those interred		$\boxtimes$		
outside of formal cemeteries?				

A Phase 1 cultural resources assessment for the Cameron Ranch Housing Subdivision was conducted by Soar Environmental (Appendix C). The Project proposes to construct 178 single-family housing units on 43.6-acres; Accessor Parcel Numbers (APNs) 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007. The Project is subject to the California Environmental Quality Act (CEQA).

#### **Environmental Setting**

The Project area is in the Southern Valley Yokuts ethnographic territory of the San Joaquin Valley and located between the Kings River and the north shore of Tulare Lake. The Yokuts were generally divided into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts. The Project area is likely within the Telamni Yokuts territory. The main village for this area was Waitatshuulul, which was approximately 3 miles east of the Project site along Packwood Creek.

The San Joaquin Valley did not experience contact with Europeans until the late 1700s. The earliest exploration of the San Joaquin Valley by Europeans was likely by the Spaniards when in the fall of 1772 a group known as the Catalonian Volunteers entered the valley through Tejon Pass in search of deserters from the Southern California Missions. However, the group only made it as far north as Buena Vista Lake in modern day Kern County before turning around due to the extensive swamps. Initial settlement within the valley by Europeans in the 1830s was largely either by trappers or horse thieves. With the end of the Mexican American War and the beginning of the gold rush in 1848, the San Joaquin Valley became more populated with ranchers and prospectors. By 1850, California became a state, and Tulare County was established in 1853. Visalia, founded in 1852, is one of the oldest cities in the Southern San Joaquin Valley. During the first few decades,

Visalia was a supply center for nearby gold rushes, and had an agricultural economy based on livestock and some agriculture.

#### **Cultural Records Search**

The Project area is located in the USGS Visalia 7.5' Series Quadrangle (USGS 2021). On March 1, 2024, Soar Environmental submitted a records search request to the Southern San Joaquin Valley Information Center (SSJVIC) located at the California State University, Bakersfield (Appendix C). The records search included a 0.5-mile buffer around the Project area. The results from the records search indicate three (3) cultural resource studies have been conducted within the Project area. According to the information on file, there is two (2) resource within the Project area. These resources, however, were identified outside of the proposed 178-unit single family housing subdivision. As such, these resources will not be effected by the proposed project subdivision construction and staging activities. There are four (4) recorded resources within the 0.5-mile record search radius. There are no recorded cultural resources within the Project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

#### **AB 52 Native American Consultation**

In accordance with AB 52, Native American Tribes that could potentially be impacted by the Project were contacted. The tribes that were formally noticed of this Project were the Santa Rosa Rancheria Tachi Yokut Tribe, Tule River Indian Tribe, and the Wuksache Indian Tribe/Eshom Valley Band. These Rancherias are not located within the City limits.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Soar Environmental did not receive comments from the Tulare County Native American groups or affiliated individuals regarding the proposed development at the project location.

#### **Regulatory Setting**

In this report "cultural resources" are defined as prehistoric or historical archaeological sites as well as historical objects, buildings, or structures. In accordance with 30 Code of Federal Regulations (CFR) §60.4, "historical" in this report applies to cultural resources which are 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 or state level in the California Register of Historical Resources (CRHR), or at 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 statue 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 inclusion in the NRHP are deemed "historic properties."

#### **National Historic Preservation Act**

The National Historic Preservation Act was adopted in 1966 to preserve historic 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 Register of Historical Resources

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California PRC § 5020.1[j]) (State of California 2021). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California PRC § 5024.1(a)). The criteria for listing resources on the CRHR, enumerated in the following text, were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to California PRC § 5024.1(c) (1– 4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

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

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the National

Register of Historic Places (NRHP), and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

#### City of Visalia General Plan

Under Chapter 3, the City's Role and Tools for Preservation, in the General Plan of the City of Visalia defines a "cultural resources" as:

- Chapter 3.3: Sites, structures, or any other physical evidence associated with human activity considered important to be culturally important. This includes archaeological resources and contemporary Native American resources in addition to the historic resources that are the subject of this chapter. Impacts of development on cultural resources of all kinds must be avoided to the greatest extent possible, as described by policies in Chapter 6: Open Space and Conservation.
- Under **Chapter 6**, Open Space and Conservation, within the General Plan of the City of Visalia the following policies are outlined for the preservation of cultural resources:
- **Chapter 6.5**: OSC-P-39 Establish requirements to avoid potential impacts to sites suspected of being archeologically, paleontologically, or historically significant or of concern, by:
  - Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive.
  - Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA).
  - Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity.
  - Implementing appropriate measures to avoid the identified impacts, as conditions of project approval.

In the event that previously unidentified historical, archaeological, or paleontological resources are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected. A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures, or appropriate mitigation should be completed, according to CEQA Guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archaeological Resource Management Reports that will be used as guidelines.

#### **Discussion**

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

Less Than Significant Impact with Mitigation: A records search was conducted on behalf of the Applicant from the SSJVIC of the CHRIS at California State University in Bakersfield, California, to determine if historical or archaeological sites had previously been recorded within the study area, if the Project area had been systematically surveyed by archaeologists prior to the initial study, and/or whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive.

According to the SSJVIC records search, there have been three previous cultural resource studies within the Project area. According to the information on file, there is two resources within the Project area. These resources, however, were identified outside of the proposed 178-unit single family housing subdivision. As such, these resources will not be effected by the proposed project subdivision construction and staging activities.

Additionally, there are four recorded resources and two reports identified within the 0.5-mile radius of the Project area. However, there are no recorded cultural resources within the Project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

There appears to be a low possibility for subsurface cultural resources in the Project area, based on the results of the archival research, and the fact that the two known resources detected during previous disturbances within the Project area will not be effected by subdivision construction. Although no significant cultural resources were identified on the site, the presence of remains or unanticipated cultural resources under the ground surface is possible. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that impacts to this checklist item will be *less than significant with mitigation* incorporation.

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: There are no known archaeological resources located within the Project area. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that potential impact to unknown archeological resources will be less than significant with mitigation incorporation.

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

**Less Than Significant Impact with Mitigation**: There are no known human remains buried in the project vicinity. If human remains are unearthed during project construction, there is a potential for a significant impact. As such, implementation of Mitigation Measure CUL-2 will ensure that impacts remain *less than significant with mitigation* incorporation.

#### Mitigation Measures for Impacts to Cultural Resources

**Mitigation Measure CUL-1**: If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance.

If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

Mitigation Measure CUL-2: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

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

# **Environmental Setting**

Southern California Edison (SCE) provides electricity services to the City of Visalia. SCE serves approximately 15 million people in a 50,000 square-mile area of Central, Coastal, and Southern California. SCE supplies electricity to its customers through a variety of renewable and nonrenewable sources. Table 3-8 below shows the proportion of each energy resource sold to California consumers by SCE in 2022 as compared to the statewide average.

Fuel Type		SCE Power Mix	California Power Mix	
Coal		0%	2.15%	
Large Hydroelectric		3.4%	9.24%	
Natural Gas		24.7%	36.38%	
Nuclear		8.3%	9.3%	
Other (Oil/Petroleum Coke/Waste Heat)		0.1%	0.11%	
Unspecified Sources of Power <sup>1</sup>		30.3%	7.11%	
	Biomass	0.1%	2.15%	
	Geothermal	5.7%	4.67%	
Fligible	Small Hydro	0.5%	1.12%	
Eligible Renewables	Solar	17%	17.04%	
Reflewables	Wind	9.8%	10.83%	
	Total Eligible Renewable	33.1%	35.81%	

<sup>1. &</sup>quot;Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

Table 3-8 2022 SCE and 2022 State power resources; Source: SCE; California Energy Commission

SCE also offers Green Rate Options, which allow consumers to indirectly purchase up to 100% of their energy from renewable sources. To accomplish this, SCE purchases the renewable energy necessary to meet the needs of Green Rate participants from solar renewable developers.

Southern California Gas (SoCalGas) Company provides natural gas services to the project area. Natural gas is an energy source developed from fossil fuels composed primarily of methane (CH4). Approximately 45% of the natural gas burned in California is used for electricity generation, while 21% is consumed by the residential sector, 25% is consumed by the industrial sector, and 9% is consumed by the commercial sector.

# **Regulatory Setting**

#### California Code of Regulations, Title 20

Title 20 of the California Code of Regulations establishes standards and requirements for appliance energy efficiency. The standards apply to a broad range of appliances sold in California.

# California Code of Regulations, Title 24

Title 24 of the California Code of Regulations is a broad set of standards designed to address the energy efficiency of new and altered homes and commercial buildings. These standards regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. Title 24 requirements are enforced locally by the City of Selma Building Department.

## California Green Building Standards Code (CALGreen)

CalGreen is a mandatory green building code that sets minimum environmental standards for new buildings. It includes standards for volatile organic compound (VOC) emitting materials, water conservation, and construction waste recycling.

#### **SB 100**

SB 100, passed in 2018, set a deadline in 2045 for 100% of energy to be renewable. Additionally, by 2030, 60% of all energy must be renewable. California is targeting this goal through solar and other renewable sources.

#### **AB 178**

For California to meet its renewable goals, AB 178 was passed in 2018. AB 178 states that starting in 2020 all new low rise residential buildings must be built with solar power.

#### City of Visalia General Plan

The 2030 General Plan includes the policies related to energy use that correlate to the proposed project:

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.

#### **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 single-family housing. During project construction there would be an increase in energy consumption related to worker trips and operation of construction equipment. This increase in energy use would be temporary and limited to the greatest extent possible 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, and Year 2024 gasoline/diesel MPG factors provided by the EMFAC2017. To simplify the estimation process, it was assumed that all worker vehicles used gasoline as a fuel source and all vendor vehicles used diesel as a fuel source. Table 3-9, below, provides gasoline and diesel fuel used by construction and on-road sources during each phase of project construction.

Construction Phase	# of Days	Daily Worker Trips <sup>1</sup>	Daily Vendor Trips <sup>1</sup>	Daily Hauling Trips <sup>1</sup>	Total Gasoline Fuel Use (gallons) <sup>2</sup>	Total Diesel Fuel Use (gallons) <sup>2</sup>
Site Preparation	30	18	0	0	7,799	0
Grading	75	20	0	0	33,871	0
Building Construction	740	303	112	0	164,425	717,770
Paving	55	15	0	0	8,836	0
Architectural Coating	55	61	0	0	1,244	0
Total	955	N/A	N/A	N/A	216,436	717,770

<sup>1.</sup> Data provided by CalEEMod (Appendix A)

Table 3-9. On-Road Mobile Fuel Use Generated by Construction Activities. Source: CalEEMod(v. 2020.4.0); EMFAC2014

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 and would be limited to the greatest extent possible through compliance with local, state, and federal regulations. Once construction

<sup>2.</sup> See Appendix D

is complete, the project is expected to achieve net zero energy consumption. The proposed project is subject to the California New Residential Zero Net Energy Action Plan 2015–2020. This plan establishes a goal for all residential buildings built after January 1, 2020, to be zero net energy. The California Energy Commission is responsible for the development and enforcement of specific strategies to achieve this goal. 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.

Total Annual Operational VMT <sup>1</sup>	Annual Fuel Use	Annual Fuel Use	Average
	(Gasoline)	(Diesel)	MPG
4,356,848 Miles	166,928 Gallons	18,735 Gallons	14.55

- 1. Data Provided by CalEEMod
- 2. See Appendix D

Table 3-10. On-Road Mobile Fuel Use Generated by Operational Activities. Source CalEEMod (v. 2020.4.0); EMFAC2014

During project operations, the proposed project is not anticipated to result in wasteful fuel consumption. This is due to the distance of the project site to the commercial, recreational, and other residential uses, resulting in less reliance on personal vehicles. As seen in Table 3-10 the project's total annual operational vehicle miles traveled (VMT) amount to 4,356,848 miles, with an annual consumption of 166,928 gallons of gasoline and 18,735 gallons of diesel, yielding an average MPG of 14.55.

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, Section 6, and these standards were specifically developed to achieve net zero energy for residential projects, it can be presumed that the project will achieve net zero energy. The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. 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 proposed project will comply with all state and local policies related to energy efficiency and there is no impact.

# VII. GEOLOGY AND SOILS

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

# **Environmental Setting**

# **Geologic Stability and Seismic Activity**

# • Seismicity

The Visalia Planning Area has no known major fault systems within its boundaries. There are small faults in the Southern San Joaquin Valley, approximately 30 miles away, though none of them are known to be active. The greatest potential for seismic activity in Visalia Planning Area is posed by the San Andreas Fault, approximately 75 miles

away from the site, or the Owens Valley Fault Group, which is located approximately 125 miles away from the project site.

## Liquefaction

Liquefaction is a phenomenon whereby unconsolidated and/or near saturated soils lose cohesion and are converted to a fluid state as a result 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. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Liquefaction hazards may exist in and around wetland areas and creeks, though soil types are generally too coarse or too high in clay content, and not likely to be subject to sufficient acceleration to cause 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 are caused by both natural and human-induced changes in slope stability and often accompany other natural hazard events, such as floods, wildfire, or earthquake. Due little elevation changes throughout the planning area, including the proposed project site, it is considered a low landslide hazard area.

#### Subsidence

Land Subsidence refers to the vertical sinking of land because of either manmade or natural underground voids. Subsidence has occurred throughout the Central Valley because of groundwater, oil, and gas withdrawal. The Kaweah Subbasin that underlies the Planning Area is in an overdraft condition on an average long-term basis. According to the most recent Urban Water Management Plan (UWMP), groundwater elevations have declined up to 50 feet between 1990 and 2010. While groundwater recharge efforts are in progress, groundwater levels will continue to decline unless recharge is increased.

#### **Soils Involved in Project**

The proposed project involves construction on two soil types. The properties of the soil are described briefly below:

- Grangeville Sandy Loam: The Grangeville series consists of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium dominantly from granitic rock sources. Grangeville soils are on alluvial fans and floodplains and have slopes ranging from 0 to 2 percent. It is somewhat poorly drained; this soil has altered drainage because of the dams and reservoirs in the Sierra Nevada, pumping from the water table, tile and interceptor drains, and filling and leveling of sloughs in the vicinity. Negligible to very low runoff; moderately rapid permeability and moderate permeability in saline-sodic phases.
- Fraint-Rock Outcrop Complex: The Friant series consists of shallow, well drained soils that
  formed in material weathered from mica schist, quartz schist and gneiss. Friant soils are on
  mountainous uplands and have slopes of 9 to 75 percent. It is Well drained; medium to very
  rapid runoff; moderately rapid permeability.

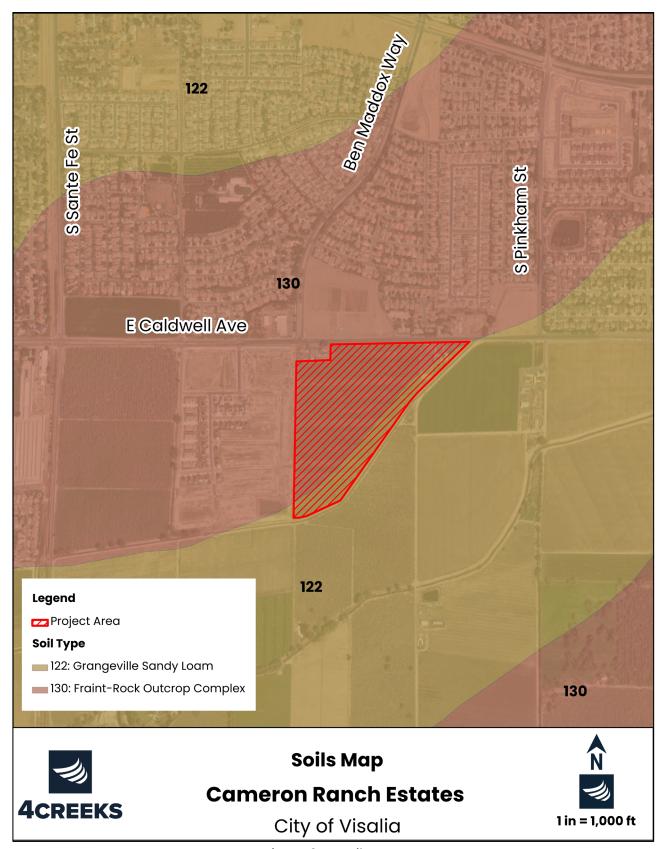


Figure 3-4: Soils Map

# **Regulatory Setting**

## California Building Code

The California Building Code (CBC) 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 Visalia Municipal Code (California Building Code)

The City of Visalia Municipal Code has incorporated and adopted the CBC, 2013 Edition, as promulgated by the California Building Standards Commission, which incorporates the adoption of the 2012 edition of the of the International Building Code, as amended with necessary California amendments and the 2012 International Building Code of the International Code Council.

#### City of Visalia General Plan

The 2030 General Plan includes the policies related to geology and soils that correlate to the proposed project:

• OSC-P-28: Require new development to implement measures, as appropriate, to minimize soil erosion related to grading, site preparation, landscaping, and construction.

#### **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:** Although the project is located in an area of relatively low seismic activity, the project site has a low chance of being affected by ground shaking from distant 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 does not propose any components which could cause substantial adverse effects in the event of an earthquake. Additionally, the project has no potential to cause the rupture of an earthquake fault indirectly or directly. Therefore, there is *no impact* related to the risk of loss, injury or death involving a rupture of a known earthquake fault.

ii. Strong seismic ground shaking?

**No Impact:** The project site is in an area of 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. There is *no impact*.

#### iii. Seismic-related ground failure, including liquefaction?

**No Impact:** The risk of liquification within the planning area outside of wetland areas is low because the soil types are generally unsuitable for liquefaction. The area's low potential for seismic activity would further reduce the likelihood of liquefaction occurrence. Because the project site is within an area of low seismic activity, and the soils associated with the project area not suitable for liquefaction, there are *no impacts*.

#### iv. Landslides?

**No Impact:** The Planning Area of Visalia is considered at insignificant risk of small landslides. Additionally, the project site is generally flat and there are no hill slopes in the area. No geologic landforms exist on or near the site that would result in a landslide event. As a result, there is very low potential for landslides. There would be *no impact*.

# 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 will be temporary and subject to best management practices (BMPs) required by SWPPP, which are developed to prevent significant impacts related to erosion from construction. Because impacts related to erosion would be temporary and limited to construction, and because required best management practices would prevent significant impacts related to erosion, the impact will remain 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?

**No Impact:** The soils associated with the project site are considered stable and have a low capacity for landslides, lateral spreading, subsidence, liquefaction, or collapse. Because the project area is stable, and this project would not result in a substantial grade change to the topography to the point that it would increase the risk of landslides, lateral spreading, subsidence, liquefaction or collapse, there is *no impact*.

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 proposed project site is not in an area with expansive soils. Because the soils associated with the project do not exhibit shrink swell behavior, implementation of the project will pose no risk to life or property caused by expansive soils and there is *no impact*.

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 waste water?

**No Impact:** The proposed project would not include the use of septic tanks or any other alternative wastewater disposal systems. The proposed buildings will tie into the Visalia's existing sewer services. Therefore, there would be *no impact*.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation: There are no unique geologic features and no known paleontological resources located within the project area. However, there is always the possibility that paleontological resources may exist below the ground surface. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that any impacts resulting from project implementation remain less than significant with mitigation incorporation.

#### Mitigation Measures for Impacts to Geological Resources

**Mitigation Measure CUL-1:** If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance.

If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

Mitigation Measure CUL-2: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

#### VIII. GREENHOUSE GAS EMISSIONS

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

# **Environmental Setting**

Natural processes and human activities emit greenhouse gases. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 34°C cooler. However, it is believed that emissions from 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.

The effect of greenhouse gasses on earth's temperature is equivalent to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxide, ozone, chlorofluorocarbons, hydro chlorofluorocarbons, and hydro fluorocarbons, per fluorocarbons, sulfur, and hexafluoride. Some gases are more effective than others. The Global Warming Potential (GWP) has been calculated for each greenhouse gas to reflect 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.

GHGs as defined by AB 32 include the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs as defined by AB 32 are summarized in Table 3-11. Each gas's effect on climate change depends on three main factors. The first being the quantity of these gases are in the atmosphere, followed by how long they stay in the atmosphere and finally how strongly they impact global temperatures.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Methane (CH4)	Is a flammable gas and is the main component of natural gas	12 years	21	Emitted during the production and transport of coal, natural gas, and oil.  Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
Carbon dioxide (CO2)	An odorless, colorless, natural greenhouse gas.	30-95 years	1	Enters the atmosphere through burning fossil fuels (coal, natural gas, and oil), solid waste, trees and wood products, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
Chloro- fluorocarbons	Gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are non-toxic nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	55-140 years	3,800 to 8,100	Were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Hydro- fluorocarbons	A man-made greenhouse gas. It was developed to replace ozone-depleting gases found in a variety of appliances. Composed of a group of greenhouse gases containing carbon, chlorine an at least one hydrogen atom.	14 years	140 to 11,700	Powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozonedepleting substances. These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases.
Nitrous oxide (N2O)	Commonly known as laughing gas, is a chemical compound with the formula N2O. It is an oxide of nitrogen. At room temperature, it is a colorless, non-flammable gas, with a slightly sweet odor and taste. It is used in surgery and dentistry for its anesthetic and analgesic effects.	120 years	310	Emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
Pre- fluorocarbons	Has a stable molecular structure and only breaks down by ultraviolet rays about 60 kilometers above Earth's surface.	50,000 years	6,500 to 9,200	Two main sources of pre- fluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	An inorganic, odorless, colorless, and nontoxic nonflammable gas.	3,200 years	23,900	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing and as a tracer gas.

Table 3-11. Greenhouse Gasses; Source: EPA, Intergovernmental Panel on Climate Change

Regarding the quantity of these gases in the atmosphere, we first must establish the amount of the 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 these measurements in more relatable terms, one part per million is equivalent to one drop of water diluted into about 13 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.

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 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**

#### **AB 32**

AB 32 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 1078, SB 107, and Executive Order S-14-08

SB 1078, SB 107, and Executive Order S-14-08 require 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.

### San Joaquin Valley Air Pollution Control District

SJVAPCD adopted a Climate Change Action Plan (CCAP) in August 2008. While the plan does not have regulatory powers, it directs SJVAPCD to develop guidance to assist District staff, valley businesses, land-use agencies, and other permitting agencies in addressing GHG emissions as part of the CEQA process.

# City of Visalia Climate Action Plan (CAP)

Visalia's draft 2013 CAP includes a baseline GHG emissions inventory of municipal and community emissions, identification, and analysis of existing and proposed GHG reduction measures, and reduction targets to help Visalia work toward the State's goal of an 80 percent reduction below baseline emissions by 2050. The plan sets 2020 and 2030 reduction targets, and includes reduction actions for energy, transportation, and waste and resource conservation.

### City of Visalia Climate Change Initiatives

In January 2007, Visalia's mayor signed the "Cool Cities" pledge, part of the U.S. Mayors Climate Protection Agreement. By entering into this agreement, the City has adopted the goal of

reducing citywide GHG emissions to 7% below 1990 levels by 2012. As detailed in the CAP, this goal was subsequently expanded in response to ARB's recommended reduction target of 15% below the 2005 baseline, and the City added a 2030 mitigation target to correlate with the 2030 General Plan Update and the goal of achieving an 80% reduction by 2050.

### **Discussion**

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

Less Than Significant Impact: The SJVAPCD does not provide numeric thresholds to assess the significance of greenhouse gas emissions. Instead, the SJVAPCD "Guidance for Valley Land Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA" states that projects which achieve a 29% GHG emission reduction compared to Business as Usual (BAU) would be determined to have a less than significant individual and cumulative impact for GHG. "Business as usual" (BAU) conditions are defined based on the year 2005 building energy efficiency, average vehicle emissions, and electricity energy conditions. The BAU conditions assume no improvements in energy efficiency, fuel efficiency, or renewable energy generation beyond that existing today. The 2005 BAU conditions were estimated using CalEEMod.

Implementation of the proposed project would result in long-term greenhouse gas emissions associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products, as well as mobile emissions. The GHG emissions were estimated using CalEEMod (Appendix A & B).

	C02 (MT/Year)	CH4 (MT/Year)	N20 (MT/Year)	CO2e (MT/Year)
Operational	1,912.49	2.67	0.085	2,004.79
Emissions				
2005 BAU	2,873.58	2.87	0.22	3,011.13
% Reduction From				33.40%
BAU				

Table 3-12: Projected Project Operational GHG Emissions Compared to 2005 BAU; Source: (CalEEMod, V.2020.4.0)

The project's operational GHG are estimated to be 1006.34 CO2e MT lower than the 2005 BAU. This is a reduction of 33.40%, more than the 29% threshold. Therefore, the impact is 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?

**No Impact:** The SJVAPCD states that individual and cumulative GHG emissions are considered less than significant if a project complies with an approved GHG emission reduction plan or GHG mitigation program with within the geographic area in which the project is located. The City of Visalia Climate Action Plan meets the requirements for a Qualified Greenhouse Gas Reduction Strategy. Therefore, the proposed project's GHG emissions would not be considered a significant impact if the proposed Project would be consistent with the City's GHG Reduction Strategy. Table 3–13, below, evaluates the proposed project's consistency with the applicable measures, both existing and proposed, in the GHG reduction plan.

Climate Action Plan Measures	Project Consistency with Strategy
2. Increase in Solar Photovoltaic (PV)	Consistent. The proposed project
Installations:	would involve solar panels on the
	new homes.
7. Urban Forestry: Requirement for all new	Consistent. The proposed project
development to have street trees, require shade	plans to provide trees on all local
over at least 25% of area in city pocket parks.	roads and include improvements
	on existing roads as well as in
	planned pocket park.
10. Bicycle Path Plan:	Consistent. The proposed project
	includes improvements with
	parkways on Ben Maddox Way and
	Caldwell Avenue, as well as bike
	path along the Tulare Irrigation
	Canal.
11. Infill and High-Density Development	Consistent. The proposed Project
	has residential housing consistent
	with the 2030 General Plan.

Table 3-13. Project Consistency with Climate Action Plan Strategies.

As discussed above, the proposed project is consistent with the City of Visalia Climate Action Plan. The proposed project will comply with all Federal, State, and Local rules pertaining to the regulation of greenhouse gas emissions and the project will implement Best Performance Standards developed by the SJVAPCD. The project will not conflict with any plan, policy, or regulation developed to reduce GHG emissions. There is *no impact*.

# 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?			Ø	
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?			Ø	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				Ø
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?				Ø
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 for people residing or working in the project area?			v	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				V
g) Expose people or structures, either directly or indirectly, to significant risk of loss, injury or death involving wildland fires?				Ø

# **Environmental Setting**

The proposed project site is located approximately .90 miles South West of the nearest school (Annie R Mitchell Elementary) and approximately 6 miles southeast of the nearest public airport (Visalia Municipal Airport). The terminal of Airport is approximately 6.75 miles away; however, the runway is 6 miles from the Project Site (Figure 3-5).

The Department of Toxic Substances Control's (DTSC's) Envirostor was used to identify any sites known to be associated with releases of hazardous materials or wastes within the project area. This research confirmed that the project would not be located on or nearby a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

# **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 assure 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, operation, 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 authorizes 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 the identification and classification of hazardous wastes. The CCR defines a waste as hazardous if it has any of 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 the state of 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.

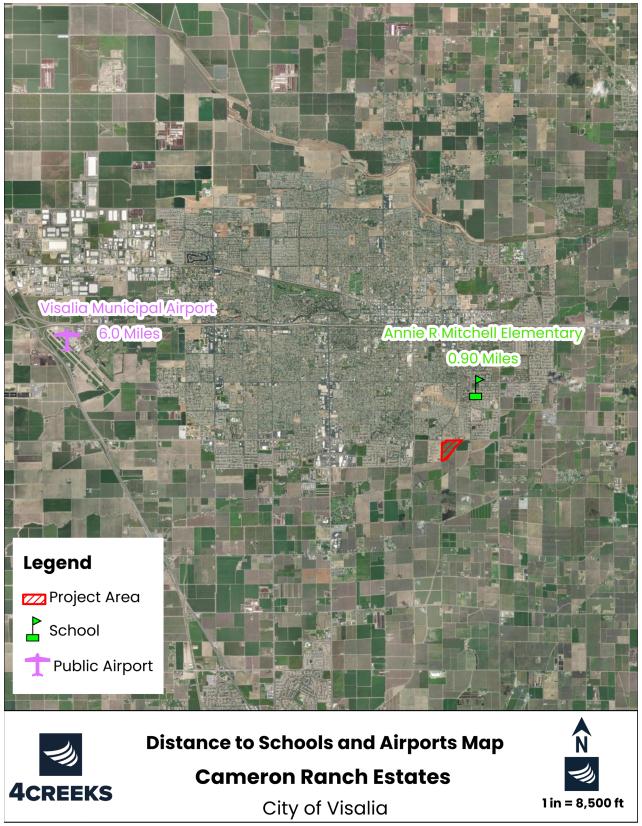


Figure 3-5: Distance to Schools and Airports

## **Discussion**

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

Less than Significant Impact: Project construction activities may involve the use, storage, and transport of hazardous materials. During construction, the contractor will use fuel trucks to refuel onsite equipment and may use paints and solvents to a limited degree. The storage, transport, and use of these materials will comply with Local, State, and Federal regulatory requirements. There is the potential for small leaks due to refueling of construction equipment, however standard construction Best Management Practices (BMPs) included in the SWPPP will reduce the potential for the release of construction related fuels and other hazardous materials by controlling runoff from the site and requiring proper disposal or recycling of hazardous materials. The impact is less than significant.

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: There is no reasonably foreseeable condition or incident involving the project that could result in release of hazardous materials into the environment, other than any potential accidental releases of standard fuels, solvents, or chemicals encountered during typical construction of a residential subdivision. Should an accidental hazardous release occur or should the project encounter hazardous soils, existing regulations for handling hazardous materials require coordination with the California Department of Toxic Substances Control 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. Therefore, potential impacts are 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:** The project is located approximately .90 miles from an existing middle school. The project does not involve the use or storage of hazardous substances other than insignificant amounts of pesticides, fertilizers, and cleaning agents required for normal maintenance of structures and landscaping. The project would not emit hazardous emissions or involve the handling of acutely hazardous materials or waste. Therefore, there would be *no impact*.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

**No Impact:** The project site is not listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. There would be *no impact*.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less Than Significant Impact: The proposed project is located approximately 6 miles Southeast of the nearest public airport (Visalia Municipal Airport). However, according to the Airport Master plan, the project site would not be impacted by the airport. Noise contours developed for 2019 show that the airport would produce less than 65 dB. All land uses located outside of the 65 dB contours are considered less than significant. Implementation of the proposed project would not result in a safety hazard for people residing or working in the project area. There is a less than significant impact.

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

**No Impact:** The City's design and environmental review procedures shall ensure compliance with emergency response and evacuation plans. In addition, the site plan will be reviewed by the Fire Department per standard City procedure to ensure consistency with emergency response and evacuation needs. Therefore, the proposed project would have *no impact* on emergency evacuation.

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 land surrounding the project site is developed with urban uses and farmlands which are not considered to be wildlands. Additionally, the City of Visalia General Plan finds that fire hazards within the Planning Area, including the proposed project site, have low frequency, limited extent, limited magnitude, and low significance. The proposed project would not expose people or structures to significant risk of loss, injury or death involving wildland fires and there is *no impact*.

# X. HYDROLOGY AND WATER QUALITY

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

# **Environmental Setting**

## **Surface Water**

Visalia is in the center of the Kaweah River Delta System, resulting in many rivers and creeks flowing through the city. The St. Johns River is the City's primary surface water feature. Other significant surface water features include Modoc Ditch, Mill Creek Ditch, Mill Creek, Tulare Irrigation District (TID) Canal, Packwood Creek, Cameron Creek, Deep Creek, Evans Creek,

Persian Ditch, and several other local ditches. These receive a significant amount of water during the rainy season and help drain stormwater.

#### Groundwater

Groundwater in Tulare County is present in valley deposits of alluvium that are several thousand feet thick and occurs in both confined and unconfined conditions. The creeks in Visalia are tied to the groundwater system. The creeks lose water in the winter while they feed the groundwater, and gain water in the summer when the groundwater feeds the creeks. The depth to groundwater varies significantly throughout the valley floor area of Tulare County. In the area around Visalia, depth to groundwater varies from about 120 feet below ground surface along the western portion of the city to approximately 100 feet below ground surface to the east, as measured in spring 2010. Groundwater levels measured in the city have declined since the 1940s, from approximately 30 feet below ground surface in 1940 to 120 feet below ground surface in 2010. Water quality of the groundwater that underlies the Planning Area is excellent for domestic and agricultural uses. This is most likely due to the abundant snowmelt that originates in the Sierra Nevada. Groundwater is the primary source of drinking water for the planning area residents.

## **Stormwater Drainage**

The City, in conjunction with Kaweah Delta Water Conservation District and Tulare Irrigation District, operates and maintains a vast municipal storm drainage system that consists of drainage channels, 23 detention and retention basins, 33 pump stations and 250 miles of pipe. Stormwater from the project site will be collected and conveyed to a temporary on-site stormwater basin.

## **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 against 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 site is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB). The Central Valley RWQCB requires a National Pollution Discharge Elimination System (NPDES) Permit and Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a NPDES Permit and SWPPP will be required.

## City of Visalia General Plan

The 2030 General Plan includes the policies related to hydrology and water quality that correlate to the proposed project:

- PSCU-P-59: Require new developments to incorporate floodwater detention basins into project designs where consistent with the Stormwater Master Plan and the Groundwater Recharge Plan.
- PSCU-P-60: Control urban and stormwater runoff and point and non-point discharge of pollutants. As part of the City's Stormwater Management Program, adopt and implement a Stormwater Management Ordinance to minimize stormwater runoff rates and volumes, control water pollution, and maximize groundwater recharge. New development will be required to include Low Impact Development features that reduce impermeable surface areas and increase infiltration. Such features may include, but are not limited to:
  - Canopy trees or shrubs to absorb rainwater;
  - Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate;
  - Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
  - Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces;
  - On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and
  - Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.
- PSCU-P-46: Adopt and implement a Water Efficient Landscaping Ordinance for new and/or refurbished development that exceeds mandated sizes, and ensure that all new City parks, streetscapes, and landscaped areas conform to the Ordinance's requirements.
   The Ordinance should include provisions to optimize outdoor water use by:
  - Promoting appropriate use of plants and landscaping;

- Establishing limitations on use of turf including size of turf areas and use of coolseason turf such as Fescue grasses, with exceptions for specified uses (e.g., recreation playing fields, golf courses, and parks);
- o Establishing water budgets and penalties for exceeding them;
- Requiring automatic irrigation systems and schedules, including controllers that incorporate weather-based or other self-adjusting technology;
- o Promoting the use of recycled water; and
- Minimizing overspray and runoff.

## **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 with Mitigation: The project will result in less than significant impacts to water quality due to potentially polluted runoff generated during construction activities. Construction may include excavation, grading, and other earthwork across most of the 43.6-acre project site. During storm events, exposed construction areas across the project site may cause runoff to carry pollutants, such a chemicals, oils, sediment, and debris. Implementation of a Stormwater Pollution Prevention Plan (SWPPP) will be required for the project. A SWPPP identifies all potential sources of pollution that could affect stormwater discharges from the project site and identifies best management practices (BMPs) related to stormwater runoff. As such, implementation of Mitigation Measures HYD-1 and HYD-2 will ensure impacts remain less than significant with mitigation.

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 will be provided by the Cal Water, Visalia District, upon development. The District currently produces about 27 million gallons of local groundwater per day from 75 active wells and delivers it to customers through more than 519 miles of pipeline. The District delivers water to residential, commercial, industrial, and governmental customers. Residential customers account for most of the District's service connections and 69 percent of its water uses. Non-residential water uses account for 28 percent of total demand, while distribution system losses account for 3 percent. The system produced 30,152 acre-feet (AF) of groundwater in 2020. The available water supply is expected to supply the projected population. The system has a capacity to pump 100,829 acre-feet per year (afy), all from groundwater. The projected demand is expected to 35,276 AF in 2030, 38,310 AF in 2035, and 41,258 AF in 2040.

Using the average per-person water use in Visalia (183 gallons per capita per day - GPCD; sourced from the 2020 Urban Water Management Plan) and the average household size in

Visalia (2.99 persons; according to the US Census Bureau), the estimated water demand for the proposed 178-unit residential development amounts to approximately 97,397 gallons of water daily, equivalent to about 109-acre feet per year. With an anticipated increase of 5,124 acre-feet from 2020 to 2030, the water supply is projected to be sufficient for the proposed project. This expected increase reflects anticipated enhancements or expansions in water infrastructure or management practices within the region over the specified time frame, ensuring an ample supply of water to meet the demands of the proposed development and potentially other needs in the area. The most water-intensive aspect of the Project (Very Low-Density Residential homes) is consistent with the City's General Plan land use designation. As such, the Project would not affect groundwater supplies beyond what has already been analyzed in the most current General Plan EIR or Urban Water Management Plan.

The project would result in nearly full development of the site, which would convert approximately 43.6 acres from pervious surfaces to impervious surfaces. However, this would not significantly interfere with groundwater recharge because all stormwaters would be collected and diverted to a new temporary stormwater basin located on the Southern area of the project site for groundwater recharge. Because the addition of impervious surfaces would not interfere substantially with groundwater recharge and the project would not utilize groundwater resources beyond what has been previously analyzed in the Visalia Planning Area General Plan EIR or the Urban Water Management Plan, the impact 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 with Mitigation: The proposed project would result in the addition of impervious surfaces and alter existing drainage patterns on the 43.6-acre project site which would have the potential to result in erosion or siltation on- or off-site. The disturbance of soils during construction could cause erosion, resulting in temporary construction impacts. However, this impact would be appropriately mitigated through implementation of a Stormwater Pollution Prevention Plan (SWPPP) which include mandated erosion control measures, which are developed to prevent significant impacts related to erosion caused by runoff during construction (Mitigation Measure HYD-1). The Project proponent will also be required to prepare drainage plans (Mitigation Measure HYD-2) and a Development Maintenance Manual (Mitigation Measure HYD-3) to ensure that existing drainage patterns are maintained during project operations and that the project would not result in substantial erosion or siltation on- or off-site. The impact is less than significant with implementation of these mitigation measures.

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

Less than Significant with Mitigation: The proposed project would result in the addition of impervious surfaces on the 43.6-acre project site which would have the potential to increase surface runoff resulting in flooding on- or off-site. This impact would be appropriately mitigated through implementation of Mitigation Measure HYD-2, which requires the project to submit drainage plans to the City Engineer prior to the issuance of grading permits. The drainage plans will include BMPs to ensure runoff from the project will not result in flooding on- or off-site. Therefore, impacts are less than significant with mitigation.

# 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 with Mitigation: The proposed project would result in the addition of impervious surfaces and alter existing drainage patterns on the 43.6-acre project site which would have the potential to impact existing stormwater drainage systems or provide additional sources of polluted runoff. The proposed project would contain a storm drainage basin to collect all runoff from the site. The disturbance of soils during construction could cause erosion, resulting in temporary construction impacts. However, this impact would be appropriately mitigated through implementation of a Stormwater Pollution Prevention Plan (SWPPP) which include mandated erosion control measures, which are developed to prevent significant impacts related to erosion caused by runoff during construction (Mitigation Measure HYD-1). During project operations, the proposed impervious surfaces, including roads, building pads, and parking areas, would collect automobile derived pollutants such as oils, greases, rubber, and heavy metals. This could contribute to point source and non-point source pollution if these pollutants were transported into waterways during storm events. The Project proponent will be required to prepare drainage plans (Mitigation Measure HYD-2) and a Development Maintenance Manual (Mitigation Measure HYD-3) to ensure that the project would not overwhelm the planned stormwater drainage basin or result in discharges of polluted runoff into local waterways. The impact is less than significant with implementation of these mitigation measures.

### iv. Impede or redirect flood flows?

Less than Significant with Mitigation: The Project site is generally flat and no significant grading or leveling will be required. The proposed project site is not in proximity to a stream or river and will not alter the course of a stream or river. According to National Flood Hazard mapping by the Federal Emergency Management Agency, the proposed project is in an X flood zone, which has a 0.2% chance of flooding every year.

The proposed project would result in the addition of impervious surfaces on the 43.6-acre project site which could affect drainage and flood patterns. This impact would be

appropriately mitigated through implementation of Mitigation Measure HYD-2, which requires the project to submit drainage plans to the City Engineer prior to the issuance of grading permits. The drainage plans will include BMPs to ensure the project would not impede or redirect flood flows. Therefore, impacts are *less than significant with mitigation*.

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

**No Impact:** The proposed project is located inland and not near an ocean or large body of water, therefore, would not be affected by a tsunami. The proposed project is in a relatively flat area and would not be impacted by inundation related to mudflow. Since the project is in an area that is not susceptible to inundation, the project would not risk release of pollutants due to project inundation. As such, there is *no impact*.

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

**No Impact:** The project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. The proposed project is consistent with the Central Valley RWQCB. The project will comply with all applicable rules and regulations regarding water quality and groundwater management and there is *no impact*.

# Mitigation Measures for 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 SWRCB Storm Water Permit Unit.

- Prior to issuance of grading permits for Phase 1 the Applicant shall submit a copy of the NOI to the City.
- The City shall review noticing documentation prior to approval of the grading permit. City monitoring staff will inspect the 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

storm water and shall include specific BMPs to control the discharge of material from the site. The following BMP methods shall include, but would not be limited to:

- Dust control measures will be implemented to ensure success of all onsite activities to control fugitive dust;
- A routine monitoring plan will be implemented to ensure success of all onsite erosion and sedimentation control measures;
- Provisional detention basins, straw bales, erosion control blankets, mulching, silt fencing, sand bagging, and soil stabilizers will be used;
- Soil stockpiles and graded slopes will be covered after two weeks of inactivity and 24 hours prior to and during extreme weather conditions; and,
- BMPs will be strictly followed to prevent spills and discharges of pollutants onsite, 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?				Ø
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?				Ø

## **Environmental Setting**

The proposed project site is in the Visalia Planning Area, just outside of the city limits. The site is approximately 2.5 miles Southeast of the Visalia downtown. The site is currently zoned as AE-20 by the County of Tulare but is prezoned for R-1-5 by the City of Visalia after annexation. The site is designated as Low Density Residential by the Visalia General Plan. The Project does not need rezoning or General Plan Amendments.

The site currently contains agriculture uses. The site is topographically flat and is bounded by agricultural uses to the South and East, and single-family residential to the North and West.

## **Regulatory Setting**

## Visalia General Plan

The proposed project site is designated as Low Density Residential.

 The Low-Density Residential designation provides single family detached housing on residential lots. The typical residential density of this designation ranges from 2-10 units per acres. Buildout is assumed at two units per gross acre.

The 2030 General Plan includes the policies related to land use that correlate to the proposed project:

- LU-P-19: Ensure that growth occurs in a compact and concentric fashion by implementing the General Plan's phased growth strategy.
- LU-P-20: Allow annexation and development of residential, commercial, and industrial land to occur within the Tier I Urban Development Boundary (UDB) at any time, consistent with the City's Land Use Diagram.
- LU-P-21: Allow annexation and development of residential, commercial, and industrial land to occur within the Tier II UDB and the Tier III Urban Growth Boundary consistent with the City's Land Use Diagram, according to the following phasing thresholds:

- Tier II: The expansion criteria for land in Tier II to become available for annexation and development is that such annexation and development shall only occur if it does Visalia General Plan Draft Environmental Impact Report 3.1-16 not result in excess of a 10-year supply of undeveloped residential land within the new Tier I. This is intended to be consistent with LAFCO policies discouraging residential annexations exceeding a 10-year housing inventory. Thus, the "inner" tier is distinguished from the GPURC-recommended Tier I in that it is not based on projected capacity and need, but rather on a requirement to be able to demonstrate that less than a ten year inventory of residential land exists.
- Tier III: Tier III comprises full buildout of the General Plan. The expansion criteria for land in Tier III is that land would only become available for development when building permits have been issued in Tier I and Tier II at the following levels:
  - Residential: after permits for 12,800 housing units have been issued, resulting in a target City population in Tier I of 178,000;
  - Commercial: after permits for 960,000 square feet of commercial space have been issued; and
  - Industrial: after permits for 2,800,000 square feet of industrial space have been issued

To complement residential neighborhood development, the City also may allow small annexations for sites less than 30 acres in size that are contiguous to the City limits to allow for efficient development of a neighborhood, commercial area or employment center, provided no General Plan amendment is required and infrastructure is available or can be extended at no cost to the City.

- LU-P-28: Continue to use natural and man-made edges, such as major roadways and waterways within the city's Urban Area Boundary, as urban development limit and growth phasing lines.
- LU-P-71: Ensure that noise, traffic, and other potential conflicts that may arise in a mix of commercial and residential uses are mitigated through good site planning, building design, and/or appropriate operational measures.
- LU-P-47: Establish criteria and standards for pedestrian, bicycle, and vehicle circulation networks within new subdivisions and non-residential development.

# City of Visalia Zoning Ordinance

R-1 zoning is intended to provide living area within the city where development is limited to low density concentrations of one-family dwellings and regulations are designed for the following:

- to promote and encourage a suitable environment for family life;
- to provide space for community facilities needed to compliment urban residential areas and for institutions that require a residential environment;
- to minimize traffic congestion and to avoid an overload of utilities designed to service only low-density residential use.

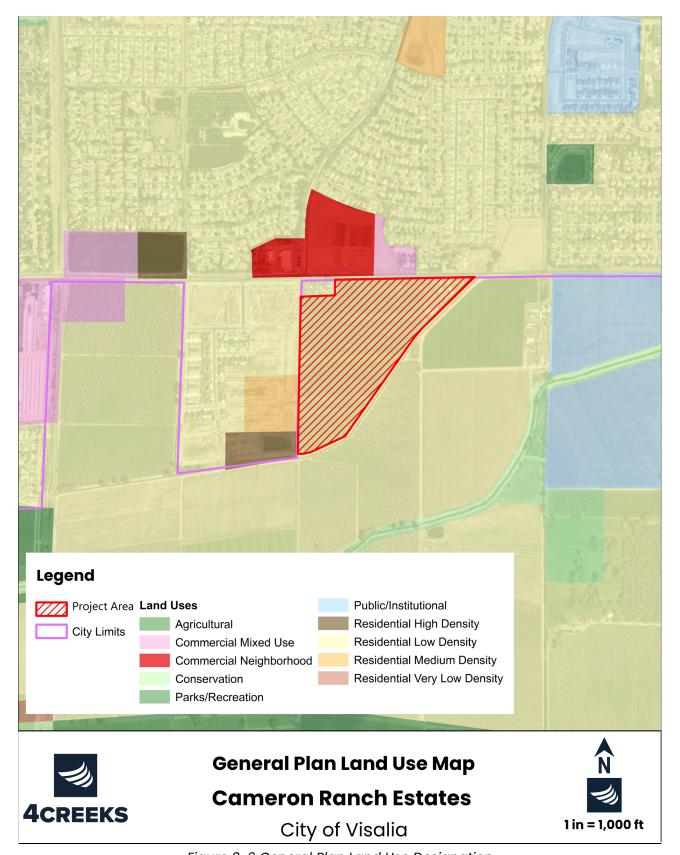


Figure 3-6 General Plan Land Use Designation

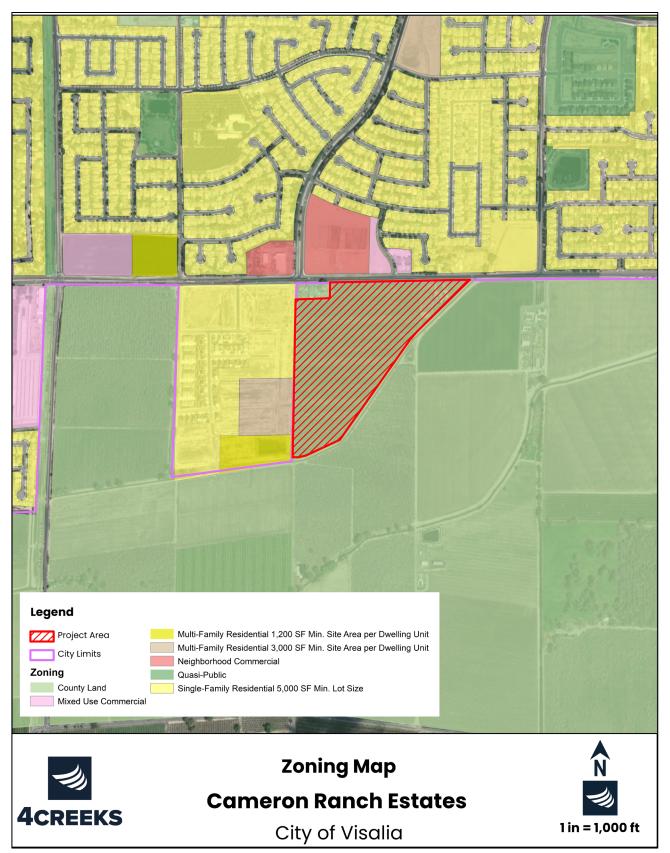


Figure 3-7: Zoning Map

### **Discussion**

a) Would the project physically divide an established community?

**No Impact:** Due to its location at the city's edge, where new residential development is already occurring adjacent to the project site, the proposed project will not physically divide an established community. The site's placement allows it to fit the mold of the surrounding area, reinforcing the continuity of the local community fabric without creating divisions. The proposed project site is designated for Very Low Density Residential by the Visalia General Plan and the project is consistent with this land use designation. The project would continue to operate as the same designation following project implementation. There is *no impact*.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

**No Impact:** The project site is located on land designated for residential use (Figure 3-6). The proposed project does not conflict with this land use, or any other policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There is *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?				Ø
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?				Ø

# **Environmental Setting**

Tulare County contains mineral resources of sand, gravel, and crushed stone, found in alluvial deposits and hard rock quarries. Most of this mining takes place along rivers and at the base of the Sierra foothills. However, the Visalia Planning Area currently contains three former sand and gravel mines, but no currently operating mines and no designated Mineral Resource Zones.

# **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 to prevent adverse environmental impacts and to preserve the state's mineral resources. The Act is enforced by the California Department of Conservation's Division of Mine Reclamation.

## **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 a value to the region and the residents of the state, therefore the proposed project would not result in the loss of impede the mining of regionally or locally important mineral resources. There is *no impact*.

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

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

### XIII. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permeant 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?			Ø	
b) Generation of excessive ground-borne vibration or groundborne noise levels?			Ø	
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?				Ø

# **Environmental Setting**

Noise is often described as unwanted sound. 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, and 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 seismic waves that radiate along the surface of the earth and downward into the earth. Operation of heavy construction equipment, particularly pile driving and other impacts devices such as pavement breakers create this vibration.

## **Sensitive Receptors**

Noise level allowances for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hotels/motels, hospitals, schools, and libraries are some of the most sensitive land uses to noise intrusion and therefore have more stringent noise level allowances than most commercial or agricultural uses that are not subject to impacts such as sleep disturbance. The nearest sensitive receptor is the Wildhorse Subdivision that borders the Southeast border of the site.

## **Regulatory Setting**

## City of Visalia Noise Ordinance

The City of Visalia Noise Ordinance provides noise level standards for land use compatibility. Exterior and interior noise levels may not exceed any of the categorical noise level standards shown in Table 3-14. The standards are shown in A-weighted decibels (dBA). For Single Family Residential, the exterior noise during the daytime is to be below 70 dBA, and the indoor noise during the daytime is to be below 55 dBA.

Category	Cumulative number of minutes in any one hour time period	Evening and daytime (6:00 a.m. to 7:00 p.m.)	Nighttime (7:00 p.m. to 6:00 a.m.)
Exterior	Levels		
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65
Interior L	.evels		
1	5	45	35
2	1	50	40
3	0	55	45

Table 3-14: City of Visalia Noise Standards. Source: City of Visalia Noise Ordinance

## City of Visalia General Plan

The current noise element of the City's General Plan establishes goals and policies intended to limit community exposure to excessive noise levels. Visalia's current General Plan identifies noise sources such as roadways, rails, and airports within the city and includes land use compatibility guidelines.

- N-P-3: Establish performance standards for noise reduction for new housing that may be
  exposed to community noise levels above 65 dB DNL/CNEL, as shown on the Noise Contour
  Maps, based on the target acceptable noise levels for outdoor activity levels and interior
  spaces in Tables 8-2 and 8-3. Noise mitigation measures that may be considered to
  achieve these noise level targets include but are not limited to the following:
  - o Construct façades with substantial weight and insulation;
  - o Use sound-rated windows for primary sleeping and activity areas;
  - Use sound-rated doors for all exterior entries at primary sleeping and activity areas;
  - Use minimum setbacks and exterior barriers;
  - Use acoustic baffling of vents for chimneys, attics, and gable ends;
  - Install a mechanical ventilation system that provides fresh air under closed window conditions.

## **Discussion**

a) Would the project result in generation of a substantial temporary or permeant 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 48 months and will involve temporary noise sources in the vicinity of the project. The average noise levels generated by construction equipment that will likely be used in the proposed project are provided in Table 3-15.

The nearest residence and sensitive receptor are the single-family homes West and North of the site. The City requires that mitigation measures be implemented if noise levels exceed 70 dB in sensitive outdoor areas or if interior noise levels exceed 55 dB. As shown in Figure 3-10, it was found that a residence must be at least 250 feet from construction in the exterior and 100 feet from construction in the interior to avoid noise levels exceeding these thresholds.

With the project bordering another residential community, a noise disturbance is unavoidable. However, the construction would comply with Visalia Municipal Code Chapter 8.36 to ensure that the construction noise impacts would be less than significant. Measures such as maintaining minimum setback distances between construction equipment and receptors, only having construction during weekday daytime hours, and noise barriers would be implemented to avoid significant construction noise impacts.

Long term noise levels resulting from the project would be produced by single family residential homes, which are not normally associated with high operational noise levels. Because noise generated during project construction would be intermittent, short term, and would not exceed the thresholds established by the Visalia Noise Ordinance for sensitive receptors and the project does not propose uses that would typically generate high noise levels, the impact is *less than significant*.

Type of Equipment	Exterior Lmax at 50 feet (dBA)
Tractors	84
Loaders	80
Backhoes	80
Excavators	85
Generator Sets	82
Air Compressors	80
Rubber Tired Dozers	85
Forklifts	75
Welders	73
Graders	85
Scrapers	85
Cranes	85
Paving Equipment	85
Rollers	85

Table 3-15. Noise levels of noise-generating construction equipment at various distances. Source: FHA Construction Noise Handbook (dBA at 50 feet). Noise levels beyond 50 feet were estimated using the inverse square law based on given values for dBA at 50 feet



Figure 3-8a: Construction Related Noise Levels Based on Distance from Construction Equipment. Exterior Noise.

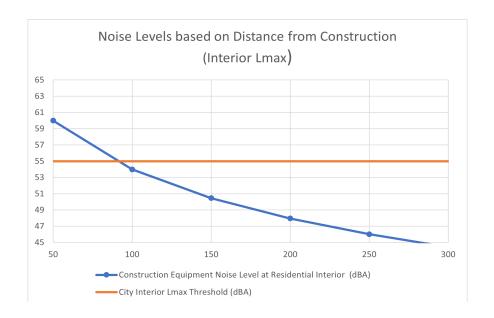


Figure 3-8b: Construction Related Noise Levels Based on Distance from Construction Equipment.

Interior Noise=Assume 25 dB.

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

Less than Significant Impact: Although project operations would not include uses or activities that typically generate excessive groundborne vibration or groundborne noise levels, project construction could introduce temporary groundborne vibration to the project site and the surrounding area. Sources that may produce perceptible vibrations are provided in Table 3-16.

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
The driver (impact)	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
File driver (soriic)	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
   Hydromill (slurry wall)	0.008 in soil	66
Hydroffilli (slaffy wall)	0.017 in rock	75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87

Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Table 3-16. Vibration Levels Generated by Construction Equipment. Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, September 2018.

The primary source of vibration during project construction would likely be from a bulldozer (tractor), which would generate 0.089 inch per second PPV at 25 feet with an approximate vibration level of 87 VdB. Vibration from the bulldozer would be intermittent and not a source of continual vibration. There are no adopted City standards or thresholds of significance for vibration. The evaluation of potential impacts related to construction vibration levels is based on the published data in the 2018 FTA Guidelines. At 25 feet, the buildings most susceptible to vibration could be impacted at .12 inch/second. Because vibrations generated by project construction would not exceed 0.12 inch/second, the impact is 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?

**No Impact:** The proposed project is located approximately 6.0 miles Southeast of the nearest public airport (Visalia Municipal Airport). However, according to the Airport Master plan, the project site would not be impacted by the airport. Noise contours developed for 2019 show that the airport would produce less than 65 dB. All land uses located outside of the 65 dB contours are considered to have no impact. Implementation of the proposed project would not result in a safety hazard for people residing or working in the project area. There is *no impact*.

### 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)?				V
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				V

# **Environmental Setting**

The United States Census Bureau stated the population in the City of Visalia to be 143,966 as of July 2022. This is an increase from the 2010 census, which counted the population in the City of Visalia to be 124,442. Factors that influence population growth in Visalia include job availability, housing availability, and the capacity of proposed and existing infrastructure.

## **Regulatory Setting**

The City of Visalia population size is controlled by the development code and Housing 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, which has a direct impact on the City's population size.

## City of Visalia 2003 General Plan Housing Element

The 2030 General Plan includes the policies related to population and housing that correlate to the proposed project:

- LU-P-50: Provide development standards to ensure residential development is not negatively affected by adjacent non-residential land uses.
- *U-P-71*: Ensure that noise, traffic, and other potential conflicts that may arise in a mix of commercial and residential uses are mitigated through good site planning, building design, and/or appropriate operational measures.
- *HE Policy 1.7*: The City shall promote development standards that ensure that new residential developments are long-term assets to the City, make effective use of land, and are compatible with adjacent land uses.

## **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)?

**No Impact:** The United States Census Bureau stated the population in the City of Visalia to be 143,966 as of July 2022. The project proposes to construct 178 new single family residential units. The US Census Bureau states that the City's average household size is 3.05 persons. Based on this average household size, the anticipated population increase because of the proposed project is 543 persons. The construction of housing at this location would not be unplanned, as the Visalia General Plan designated the proposed project site for low density residential. Additionally, the city is planning for more businesses, services, and infrastructure to accommodate the new population. Overall, the project will not constitute an unplanned increase in growth and population. There is *no impact*.

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

**No Impact:** There project would not displace any existing housing. There are no existing homes to be removed on the project site. Overall, this will increase the amount of available housing in the community. There is *No Impact*.

#### 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:				
a. Fire protection?			V	
b. Police protection?			V	
c. Schools?			V	
d. Parks?			Ø	
e. Other public facilities?			V	

## **Environmental Setting**

#### Fire

Visalia and project site is served by The Visalia Fire Department (VFD), which operates 5 fire stations within the City of Visalia. The VFD will continue to provide fire protection services to the proposed project site following project implementation. VFD Fire Station #56 is the nearest fire station to the site, approximately 1.35 miles to the Northeast.

## **Police**

Law enforcement services are provided to the project site via The Visalia Police Department (VPD). The VPD will continue to provide police protection services to the proposed project site following project implementation. The VPD headquarters are located approximately 2.45 miles Northwest of the proposed project site. VPD Substation District 2 is located approximately 2.5 miles Southwest of the project site.

### **Schools**

The proposed project site is located within the Visalia Unified School District (VUSD) from Kindergarten through 12th Grade. The District includes 25 elementary schools, four middle schools, four traditional high schools, and alternative education programs. The nearest school is located approximately 1 mile West (Annie R Mitchell Elementary School).

## **Regulatory Setting**

#### California Fire Code

The California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

## City of Visalia Fire Department Plan Check and Hydrant Ordinance

Visalia's requirements for new construction include provisions for the Fire Department to review building and site plans prior to the issuance of any permit. The Fire Department ensures that proposed projects will be adequately served by water, and accessible to emergency vehicles. The Department also enforces the City's Hydrant Ordinance, which states that subdividers are responsible for the installation of water mains and hydrants and determines the minimum spacing for fire hydrants. Street dimensions are scrutinized to ensure that space will be preserved for ladder trucks to be stabilized, and for emergency vehicles to turn around. Basic requirements in the City's subdivision ordinance include 52-foot minimum right-of-way widths and a 53-foot turning radius for cul-de-sacs.

## City of Visalia General Plan

The 2030 General Plan includes the policies related to public services that correlate to the proposed project:

• *PSCU-P-33*: Coordinate land use and development with school location and site design, working with the Visalia Unified School District and other districts to ensure that adequate facilities are available and integrated with neighborhoods.

## **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:

### a. Fire protection?

Less than Significant Impact: The VFD will provide fire protection services to the proposed development. The closest fire station is Station #56, located 1.35 miles Northeast of the project site at 1968 S Lovers Ln. The Fire Department uses the National Fire Protection Association (NFPA) standard for fire protection services, which requires 1 responder per

1,000 residents. The addition of 178 residential units will increase the demand for fire protection services. The city currently has .48 responders per 1,000 residents. By 2030, the city expects growth up to a total of 210,000 residents. This would result in .32 responders per 1,000 residents. This will require an additional 85 on-duty responders by 2030 to meet 1 responder per 1,000 residents, or 41 new responders to meet the current ratio. The existing fire stations are placed to provide optimum service, however new stations will be needed to support the expanding city.

The timing of when new fire service facilities would be required or details about 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 fire service facilities become necessary, construction or expansion projects would be subject to their own separate CEQA review in order to identify and mitigate any potential environmental impacts. Therefore, the impact is *less than significant*.

## b. Police protection?

Less than Significant Impact: The VPD will provide services to the proposed development. The VPD headquarters are located approximately 3.6 miles Northeast of the proposed project site. VPD Substation District 2 is located approximately 2.3 miles Southeast of the project site. The development would increase the demand for police service with the addition of 136 residential units. The VPD does not establish service standards either in terms of officers per thousand residents or in incident response time but plans to maintain the current ratio of 1.7 officers per 1,000 residents. The Department has 143 sworn officers working out of two districts, as well as seven reserve sworn officers, 64 civilian officers, and 65 volunteers. The timing of when new police service facilities would be required or details about 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 in order to identify and mitigate any potential environmental impacts. Therefore, the impact is less than significant.

### c. Schools?

Less than Significant Impact: The proposed project is within the (VUSD) from Kindergarten through 12th Grade. The District includes 25 elementary schools, four middle schools, four traditional high schools, and alternative education programs. The City of Visalia predicts the generation rates shown below in Table 3-17. The Total Expected Increase in Students is determined by multiplying the Single-Family Generation Rates for each school type in the City of Visalia by the number of planned single-family homes.

Total Namber of Offics. 170		in Students: 125 Students
Total Number of Units: 178		Total Expected Increase
High School	.156	28
Middle School	.092	17
Elementary School	0.448	80
, ,	Rate	
School Type	Single Family Generation	Number of Students

Table 3-17: Student Generation Rates, City of Visalia General Plan

Since the proposed project includes the addition of 178 single family homes, the number of students will increase by approximately 125. The proposed project site is located within the Planning Area's limits and therefore, growth associated with the Project has been planned and expected. In addition to the goals and policies of the City's General Plan, future development is required 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 and develop new facilities, as needed. Therefore, the impact is *less than significant*.

#### d. Parks?

Less than Significant Impact: The addition of 178 new residential units would result in more use of the existing parks. Parks within a half-mile to one-mile radius that would service the proposed development include Burke Park, Cherry Meadow Park and Blaine Park. The project plans to include .75 acres of parkland Since the project would not lower the existing level of services for parks, and the proposed project would contribute its fair share to parks facilities through in-lieu fees, the impact is less than significant.

## e. Other public facilities?

Less than Significant Impact: The proposed project would be required to pay a development impact fee for Public Facilities, including for the Civic Center, Corporation Yard, and Libraries. Additional development fees will be paid to offset the increased demand for public services related to transportation, water, wastewater, groundwater recharge, storm drainage, and general governmental services. Fees for transportation, water, wastewater, and general government are based on building square footage and will be calculated prior to the issuance of building permits. Fees for groundwater recharge and storm drainage are based on site acreage.

While the payment of development fees could result in the construction of new or altered public service facilities, no specific projects have been identified at this time. As new or

expanded public service facilities become necessary, construction or expansion projects would be subject to their own separate CEQA review in order to identify and mitigate any potential environmental impacts. Therefore, the impact is *less than significant*.

#### XVI. PARKS AND 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?			Ø	
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?				Ø

## **Environmental Setting**

There are 40 park facilities totaling 678 acres within the Visalia Planning Area. The City of Visalia provides diverse types of parks and open space facilities, or park types, to meet park and open space recreation needs of the community. Park types include:

- Pocket Parks: A park typically between one-half and two acres in size intended to serve the needs of a specific neighborhood within a half-mile radius. There are currently 17 pocket parks in Visalia.
- Neighborhood Parks: A park typically 2 to 5 acres in size that provides basic recreation activities for one or more neighborhoods. There are currently 19 neighborhood parks in Visalia.
- Community Parks: A park typically ranging from 5 to 12 acres in size or larger, which are
  intended to serve the recreational needs of a larger area of the city. There are currently 4
  community parks in Visalia.
- Large City Parks: A park generally larger than 40 acres in size intended to serve the
  recreational needs of all city residents and to create opportunities for contact with the
  natural environment. These parks may include a concentration of sports fields, golf
  courses, and areas for picnicking and passive enjoyment of open space. There are
  currently 2 large city parks in Visalia.
- Natural Corridors and Greenways: A network of greenways of varying size intended to serve
  the recreational needs of city residents. These parks may include facilities such as
  bikeways, walkways, and riding trails, and are primarily developed along the city's
  waterways. There is a total of 196 acres of natural corridors and greenways.

The Visalia Planning Area additionally contains two county parks and a public golf course. The golf course is not counted to the total amount of parkland. The Visalia General Plan states a total parkland standard of five acres of city parkland per 1,000 residents.

# **Regulatory Setting**

## **Quimby Act**

The 1975 Quimby Act (California Government Code section 66477) authorized cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The Act states that the dedication requirement of parkland can be a minimum of three acres per thousand residents or more and up to five acres per thousand residents if the existing ratio is greater than the minimum standard. Revenues generated through in-lieu fees collected and the Quimby Act cannot be used for the operation and maintenance of park facilities. In 1982, the Act was substantially amended. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied (nexus) to a project's impacts as identified through studies required by the California Environmental Quality Act (CEQA).

# City of Visalia General Plan

The 2030 General Plan includes the policies related to parks and recreation that correlate to the proposed project:

- PSCU-P-2: Strive to achieve and maintain a citywide standard of at least five acres of neighborhood and community parks per 1,000 residents.
- PSCU-P-7: Promote development of small pocket parks or play lots dispersed throughout new neighborhoods and in existing neighborhoods, where needed, on a voluntary basis in coordination with new infill development, consistent with the following planning guidelines:
  - Size: 0.5 to 2 acres; and
  - Facilities: the specific features of pocket parks should address the anticipated needs of nearby residents and/or workers. In a residential environment, the needs of small children and seniors should be emphasized. In mixed-use or commercial areas, lunchtime use by office workers and shoppers should be facilitated.
- PSCU-P-10: Adopt and implement parkland dedication requirements for all subdivisions, consistent with the Quimby Act and Policy PSCU-P-2. This requirement will be integrated with the City's Park Acquisition Development Fee Program.

## **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 proposed project is anticipated to increase the Visalia population by approximately 543 residents. Based on the desired parkland ratio of five acres

per 1000 residents identified in the Visalia General Plan, the Project would need to provide approximately 2.66 acres of parkland/open space. The Project proposes a 0.75-acre pocket park in the southwest portion of the proposed residential community. Recognizing that this pocket park alone may fall short of meeting the minimum park space requirements for accommodating the influx of new residents, the project will contribute its equitable share to enhance local parks and recreational amenities through in-lieu fees. The impact is *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?

**No Impact:** The proposed project does not include any recreational facilities or require the construction or expansion of any recreational facilities that would have an adverse physical effect on the environment. There is *no impact*.

## 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?			Ø	
b) Conflict or be inconsistent with the CEQA guidelines Section 15064.3, Subdivision (b)?			V	
d) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				Ø
e) Result in inadequate emergency access?				Ø

## **Environmental Setting**

## **Vehicular Access**

Vehicular access to the project is available via Ben Maddox Way on the West side of the site, and Caldwell Ave on the North side of the site. The project includes a network of local streets that provide full access to the project site.

## **Parking**

Each Single-Family home will contain at least a two-car garage, as well as room for two more cars in the driveway. Street parking will be limited due to reduced street widths. During construction, workers will utilize existing parking areas and/or temporary construction staging areas for parking of vehicles and equipment.

# **Regulatory Setting**

# 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.

## **City of Visalia Standard Specifications**

The City of Visalia Standard Specifications are developed and enforced by the City of Visalia Public Works Department to guide the development and maintenance of streets within the City. The cross-section drawings contained in the City's Standard Specifications dictate the development of roads within the City.

## City of Visalia General Plan:

The 2030 General Plan includes the policies related to transportation that correlate to the proposed project:

- *T-P-3*: Design and build future roadways that complement and enhance the existing network, as shown on the General Plan Circulation Diagram, to ensure that each new and existing roadway continues to function as intended.
- T-P-5: Take advantage of opportunities to consolidate driveways, access points, and curb
  cuts along existing arterials when a change in development or a change in intensity occurs
  or when traffic operation or safety warrants.
- T-P-10: Manage local residential streets to limit average daily vehicle volumes to 1,500 or less and maintain average vehicle speeds between 15 and 25 miles per hour.
- *T-P-22*: Require all residential subdivisions to be designed to discourage use of local streets as a bypass to congested arterials, and when feasible, require access to residential development to be from collector streets.

- *T-P-23*: Require that all new developments provide right-of-way, which may be dedicated or purchased, and improvements (including necessary grading, installation of curbs, gutters, sidewalks, parkway/landscape strips, bike, and parking lanes) other city street design standards. Design standards will be updated following General Plan adoption.
- *T-P-24*: Require that proposed developments make necessary off-site improvements if the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet LOS D during peak periods or if it creates safety hazards.
- *T-P-26*: Require that future commercial developments or modifications to existing developments be designed with limited points of automobile ingress and egress, including shared access, onto major streets.
- *T-P-40*: Develop a community-wide trail system along selected planning area waterways, consistent with the Waterways and Trails Master Plan and General Plan diagrams.

## **Discussion**

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

**No Impact:** The Project intends to construct up to 178 single-family residences. Project components include interior access roads, street lighting and landscaping. Vehicle access to the Project site would be from Ben Maddox way and Caldwell Avenue. The city expects the roadways in the area of the Project to maintain acceptable LOS thresholds as the project area has already been pre zoned for R-1-5. Street improvements on Ben Maddox Way and Caldwell Avenue would comply with City standards. There is *no impact*.

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

Less than Significant Impact: The City of Visalia's VMT Thresholds and Implementation Guidelines (Guidelines) document, prepared by LSA and adopted on March 15, 2021, provides guidance for determining a project's transportation impacts based on vehicle miles traveled (VMT). The Guidelines acknowledge that certain activities and projects may result in a reduction in VMT and GHG emissions and, therefore, a less than significant impact to transportation and circulation. A variety of projects may be screened out of a complicated VMT analysis due to the presumption described in the TA regarding the occurrence of less than significant impacts.

The Guidelines state: "Residential, office, or mixed-use projects that are consistent with the City's General Plan and located within green-colored VMT zones, as shown in Figures 6, 7, and 8, respectively, are presumed to have similar low VMT profiles and could be screened out from further VMT analysis."

The State of California Governor's Office of Planning and Research document entitled Technical Advisory on Evaluating Transportation Impacts in CEQA dated December 2018 (OPR Guidelines) provides the reasoning for the screen out. The OPR Guidelines state: "Residential and office projects that are located in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Maps created with VMT data, for example from a travel survey or a travel demand model, can illustrate areas that are currently below threshold VMT. Because new development in such locations would likely result in a similar level of VMT, such maps may be used to screen out residential and office projects from needing to prepare a detailed VMT analysis."

The Project is consistent with Visalia's General Plan land use, and the Project is within a green-colored VMT zone, shown in Figure 3-11. Therefore, the Project can be screened out will not require a VMT analysis. There is a *less than significant impact*.

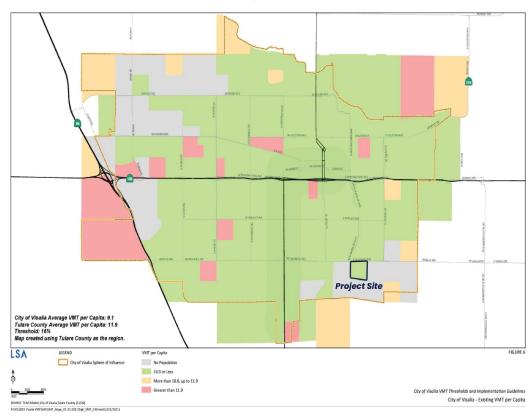


Figure 3-9: Visalia Existing VMT per Capita

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 project does not propose any incompatible uses or include any design features that could increase traffic hazards. The project introduces two additional vehicle entry points: one accessible from Ben Maddox Way and the other from Caldwell Avenue. The Ben Maddox Way access will become operational upon the completion of the Ben Maddox Way extension. This improvement will be subject to review by the City's engineer to ensure the

new access point does not pose any safety risks due to project design. The proposed project would not substantially increase hazards in or around the project area there is *no impact*.

# d) Would the project result in inadequate emergency access?

**No Impact:** This project would not result in inadequate emergency access. Emergency access to the site would be via Caldwell Avenue and Ben Maddox Way. During the first phase of construction, a portion of the extension on Ben Maddox Way would be constructed to access the first phase of construction. A network of local roads within the proposed project property provides full access to all buildings within the development. The Project would have no impact on emergency access.

## **XVIII. TRIBAL CULTURAL RESOURCES**

Would the project:		Less Than		
	Potentially	Significant	Less than	
	Significant	With	Significant	No
	Impact	Mitigation	Impact	Impact
	Impact	Incorporation	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		meerperation		
California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		☑		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (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.		Ø		

## **Environmental Setting**

The Project area is in the Southern Valley Yokuts ethnographic territory of the San Joaquin Valley and located between the Kings River and the north shore of Tulare Lake. The Yokuts were generally divided into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts. The Project area is likely within the Telamni Yokuts territory. The main village for this area was Waitatshuulul, which was approximately 3 miles east of the Project site along Packwood Creek.

The San Joaquin Valley did not experience contact with Europeans until the late 1700s. The earliest exploration of the San Joaquin Valley by Europeans was likely by the Spaniards when in the fall of 1772 a group known as the Catalonian Volunteers entered the valley through Tejon Pass in search of deserters from the Southern California Missions. However, the group only made it as far north as Buena Vista Lake in modern day Kern County before turning around due to the extensive swamps. Initial settlement within the valley by Europeans in the 1830s was largely either by trappers or horse thieves. With the end of the Mexican American War and the beginning of the

gold rush in 1848, the San Joaquin Valley became more populated with ranchers and prospectors. By 1850, California became a state, and Tulare County was established in 1853. Visalia, founded in 1852, is one of the oldest cities in the Southern San Joaquin Valley. During the first few decades, Visalia was a supply center for nearby gold rushes, and had an agricultural economy based on livestock and some agriculture.

## **Cultural Records Search**

The Project area is located in the USGS Visalia 7.5' Series Quadrangle (USGS 2021). On March 1, 2024, Soar Environmental submitted a records search request to the Southern San Joaquin Valley Information Center (SSJVIC) located at the California State University, Bakersfield (Appendix C). The records search included a 0.5-mile buffer around the Project area. The results from the records search indicate three (3) cultural resource studies have been conducted within the Project area. According to the information on file, there is two (2) resource within the Project area. These resources, however, were identified outside of the proposed 178-unit single family housing subdivision. As such, these resources will not be effected by the proposed project subdivision construction and staging activities. There are four (4) recorded resources within the 0.5-mile record search radius. There are no recorded cultural resources within the Project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

## **AB 52 Native American Consultation**

In accordance with AB 52, Native American Tribes that could potentially be impacted by the Project were contacted. The tribes that were formally noticed of this Project were the Santa Rosa Rancheria Tachi Yokut Tribe, Tule River Indian Tribe, and the Wuksache Indian Tribe/Eshom Valley Band. These Rancherias are not located within the City limits.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Soar Environmental did not receive comments from the Tulare County Native American groups or affiliated individuals regarding the proposed development at the project location.

## **Regulatory Setting**

In this report "cultural resources" are defined as prehistoric or historical archaeological sites as well as historical objects, buildings, or structures. In accordance with 30 Code of Federal Regulations (CFR) §60.4, "historical" in this report applies to cultural resources which are 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 or state level in the California Register of Historical Resources (CRHR), or at 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 statue 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 inclusion in the NRHP are deemed "historic properties."

## **National Historic Preservation Act**

The National Historic Preservation Act was adopted in 1966 to preserve historic 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 Register of Historical Resources

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California PRC § 5020.1[j])(State of California 2021). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California PRC § 5024.1(a)). The criteria for listing resources on the CRHR, enumerated in the following text, were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to California PRC § 5024.1(c) (1– 4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

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

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the National Register of Historic Places (NRHP), and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

## City of Visalia General Plan

Under Chapter 3, the City's Role and Tools for Preservation, in the General Plan of the City of Visalia defines a "cultural resources" as:

- Chapter 3.3: Sites, structures, or any other physical evidence associated with human
  activity considered important to be culturally important. This includes archaeological
  resources and contemporary Native American resources in addition to the historic
  resources that are the subject of this chapter. Impacts of development on cultural
  resources of all kinds must be avoided to the greatest extent possible, as described by
  policies in Chapter 6: Open Space and Conservation.
- Under Chapter 6, Open Space and Conservation, within the General Plan of the City of Visalia the following policies are outlined for the preservation of cultural resources:
- Chapter 6.5: OSC-P-39 Establish requirements to avoid potential impacts to sites suspected of being archeologically, paleontologically, or historically significant or of concern, by:
  - Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive.
  - o Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA).
  - Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity.
  - Implementing appropriate measures to avoid the identified impacts, as conditions of project approval.

In the event that previously unidentified historical, archaeological, or paleontological resources are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected. A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures, or appropriate

mitigation should be completed, according to CEQA Guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archaeological Resource Management Reports that will be used as guidelines.

#### **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: A records search was conducted on behalf of the Applicant from the SSJVIC of the CHRIS at California State University in Bakersfield, California, to determine if historical or archaeological sites had previously been recorded within the study area, if the Project area had been systematically surveyed by archaeologists prior to the initial study, and/or whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive.

There are four recorded resources and two reports identified within the 0.5-mile radius of the Project area. However, there are no recorded cultural resources within the Project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

Although no significant historical resources were identified on the site, the presence of remains or unanticipated cultural resources under the ground surface is possible. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that impacts to this checklist item will be *less than significant with mitigation* incorporation.

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:** The lead agency has not determined there to be any known tribal cultural resources located within the project area. Additionally, there are not believed to be any paleontological resources or human remains buried within the project area's vicinity. However, if resources were found to be significant pursuant to

criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American Tribe. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that any impacts resulting from project implementation remain *less than significant with mitigation* incorporation.

# Mitigation Measures for Impacts to Cultural Resources:

**Mitigation Measure CUL-1:** If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance.

If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

Mitigation Measure CUL-2: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

## XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:		Less Than		
	Potentially Significant Impact	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?			Ø	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			Ø	
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?				V
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				☑

# **Environmental Setting**

# Wastewater

Sewer services are provided to the site by the City of Visalia. The City owns a Water Conservation Plant (WCP) to treat wastewater. Presently, the WCP's permitted capacity as established by the Regional Water Quality Control Board (RWQCB) is 20 million gallons per day (mgd). A planned upgrade will increase the capacity to 26 mgd. The WCP has a daily flow of 13 mgd. The City of Visalia operates a sewer system divided into eight service areas. The system currently has over 468 miles of sewer pipe.

A Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) Calculation memo was prepared for this project to calculate the assumed volume of effluent (Appendix F). The result showed the Project would have an expected flow of 34,880 Gallons per day and produce a total BOD of 733.36 lbs/day and 646.44 lbs/day of TSS.

#### **Solid Waste**

The City of Visalia provides residential waste pickup but has contracts with companies for other aspects. Sunset Waste Systems provides waste collection for commercial uses and processes recyclable material. Tulare County Compost and Biomass processes green waste.

The Tulare County Resource Management Agency manages some solid waste disposal. Programs include household hazardous waste disposal, electronics recycling, tire recovery, yard waste recycling, metal recycling and appliance recovery programs. The county landfills approximately 300,000 tons of waste per year, which is equivalent to about 5 pounds per person per day or one ton per county resident per year. The County operates three disposal sites: the Visalia Disposal Site, northwest of Visalia; the Woodville Disposal Site, southeast of Tulare; and the Teapot Dome Disposal Site, southwest of Porterville. These sites have a remaining capacity of 24,258,052 cubic yards, with a total capacity of 37,101,523 cubic yards.

#### Water

The California Water Service Company (Cal Water) distribute groundwater supply. Cal Water's Visalia District supply wells extract groundwater from the Kaweah Groundwater Subbasin. The Cal Water system includes 75 operational groundwater wells, about one third of which have auxiliary power for backup. There are 519 miles of main pipeline in the system. The system includes two elevated 300,000-gallon storage tanks, an ion exchange treatment plant, four granular activated carbon filter plants and one nitrate blending facility. The system currently has the capacity to pump 100,829 acre-feet per year (afy), all from groundwater. This will be able to supply a growing population, as in 2010, 31,762 AF was needed. By 2030, the city is expected to use 43,002 afy.

## **Regulatory Setting**

## CalRecycle

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

## **Central Valley RWQCB**

The Central Valley RWQCB requires a Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a SWPPP to manage stormwater generated during project construction will be required. The Central Valley RWQCB regulates Wastewater Discharges to Land by establishing thresholds for discharged pollutants and implementing monitoring programs to evaluate program compliance. This program regulates approximately 1500 dischargers in the region.

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

# Cal Water Urban Water Management Plan (UWMP) – Visalia District

The UWMP describes the Visalia District service area, system demand and usage, available water resources, reliability of the water supply, and contingency planning for water shortage. It also contains a conservation section in compliance with SB X7-7 describing water usage reduction targets and implementation measures. The UWMP identifies five core programs for water conservation in the District that involve promotion of high-efficiency fixtures in residential settings, promotion of high-efficiency irrigation systems, and public information and education.

## City of Visalia General Plan

The 2030 General Plan includes the objectives and policies related to utilities and service systems that correlate to the proposed project:

- PSCU-O-14: Provide for long-range community water needs by adopting best management practices for water use, conservation, groundwater recharge and wastewater and stormwater management.
- PSCU-P-46: Adopt and implement a Water Efficient Landscaping Ordinance for new and/or refurbished development that exceeds mandated sizes, and ensure that all new City parks, streetscapes, and landscaped areas conform to the Ordinance's requirements.
   The Ordinance should include provisions to optimize outdoor water use by:
  - Promoting appropriate use of plants and landscaping;
  - Establishing limitations on use of turf including size of turf areas and use of coolseason turf such as Fescue grasses, with exceptions for specified uses (e.g., recreation playing fields, golf courses, and parks);
  - Establishing water budgets and penalties for exceeding them;
  - Requiring automatic irrigation systems and schedules, including controllers that incorporate weather-based or other self-adjusting technology;
  - o Promoting the use of recycled water; and
  - Minimizing overspray and runoff.
- PSCU-P-59: Require new developments to incorporate floodwater detention basins into project designs where consistent with the Stormwater Master Plan and the Groundwater Recharge Plan.
- PSCU-P-60: Control urban and stormwater runoff and point and non-point discharge of pollutants. As part of the City's Stormwater Management Program, adopt and implement a Stormwater Management Ordinance to minimize stormwater runoff rates and volumes,

control water pollution, and maximize groundwater recharge. New development will be required to include Low Impact Development features that reduce impermeable surface areas and increase infiltration. Such features may include, but are not limited to:

- Canopy trees or shrubs to absorb rainwater;
- Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate;
- Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
- Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces;
- On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and
- Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

## **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 proposed project would result in new water services. However, the proposed site has no change of use proposal. Visalia's current system for water and wastewater has the capacity to manage the projected growth expected in the General Plan. To compensate for these services, new development will be required to pay impact fees. It is not anticipated that implementation of the proposed project would result in increased demand for any utility services beyond the planned conditions. There is a less than significant impact.

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: Cal Water will provide water services. The City's water supply source is comprised of 75 operational groundwater wells. The system currently has the capacity to pump 100,829 acre-feet per year (afy), all from groundwater. This will be able to supply a growing population, as in 2010, 31,762 AF was needed. By 2030, the city is expected to use 43,002 afy. Using average per-person water use in Visalia (183 gallons; 2020 Urban Water Management Plan) and the average household size in Visalia (3.05 persons; US Census Bureau), water demand for the proposed 178-unit residential development is estimated to be approximately 99,351 gallons of water daily, or about 111-acre feet per year. With the system capacity at 100,829 afy, there will be enough water supply for the proposed project. The project does not propose any new or expanded uses against the Visalia General Plan. The available

water supply is expected to supply the projected population. In 2030, the projected demand is expected to 35,276 AF of groundwater, in 2035, there is expected to be 38,310 AF of groundwater, and in 2040 there is expected to be 41,258 AF of groundwater. To compensate for these services, new development will be required to pay impact fees for new water services, along with the reduced water use implementations from the polices set forth in the Visalia General Plan. Therefore, the impact is *less than significant*.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact: The Wastewater Treatment Facility (WWTF) provides municipal sewerage services to 96,000 residents in the city of Visalia. The WWTF has a design capacity of 22 million gallons per day (mgd) and currently treats a daily average flow of about 13 mgd. On average, wastewater in Visalia is generated at a rate of approximately 92 gallons per capita per day. With a proposed project population of 543 persons, the overall project projection would be 49,956 gallons per day. Therefore, the Project would generate approximately 0.05 MGD. From the Appendix F calculations, the project expects a total flow of 34,880 GPD. The WWTF has adequate capacity to serve the Project in addition to its existing commitments. The Project will have a less than significant impact on wastewater capacity.

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?

**No Impact:** The project does not propose any new or expanded uses and is therefore not anticipated to result in increased generation of solid waste beyond existing conditions. Additionally, the disposal sites are at less than half capacity. Because the City's existing infrastructure has the capacity to accommodate the solid waste currently planned in the General Plan for expanded population, it can be inferred that the existing solid waste infrastructure has adequate capacity to serve the proposed project. The project would not generate solid waste more than State or Local Standards and there is *no impact*.

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

**No Impact:** This proposed project conforms to all applicable statutes and regulations related to solid waste disposal. The proposed project will comply with the adopted policies related to solid waste, and will comply with all applicable federal, state, and local statutes and regulations pertaining to disposal of solid waste, including recycling. Therefore, the proposed project would have *no impact* on solid waste regulations.

## 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?				V
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?				V
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?			Ø	
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?				Ø

# **Environmental Setting**

There are no State Responsibility Areas (SRAs) within the vicinity of the project site, and the project site is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. This CEQA topic only applies to areas within an SRA or a Very High FHSZ.

## **Regulatory 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.

## **Discussion**

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? **No Impact:** The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The Visalia Fire Department will review the project to ensure the project does not impair emergency response or emergency evacuation. Additionally, the proposed project site is not located within an SRA or a Very High FHSZ. There is *no impact*.

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 located on a flat area of agricultural and urban land which is considered to be at little risk of fire. Additionally, the proposed project site is not located within an SRA or a Very High FHSZ. There is *no impact*.

c) Would the project 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?

**Less than Significant Impact:** The construction of the project involves adding new local residential streets, and new and relocated utilities. 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. The proposed project would not exacerbate fire risk and the impact would be *less than significant*.

d) Would the project 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 site is not located in an area designated as a Fire Hazard Severity Zone and lands associated with the Project site are relatively flat. Therefore, the project would not be susceptible to downslope or downstream flooding or landslides as a result of post-fire instability or drainage changes. There is *no impact*.

#### XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
		Incorporation		
a) Does the project have the potential substantially to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		☑		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			Ø	
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			Ø	

# **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, 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: This initial study/mitigated negative declaration found the project would have less than significant impacts on biological resources, and mitigation would be required for hydrology and water quality, historical, and Tribal cultural resources. Implementation of the identified mitigation measures for each respective section would ensure that impacts are less than significant with mitigation incorporation.

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: 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., increase in population could lead to an increased need for housing, increase in traffic, air pollutants, etc). 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 Initial Study indicate that the project is not expected to have 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 to 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 project in order to monitor the implementation of the mitigation measures that have been adopted for the project. This Mitigation Monitoring and Reporting Program (MMRP) has been created based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Barr-Wood Subdivision Project in the City of Visalia.

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, "Timing of Mitigation Measure" identifies the time the mitigation measure should be initiated. The fourth column, "Responsible Party for Monitoring," names the party ensuring that the mitigation measure is implemented. The last column will be used by the City to ensure that the individual mitigation measures have been monitored.

Plan checking and verification of mitigation compliance shall be the responsibility of the City of Visalia.

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure AG-1: Prior to the issuance of grading or building permits, the Project proponent shall mitigate impacts for loss of up to 32.61 acres of Prime Farmland and Farmland of Statewide Importance on the Project site at a 1:1 ratio. The amount of land requiring mitigation shall correspond to the amount of land associated with the issuance of the grading or building permit, or for residential land associated with a subdivision map, the amount of land associated with the subdivision map.  The Project proponent shall implement one or more of the following measures to mitigate the	Project Applicant	Prior to the Start of Construction	Contractor/ Lead Agency	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
loss: Payment of in-lieu fees, mitigation banks, fee title acquisition, and/or conservation easements, on land(s) within the Southern San Joaquin Valley of California, specifically within Kern County, Tulare County, Kings County, Fresno County, or Madera County. The City shall require, at a minimum: evidence that the preserved land has adequate water supply, agricultural zoning, evidence of land encumbrance documentation, documentation that the easement/regulations are permanent and monitored, and documentation that the mitigation strategy is appropriately endowed.				
This mitigation shall be verified by the City prior to issuance of grading or building permits.				
Mitigation Measure BIO- 1a: Nesting Bird, Roosting Bat, San Joaquin Kit Fox Den Survey If project-related activities are scheduled between February 1 to August 31 (the typical nesting season), a focused survey for nests, roosts, burrows or dens shall be conducted by a Designated Biologist within fourteen (14) calendar days prior to the beginning of Project-related activities. The Designated Biologist shall survey a minimum radius of 500-feet for Migratory Bird Treaty Act birds around the Project Area and for sign of roosting bats. If no	Project Applicant	Prior to the Start of Construction	Contractor/ Lead Agency	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
active nests, roosts, burrows or dens are found, project activities may proceed as scheduled.				
Mitigation Measure BIO-1b: Active Nests or Roosts or Burrows or Dens If an active nest, roost or burrow or den is located, then active nests, roosts or burrows or dens shall be avoided, and a no-disturbance or destruction buffer shall be determined and established by a Designated Biologist. The buffer shall be kept in place until after the breeding nesting season or the Designated Biologist confirms the young have fledged, are foraging independently, and the nest or burrow is no longer active for the season. The extent of these buffers shall be determined by the Designated Biologist and will depend on the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.	Project Applicant	Prior to the Start of Construction and ongoing	Contractor/ Lead Agency	
If an active San Joaquin kit fox den is located, then consultation with the USFWS would be required in order to document this federally listed species presence in the Project Area.				

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure CUL-1: If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance.  If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation	Project Applicant	Ongoing during construction	Contractor/ Lead Agency	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
shall be provided to a City- approved institution or person who is capable of providing long-term preservation to allow future scientific study.				
Mitigation Measure CUL-2: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has	Project Applicant	Ongoing during construction	Contractor/ Lead Agency	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.				
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 SWRCB Storm Water Permit Unit.  • Prior to issuance of grading permits for Phase 1 the Applicant shall submit a copy of the NOI to the City.  • The City shall review noticing documentation prior to approval of the grading permit. City monitoring staff will inspect the site during construction for compliance.	Project Applicant	Prior to the Start of Construction	Contractor/ Lead Agency	
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	Project Applicant	Prior to the Start of Construction	Contractor/ Lead Agency	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
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 storm water and shall include specific BMPs to control the discharge of material from the site. The following BMP methods shall include, but would not be limited to:				
<ul> <li>Dust control measures will be implemented to ensure success of all onsite activities to control fugitive dust;</li> <li>A routine monitoring plan will be implemented to ensure success of all onsite erosion and sedimentation control measures;</li> <li>Provisional detention basins, straw bales, erosion control blankets, mulching, silt</li> </ul>				

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
fencing, sand bagging, and soil stabilizers will be used;  • Soil stockpiles and graded slopes will be covered after two weeks of inactivity and 24 hours prior to and during extreme weather conditions and,  • BMPs will be strictly followed to prevent spills and discharges of pollutants onsite, such as material storage, trask 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 BMF 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	Project Applicant	Prior to the Start of Construction	Contractor/ Lead Agency	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Development Maintenance Manua shall include the following:				
<ul> <li>Runoff shall be directed away from trash and loading dock areas;</li> <li>Bins shall be lined or otherwise constructed to reduce leaking of liquid wastes;</li> <li>Trash and loading dock areas shall be screened or walled to minimize offsite transport of trash; and,</li> </ul>				
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

- **1.** AB 3098 List
- **2.** EMFAC2014
- **3.** Tulare County General Plan
- **4.** City of Visalia General Plan
- **5.** City of Visalia General Plan MEIR
- **6.** City of Visalia Greenhouse Gas Reduction Plan
- 7. City of Visalia Zoning Ordinance
- 8. Engineering Standards, City of Visalia
- **9.** SJVAPCD Regulations and Guidelines
- **10.** FEMA Flood Maps
- 11. California Air Resources Board's (CARB's) Air Quality and Land Use Handbook
- 12. 2024 California Environmental Quality Act CEQA Guidelines
- 13. California Building Code
- **14.** California Stormwater Pollution Prevention Program (SWPPP)
- **15.** "Construction Noise Handbook." U.S. Department of Transportation/Federal Highway Administration.
- **16.** Government Code Section 65962.5
- 17. California Environmental Protection Agency (CEPA) San Joaquin Valley Air Pollution Control District Mitigation Measures (<a href="http://www.valleyair.org/transportation/Mitigation-Measures.pdf">http://www.valleyair.org/transportation/Mitigation-Measures.pdf</a>
- 18. Southern California Edison 2022 Power Content Label
- **19.** Transit Noise and Vibration Impact Assessment, Federal Transit Administration, September 2018.
- **20.** 2020 U.S. Census
- 21. California Department of Transportation Scenic Roadways
- **22.** EPA, Intergovernmental Panel on Climate Change
- 23. 2020 Cal Water Urban Water Management Plan (UWMP) Visalia District
- **24.** State of California Governor's Office of Planning and Research
- 25. Phase I Cultural Resource Assessment Soar Environmental Consulting

# **Section 4**

**List of Preparers** 



# City of Visalia

315 E Acequia Ave Visalia, CA 93291

# SECTION 4 List of Preparers

**Project Title: Cameron Ranch Estates** 

# **List of Preparers**

## 4-Creeks Inc.

- Molly Baumeister, AICP
- Ellie Krantz, Associate Planner
- Emileo Padilla Chavez, Planning Intern

# **Persons and Agencies Consulted**

The following individuals and agencies contributed to this Initial Study/Mitigated Negative Declaration:

# City of Visalia

• Paul Bernal, Planning & Community Preservation Director

# **SOAR Environmental Consulting**

- Heather Froshour, M.A., R.P.A., Senior Archaeologist
- Kevin R Rowland, M.A., Archaeologist/Historian

# Appendix A

**Projected Emissions from CalEEMod** 

Date: 2/28/2024 11:31 AM

51

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **Cameron Ranch Estates**

#### **Tulare County, Annual**

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	178.00	Dwelling Unit	30.52	320,400.00	509
Other Asphalt Surfaces	13.08	Acre	13.08	569,764.80	0

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)

Climate Zone 7 Operational Year 2029

Utility Company Southern California Edison

 CO2 Intensity
 390.98
 CH4 Intensity
 0.033
 N20 Intensity
 0.004

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acerage based on site plan

Construction Phase -

Mobile Land Use Mitigation -

Area Mitigation -

**Energy Mitigation -**

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	8/5/2025	5/27/2025
tblConstructionPhase	PhaseEndDate	4/22/2025	2/11/2025
tblConstructionPhase	PhaseStartDate	4/23/2025	2/12/2025

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseStartDate	3/12/2025	1/1/2025
tblLandUse	LotAcreage	57.79	30.52
tblWoodstoves	NumberCatalytic	30.52	0.00
tblWoodstoves	NumberNoncatalytic	30.52	0.00

## 2.0 Emissions Summary

## 2.1 Overall Construction

**Unmitigated Construction** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							МТ	√yr		
2025	0.2752	2.3860	2.5784	6.5900e- 003	0.8153	0.0890	0.9043	0.3361	0.0825	0.4186	0.0000	589.9264	589.9264	0.1147	0.0197	598.6685
2026	0.3020	2.3455	3.1328	8.7900e- 003	0.4116	0.0744	0.4860	0.1117	0.0701	0.1817	0.0000	797.9954	797.9954	0.0786	0.0468	813.9060
2027	0.2940	2.3338	3.0742	8.6600e- 003	0.4116	0.0743	0.4859	0.1117	0.0699	0.1816	0.0000	785.8433	785.8433	0.0780	0.0455	801.3640
2028	3.3011	1.2679	1.7883	4.5000e- 003	0.1933	0.0448	0.2381	0.0524	0.0420	0.0944	0.0000	405.7359	405.7359	0.0517	0.0194	412.7941
Maximum	3.3011	2.3860	3.1328	8.7900e- 003	0.8153	0.0890	0.9043	0.3361	0.0825	0.4186	0.0000	797.9954	797.9954	0.1147	0.0468	813.9060

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 2.1 Overall Construction

#### **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2025	0.2752	2.3860	2.5784	6.5900e- 003	0.8153	0.0890	0.9043	0.3361	0.0825	0.4186	0.0000	589.9259	589.9259	0.1147	0.0197	598.6680
2026	0.3020	2.3455	3.1328	8.7900e- 003	0.4116	0.0744	0.4860	0.1117	0.0701	0.1817	0.0000	797.9951	797.9951	0.0786	0.0468	813.9056
2027	0.2940	2.3338	3.0742	8.6600e- 003	0.4116	0.0743	0.4859	0.1117	0.0699	0.1816	0.0000	785.8429	785.8429	0.0780	0.0455	801.3636
2028	3.3011	1.2679	1.7883	4.5000e- 003	0.1933	0.0448	0.2381	0.0524	0.0420	0.0944	0.0000	405.7357	405.7357	0.0517	0.0194	412.7939
Maximum	3.3011	2.3860	3.1328	8.7900e- 003	0.8153	0.0890	0.9043	0.3361	0.0825	0.4186	0.0000	797.9951	797.9951	0.1147	0.0468	813.9056

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2025	3-31-2025	0.9475	0.9475
2	4-1-2025	6-30-2025	0.6300	0.6300
3	7-1-2025	9-30-2025	0.4069	0.4069
4	10-1-2025	12-31-2025	0.6784	0.6784
5	1-1-2026	3-31-2026	0.6581	0.6581
6	4-1-2026	6-30-2026	0.6556	0.6556
7	7-1-2026	9-30-2026	0.6628	0.6628
8	10-1-2026	12-31-2026	0.6728	0.6728

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

9	1-1-2027	3-31-2027	0.6531	0.6531
10	4-1-2027	6-30-2027	0.6505	0.6505
11	7-1-2027	9-30-2027	0.6577	0.6577
12	10-1-2027	12-31-2027	0.6676	0.6676
13	1-1-2028	3-31-2028	0.6561	0.6561
14	4-1-2028	6-30-2028	0.5631	0.5631
15	7-1-2028	9-30-2028	1.7978	1.7978
		Highest	1.7978	1.7978

## 2.2 Overall Operational

#### **Unmitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	1.6482	0.0818	1.3489	4.9000e- 004		0.0127	0.0127	 	0.0127	0.0127	0.0000	79.2701	79.2701	3.5500e- 003	1.4100e- 003	79.7800
Energy	0.0228	0.1949	0.0829	1.2400e- 003	• • • • • • • • • • • • • • • • • • •	0.0158	0.0158	       	0.0158	0.0158	0.0000	476.3320	476.3320	0.0255	6.7000e- 003	478.9662
Mobile	0.6566	1.0257	6.1735	0.0151	1.7451	0.0119	1.7570	0.4667	0.0112	0.4779	0.0000	1,393.677 3	1,393.677 3	0.0696	0.0723	1,416.955 5
Waste						0.0000	0.0000	       	0.0000	0.0000	37.1961	0.0000	37.1961	2.1982	0.0000	92.1517
Water						0.0000	0.0000		0.0000	0.0000	3.6793	15.6673	19.3467	0.3792	9.0800e- 003	31.5341
Total	2.3276	1.3024	7.6053	0.0168	1.7451	0.0404	1.7855	0.4667	0.0397	0.5064	40.8754	1,964.946 8	2,005.822	2.6760	0.0895	2,099.387 6

CalEEMod Version: CalEEMod.2020.4.0 Page 5 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	1.6482	0.0818	1.3489	4.9000e- 004		0.0127	0.0127		0.0127	0.0127	0.0000	79.2701	79.2701	3.5500e- 003	1.4100e- 003	79.7800
Energy	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	476.3320	476.3320	0.0255	6.7000e- 003	478.9662
Mobile	0.6371	0.9702	5.8464	0.0141	1.6246	0.0112	1.6358	0.4345	0.0105	0.4450	0.0000	1,300.341 5	1,300.341 5	0.0666	0.0683	1,322.364 0
Waste						0.0000	0.0000		0.0000	0.0000	37.1961	0.0000	37.1961	2.1982	0.0000	92.1517
Water						0.0000	0.0000		0.0000	0.0000	3.6793	15.6673	19.3467	0.3792	9.0800e- 003	31.5341
Total	2.3082	1.2469	7.2782	0.0158	1.6246	0.0397	1.6643	0.4345	0.0390	0.4735	40.8754	1,871.611 0	1,912.486 3	2.6730	0.0855	2,004.796 0

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.84	4.26	4.30	6.01	6.90	1.86	6.79	6.90	1.79	6.50	0.00	4.75	4.65	0.11	4.43	4.51

## 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2025	2/11/2025	5	30	
2	Grading	Grading	2/12/2025	5/27/2025	5	75	
3	Building Construction	Building Construction	8/6/2025	6/6/2028	5	740	

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	6/7/2028	8/22/2028	5	55	
5	Architectural Coating	-	•	11/7/2028	5	55	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 225

Acres of Paving: 13.08

Residential Indoor: 648,810; Residential Outdoor: 216,270; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

34,186 (Architectural Coating - sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

CalEEMod Version: CalEEMod.2020.4.0 Page 7 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	303.00	112.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	61.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

#### 3.2 Site Preparation - 2025

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0371	0.3785	0.2687	5.7000e- 004		0.0163	0.0163		0.0150	0.0150	0.0000	50.2005	50.2005	0.0162	0.0000	50.6064
Total	0.0371	0.3785	0.2687	5.7000e- 004	0.2949	0.0163	0.3112	0.1515	0.0150	0.1665	0.0000	50.2005	50.2005	0.0162	0.0000	50.6064

CalEEMod Version: CalEEMod.2020.4.0 Page 8 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Site Preparation - 2025

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e- 004	5.1000e- 004	6.2000e- 003	2.0000e- 005	2.1500e- 003	1.0000e- 005	2.1600e- 003	5.7000e- 004	1.0000e- 005	5.8000e- 004	0.0000	1.5937	1.5937	5.0000e- 005	5.0000e- 005	1.6089
Total	8.0000e- 004	5.1000e- 004	6.2000e- 003	2.0000e- 005	2.1500e- 003	1.0000e- 005	2.1600e- 003	5.7000e- 004	1.0000e- 005	5.8000e- 004	0.0000	1.5937	1.5937	5.0000e- 005	5.0000e- 005	1.6089

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0371	0.3785	0.2687	5.7000e- 004		0.0163	0.0163	 	0.0150	0.0150	0.0000	50.2004	50.2004	0.0162	0.0000	50.6063
Total	0.0371	0.3785	0.2687	5.7000e- 004	0.2949	0.0163	0.3112	0.1515	0.0150	0.1665	0.0000	50.2004	50.2004	0.0162	0.0000	50.6063

CalEEMod Version: CalEEMod.2020.4.0 Page 9 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Site Preparation - 2025

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e- 004	5.1000e- 004	6.2000e- 003	2.0000e- 005	2.1500e- 003	1.0000e- 005	2.1600e- 003	5.7000e- 004	1.0000e- 005	5.8000e- 004	0.0000	1.5937	1.5937	5.0000e- 005	5.0000e- 005	1.6089
Total	8.0000e- 004	5.1000e- 004	6.2000e- 003	2.0000e- 005	2.1500e- 003	1.0000e- 005	2.1600e- 003	5.7000e- 004	1.0000e- 005	5.8000e- 004	0.0000	1.5937	1.5937	5.0000e- 005	5.0000e- 005	1.6089

#### 3.3 Grading - 2025

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust				i i	0.3451	0.0000	0.3451	0.1370	0.0000	0.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1088	1.0479	0.9874	2.3300e- 003		0.0424	0.0424		0.0390	0.0390	0.0000	204.3983	204.3983	0.0661	0.0000	206.0510
Total	0.1088	1.0479	0.9874	2.3300e- 003	0.3451	0.0424	0.3875	0.1370	0.0390	0.1760	0.0000	204.3983	204.3983	0.0661	0.0000	206.0510

CalEEMod Version: CalEEMod.2020.4.0 Page 10 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2025

#### **Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2100e- 003	1.4300e- 003	0.0172	5.0000e- 005	5.9700e- 003	3.0000e- 005	6.0000e- 003	1.5900e- 003	3.0000e- 005	1.6100e- 003	0.0000	4.4270	4.4270	1.3000e- 004	1.3000e- 004	4.4692
Total	2.2100e- 003	1.4300e- 003	0.0172	5.0000e- 005	5.9700e- 003	3.0000e- 005	6.0000e- 003	1.5900e- 003	3.0000e- 005	1.6100e- 003	0.0000	4.4270	4.4270	1.3000e- 004	1.3000e- 004	4.4692

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Fugitive Dust					0.3451	0.0000	0.3451	0.1370	0.0000	0.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1088	1.0479	0.9874	2.3300e- 003		0.0424	0.0424		0.0390	0.0390	0.0000	204.3981	204.3981	0.0661	0.0000	206.0507
Total	0.1088	1.0479	0.9874	2.3300e- 003	0.3451	0.0424	0.3875	0.1370	0.0390	0.1760	0.0000	204.3981	204.3981	0.0661	0.0000	206.0507

CalEEMod Version: CalEEMod.2020.4.0 Page 11 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2025

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2100e- 003	1.4300e- 003	0.0172	5.0000e- 005	5.9700e- 003	3.0000e- 005	6.0000e- 003	1.5900e- 003	3.0000e- 005	1.6100e- 003	0.0000	4.4270	4.4270	1.3000e- 004	1.3000e- 004	4.4692
Total	2.2100e- 003	1.4300e- 003	0.0172	5.0000e- 005	5.9700e- 003	3.0000e- 005	6.0000e- 003	1.5900e- 003	3.0000e- 005	1.6100e- 003	0.0000	4.4270	4.4270	1.3000e- 004	1.3000e- 004	4.4692

## 3.4 Building Construction - 2025

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0725	0.6609	0.8525	1.4300e- 003		0.0280	0.0280		0.0263	0.0263	0.0000	122.9173	122.9173	0.0289	0.0000	123.6397
Total	0.0725	0.6609	0.8525	1.4300e- 003		0.0280	0.0280		0.0263	0.0263	0.0000	122.9173	122.9173	0.0289	0.0000	123.6397

CalEEMod Version: CalEEMod.2020.4.0 Page 12 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2025 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3600e- 003	0.2663	0.0774	1.1600e- 003	0.0393	1.7200e- 003	0.0410	0.0113	1.6500e- 003	0.0130	0.0000	111.5987	111.5987	5.0000e- 004	0.0167	116.5999
Worker	0.0474	0.0306	0.3690	1.0300e- 003	0.1279	5.9000e- 004	0.1285	0.0340	5.4000e- 004	0.0346	0.0000	94.7908	94.7908	2.8100e- 003	2.7900e- 003	95.6935
Total	0.0538	0.2968	0.4464	2.1900e- 003	0.1672	2.3100e- 003	0.1695	0.0454	2.1900e- 003	0.0475	0.0000	206.3896	206.3896	3.3100e- 003	0.0195	212.2934

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0725	0.6609	0.8525	1.4300e- 003		0.0280	0.0280	1 1 1	0.0263	0.0263	0.0000	122.9172	122.9172	0.0289	0.0000	123.6395
Total	0.0725	0.6609	0.8525	1.4300e- 003		0.0280	0.0280		0.0263	0.0263	0.0000	122.9172	122.9172	0.0289	0.0000	123.6395

CalEEMod Version: CalEEMod.2020.4.0 Page 13 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2025

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr					MT	/yr				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3600e- 003	0.2663	0.0774	1.1600e- 003	0.0393	1.7200e- 003	0.0410	0.0113	1.6500e- 003	0.0130	0.0000	111.5987	111.5987	5.0000e- 004	0.0167	116.5999
Worker	0.0474	0.0306	0.3690	1.0300e- 003	0.1279	5.9000e- 004	0.1285	0.0340	5.4000e- 004	0.0346	0.0000	94.7908	94.7908	2.8100e- 003	2.7900e- 003	95.6935
Total	0.0538	0.2968	0.4464	2.1900e- 003	0.1672	2.3100e- 003	0.1695	0.0454	2.1900e- 003	0.0475	0.0000	206.3896	206.3896	3.3100e- 003	0.0195	212.2934

## 3.4 Building Construction - 2026

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.1785	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

CalEEMod Version: CalEEMod.2020.4.0 Page 14 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2026 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0153	0.6513	0.1874	2.8100e- 003	0.0966	4.2100e- 003	0.1009	0.0279	4.0300e- 003	0.0320	0.0000	269.7200	269.7200	1.1900e- 003	0.0404	281.7884
Worker	0.1082	0.0670	0.8464	2.4600e- 003	0.3150	1.3700e- 003	0.3163	0.0837	1.2600e- 003	0.0850	0.0000	225.6205	225.6205	6.2300e- 003	6.4000e- 003	227.6841
Total	0.1235	0.7183	1.0338	5.2700e- 003	0.4116	5.5800e- 003	0.4172	0.1117	5.2900e- 003	0.1170	0.0000	495.3405	495.3405	7.4200e- 003	0.0468	509.4725

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.1784	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

CalEEMod Version: CalEEMod.2020.4.0 Page 15 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2026

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0153	0.6513	0.1874	2.8100e- 003	0.0966	4.2100e- 003	0.1009	0.0279	4.0300e- 003	0.0320	0.0000	269.7200	269.7200	1.1900e- 003	0.0404	281.7884
Worker	0.1082	0.0670	0.8464	2.4600e- 003	0.3150	1.3700e- 003	0.3163	0.0837	1.2600e- 003	0.0850	0.0000	225.6205	225.6205	6.2300e- 003	6.4000e- 003	227.6841
Total	0.1235	0.7183	1.0338	5.2700e- 003	0.4116	5.5800e- 003	0.4172	0.1117	5.2900e- 003	0.1170	0.0000	495.3405	495.3405	7.4200e- 003	0.0468	509.4725

## 3.4 Building Construction - 2027

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.1785	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

CalEEMod Version: CalEEMod.2020.4.0 Page 16 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2027 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr					MT	/yr				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.6463	0.1848	2.7600e- 003	0.0966	4.1800e- 003	0.1008	0.0279	4.0000e- 003	0.0319	0.0000	264.2814	264.2814	1.1500e- 003	0.0395	276.0904
Worker	0.1005	0.0602	0.7903	2.3900e- 003	0.3150	1.2900e- 003	0.3163	0.0837	1.1800e- 003	0.0849	0.0000	218.9070	218.9070	5.6600e- 003	6.0100e- 003	220.8401
Total	0.1156	0.7065	0.9751	5.1500e- 003	0.4116	5.4700e- 003	0.4171	0.1117	5.1800e- 003	0.1169	0.0000	483.1884	483.1884	6.8100e- 003	0.0455	496.9305

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.1784	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e- 003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

CalEEMod Version: CalEEMod.2020.4.0 Page 17 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2027

**Mitigated Construction Off-Site** 

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.6463	0.1848	2.7600e- 003	0.0966	4.1800e- 003	0.1008	0.0279	4.0000e- 003	0.0319	0.0000	264.2814	264.2814	1.1500e- 003	0.0395	276.0904
Worker	0.1005	0.0602	0.7903	2.3900e- 003	0.3150	1.2900e- 003	0.3163	0.0837	1.1800e- 003	0.0849	0.0000	218.9070	218.9070	5.6600e- 003	6.0100e- 003	220.8401
Total	0.1156	0.7065	0.9751	5.1500e- 003	0.4116	5.4700e- 003	0.4171	0.1117	5.1800e- 003	0.1169	0.0000	483.1884	483.1884	6.8100e- 003	0.0455	496.9305

## 3.4 Building Construction - 2028

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr				MT	/yr					
Off-Road	0.0766	0.6983	0.9007	1.5100e- 003		0.0295	0.0295		0.0278	0.0278	0.0000	129.8749	129.8749	0.0305	0.0000	130.6381
Total	0.0766	0.6983	0.9007	1.5100e- 003		0.0295	0.0295		0.0278	0.0278	0.0000	129.8749	129.8749	0.0305	0.0000	130.6381

CalEEMod Version: CalEEMod.2020.4.0 Page 18 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2028 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3400e- 003	0.2758	0.0784	1.1600e- 003	0.0415	1.7800e- 003	0.0433	0.0120	1.7000e- 003	0.0137	0.0000	111.1853	111.1853	4.8000e- 004	0.0166	116.1465
Worker	0.0402	0.0234	0.3192	1.0000e- 003	0.1352	5.2000e- 004	0.1357	0.0359	4.7000e- 004	0.0364	0.0000	91.3495	91.3495	2.2200e- 003	2.4400e- 003	92.1321
Total	0.0465	0.2992	0.3976	2.1600e- 003	0.1766	2.3000e- 003	0.1789	0.0479	2.1700e- 003	0.0501	0.0000	202.5348	202.5348	2.7000e- 003	0.0191	208.2787

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0766	0.6983	0.9007	1.5100e- 003		0.0295	0.0295	 	0.0278	0.0278	0.0000	129.8747	129.8747	0.0305	0.0000	130.6380
Total	0.0766	0.6983	0.9007	1.5100e- 003		0.0295	0.0295		0.0278	0.0278	0.0000	129.8747	129.8747	0.0305	0.0000	130.6380

CalEEMod Version: CalEEMod.2020.4.0 Page 19 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Building Construction - 2028

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3400e- 003	0.2758	0.0784	1.1600e- 003	0.0415	1.7800e- 003	0.0433	0.0120	1.7000e- 003	0.0137	0.0000	111.1853	111.1853	4.8000e- 004	0.0166	116.1465
Worker	0.0402	0.0234	0.3192	1.0000e- 003	0.1352	5.2000e- 004	0.1357	0.0359	4.7000e- 004	0.0364	0.0000	91.3495	91.3495	2.2200e- 003	2.4400e- 003	92.1321
Total	0.0465	0.2992	0.3976	2.1600e- 003	0.1766	2.3000e- 003	0.1789	0.0479	2.1700e- 003	0.0501	0.0000	202.5348	202.5348	2.7000e- 003	0.0191	208.2787

#### 3.5 Paving - 2028

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0252	0.2360	0.4009	6.3000e- 004		0.0115	0.0115		0.0106	0.0106	0.0000	55.0530	55.0530	0.0178	0.0000	55.4981
Paving	0.0171	 				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0423	0.2360	0.4009	6.3000e- 004		0.0115	0.0115		0.0106	0.0106	0.0000	55.0530	55.0530	0.0178	0.0000	55.4981

CalEEMod Version: CalEEMod.2020.4.0 Page 20 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2028
<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e- 004	5.7000e- 004	7.7600e- 003	2.0000e- 005	3.2900e- 003	1.0000e- 005	3.3000e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.2208	2.2208	5.0000e- 005	6.0000e- 005	2.2398
Total	9.8000e- 004	5.7000e- 004	7.7600e- 003	2.0000e- 005	3.2900e- 003	1.0000e- 005	3.3000e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.2208	2.2208	5.0000e- 005	6.0000e- 005	2.2398

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0252	0.2360	0.4009	6.3000e- 004		0.0115	0.0115		0.0106	0.0106	0.0000	55.0529	55.0529	0.0178	0.0000	55.4980
Paving	0.0171		       			0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0423	0.2360	0.4009	6.3000e- 004		0.0115	0.0115		0.0106	0.0106	0.0000	55.0529	55.0529	0.0178	0.0000	55.4980

CalEEMod Version: CalEEMod.2020.4.0 Page 21 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e- 004	5.7000e- 004	7.7600e- 003	2.0000e- 005	3.2900e- 003	1.0000e- 005	3.3000e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.2208	2.2208	5.0000e- 005	6.0000e- 005	2.2398
Total	9.8000e- 004	5.7000e- 004	7.7600e- 003	2.0000e- 005	3.2900e- 003	1.0000e- 005	3.3000e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.2208	2.2208	5.0000e- 005	6.0000e- 005	2.2398

## 3.6 Architectural Coating - 2028 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Archit. Coating	3.1261					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7000e- 003	0.0315	0.0498	8.0000e- 005		1.4200e- 003	1.4200e- 003		1.4200e- 003	1.4200e- 003	0.0000	7.0215	7.0215	3.8000e- 004	0.0000	7.0310
Total	3.1308	0.0315	0.0498	8.0000e- 005		1.4200e- 003	1.4200e- 003		1.4200e- 003	1.4200e- 003	0.0000	7.0215	7.0215	3.8000e- 004	0.0000	7.0310

CalEEMod Version: CalEEMod.2020.4.0 Page 22 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.6 Architectural Coating - 2028 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9700e- 003	2.3200e- 003	0.0316	1.0000e- 004	0.0134	5.0000e- 005	0.0134	3.5500e- 003	5.0000e- 005	3.6000e- 003	0.0000	9.0310	9.0310	2.2000e- 004	2.4000e- 004	9.1084
Total	3.9700e- 003	2.3200e- 003	0.0316	1.0000e- 004	0.0134	5.0000e- 005	0.0134	3.5500e- 003	5.0000e- 005	3.6000e- 003	0.0000	9.0310	9.0310	2.2000e- 004	2.4000e- 004	9.1084

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Archit. Coating	3.1261					0.0000	0.0000	i i i	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7000e- 003	0.0315	0.0498	8.0000e- 005		1.4200e- 003	1.4200e- 003	1 1 1 1	1.4200e- 003	1.4200e- 003	0.0000	7.0214	7.0214	3.8000e- 004	0.0000	7.0310
Total	3.1308	0.0315	0.0498	8.0000e- 005		1.4200e- 003	1.4200e- 003		1.4200e- 003	1.4200e- 003	0.0000	7.0214	7.0214	3.8000e- 004	0.0000	7.0310

CalEEMod Version: CalEEMod.2020.4.0 Page 23 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.6 Architectural Coating - 2028

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	3.9700e- 003	2.3200e- 003	0.0316	1.0000e- 004	0.0134	5.0000e- 005	0.0134	3.5500e- 003	5.0000e- 005	3.6000e- 003	0.0000	9.0310	9.0310	2.2000e- 004	2.4000e- 004	9.1084
Total	3.9700e- 003	2.3200e- 003	0.0316	1.0000e- 004	0.0134	5.0000e- 005	0.0134	3.5500e- 003	5.0000e- 005	3.6000e- 003	0.0000	9.0310	9.0310	2.2000e- 004	2.4000e- 004	9.1084

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

CalEEMod Version: CalEEMod.2020.4.0 Page 24 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.6371	0.9702	5.8464	0.0141	1.6246	0.0112	1.6358	0.4345	0.0105	0.4450	0.0000	1,300.341 5	1,300.341 5	0.0666	0.0683	1,322.364 0
Unmitigated	0.6566	1.0257	6.1735	0.0151	1.7451	0.0119	1.7570	0.4667	0.0112	0.4779	0.0000	1,393.677 3	1,393.677 3	0.0696	0.0723	1,416.955 5

#### **4.2 Trip Summary Information**

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,680.32	1,698.12	1521.90	4,679,751	4,356,848
Total	1,680.32	1,698.12	1,521.90	4,679,751	4,356,848

#### 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.543900	0.052074	0.169338	0.146948	0.025505	0.006806	0.012216	0.015911	0.000622	0.000466	0.021989	0.001307	0.002918
Single Family Housing	0.543900	0.052074	0.169338	0.146948	0.025505	0.006806	0.012216	0.015911	0.000622	0.000466	0.021989	0.001307	0.002918

#### 5.0 Energy Detail

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

## **5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	250.6129	250.6129	0.0212	2.5600e- 003	251.9057
Electricity Unmitigated					   	0.0000	0.0000		0.0000	0.0000	0.0000	250.6129	250.6129	0.0212	2.5600e- 003	251.9057
NaturalGas Mitigated	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605
NaturalGas Unmitigated	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605

CalEEMod Version: CalEEMod.2020.4.0 Page 26 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.2 Energy by Land Use - NaturalGas

## <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	/yr tons/yr MT/yr															
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.22982e +006	0.0228	0.1949	0.0829	1.2400e- 003	     	0.0158	0.0158	 	0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605
Total		0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605

### **Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	! !	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.22982e +006	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605
Total		0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605

CalEEMod Version: CalEEMod.2020.4.0 Page 27 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.41313e +006	250.6129	0.0212	2.5600e- 003	251.9057
Total		250.6129	0.0212	2.5600e- 003	251.9057

#### **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	√yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.41313e +006	250.6129	0.0212	2.5600e- 003	251.9057
Total		250.6129	0.0212	2.5600e- 003	251.9057

### 6.0 Area Detail

CalEEMod Version: CalEEMod.2020.4.0 Page 28 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	y tons/yr												MT	-/yr		
Mitigated	1.6482	0.0818	1.3489	4.9000e- 004		0.0127	0.0127	 	0.0127	0.0127	0.0000	79.2701	79.2701	3.5500e- 003	1.4100e- 003	79.7800
Unmitigated	1.6482	0.0818	1.3489	4.9000e- 004		0.0127	0.0127	i i i	0.0127	0.0127	0.0000	79.2701	79.2701	3.5500e- 003	1.4100e- 003	79.7800

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 6.2 Area by SubCategory

#### **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory		tons/yr											МТ	/yr		
Architectural Coating	0.3126		 			0.0000	0.0000	i i	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	1.2882		     		     	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7900e- 003	0.0666	0.0283	4.3000e- 004		5.3800e- 003	5.3800e- 003	1	5.3800e- 003	5.3800e- 003	0.0000	77.1109	77.1109	1.4800e- 003	1.4100e- 003	77.5692
Landscaping	0.0397	0.0152	1.3205	7.0000e- 005		7.3300e- 003	7.3300e- 003	1	7.3300e- 003	7.3300e- 003	0.0000	2.1592	2.1592	2.0700e- 003	0.0000	2.2109
Total	1.6482	0.0818	1.3489	5.0000e- 004		0.0127	0.0127		0.0127	0.0127	0.0000	79.2701	79.2701	3.5500e- 003	1.4100e- 003	79.7800

CalEEMod Version: CalEEMod.2020.4.0 Page 30 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							MT	/yr		
Architectural Coating	0.3126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2882					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7900e- 003	0.0666	0.0283	4.3000e- 004		5.3800e- 003	5.3800e- 003	 	5.3800e- 003	5.3800e- 003	0.0000	77.1109	77.1109	1.4800e- 003	1.4100e- 003	77.5692
Landscaping	0.0397	0.0152	1.3205	7.0000e- 005		7.3300e- 003	7.3300e- 003		7.3300e- 003	7.3300e- 003	0.0000	2.1592	2.1592	2.0700e- 003	0.0000	2.2109
Total	1.6482	0.0818	1.3489	5.0000e- 004		0.0127	0.0127		0.0127	0.0127	0.0000	79.2701	79.2701	3.5500e- 003	1.4100e- 003	79.7800

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category		МТ	/yr	
ga.ea	19.3467	0.3792	9.0800e- 003	31.5341
Unmitigated	19.3467	0.3792	9.0800e- 003	31.5341

## 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	11.5974 / 7.31141	19.3467	0.3792	9.0800e- 003	31.5341
Total		19.3467	0.3792	9.0800e- 003	31.5341

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	11.5974 / 7.31141	19.3467	0.3792	9.0800e- 003	31.5341
Total		19.3467	0.3792	9.0800e- 003	31.5341

#### 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

#### Category/Year

Total CO2	CH4	N2O	CO2e
	MT	/yr	
37.1961	2.1982	0.0000	92.1517
	2.1982	0.0000	92.1517

CalEEMod Version: CalEEMod.2020.4.0 Page 33 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 8.2 Waste by Land Use

#### **Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	183.24	37.1961	2.1982	0.0000	92.1517
Total		37.1961	2.1982	0.0000	92.1517

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	183.24	37.1961	2.1982	0.0000	92.1517
Total		37.1961	2.1982	0.0000	92.1517

## 9.0 Operational Offroad

CalEEMod Version: CalEEMod.2020.4.0 Page 34 of 34 Date: 2/28/2024 11:31 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

## **10.0 Stationary Equipment**

#### **Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

#### **Boilers**

Equipment Type Number Heat Input/Day Heat Input/Year Boiler Rating Fuel T	quipment Type
---	---------------

#### **User Defined Equipment**

Equipment Type	Number

#### 11.0 Vegetation

# **Appendix B**

2005 BAU from CalEEMod

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **Cameron Ranch Estates**

#### **Tulare County, Annual**

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	13.08	Acre	13.08	569,764.80	0
Single Family Housing	178.00	Dwelling Unit	30.52	320,400.00	509

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2

Precipitation Freq (Days) 51

Climate Zone 7

**Operational Year** 

2010

Date: 3/4/2024 11:40 AM

Utility Company Southern California Edison

CO2 Intensity 390.98 (lb/MWhr)

CH4 Intensity (lb/MWhr)

0.033

N2O Intensity (lb/MWhr)

0.004

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acerage based on site plan

Construction Phase -

Mobile Land Use Mitigation -

Area Mitigation -

**Energy Mitigation -**

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	57.79	30.52
tblWoodstoves	NumberCatalytic	30.52	0.00
tblWoodstoves	NumberNoncatalytic	30.52	0.00

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.0 Emissions Summary

#### 2.1 Overall Construction

**Unmitigated Construction** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2005	1.8556	11.0662	9.0340	0.0775	0.8925	0.6299	1.5224	0.3570	0.6254	0.9825	0.0000	938.6915	938.6915	0.1418	0.0593	959.8929
2006	2.0900	10.2882	11.2870	0.0754	0.4100	0.6184	1.0284	0.1112	0.6109	0.7222	0.0000	1,047.094 9	1,047.094 9	0.1546	0.0975	1,080.009 2
2007	2.0981	10.3277	11.3304	0.0757	0.4116	0.6207	1.0323	0.1117	0.6133	0.7249	0.0000	1,051.122 2	1,051.122 2	0.1552	0.0979	1,084.163 1
2008	5.8790	3.8429	3.7036	0.0270	0.1176	0.2358	0.3533	0.0318	0.2339	0.2657	0.0000	349.6240	349.6240	0.0557	0.0263	358.8596
Maximum	5.8790	11.0662	11.3304	0.0775	0.8925	0.6299	1.5224	0.3570	0.6254	0.9825	0.0000	1,051.122 2	1,051.122 2	0.1552	0.0979	1,084.163 1

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 2.1 Overall Construction

#### **Mitigated Construction**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2005	1.8556	11.0662	9.0340	0.0775	0.8925	0.6299	1.5224	0.3570	0.6254	0.9825	0.0000	938.6909	938.6909	0.1418	0.0593	959.8923
2006	2.0900	10.2882	11.2870	0.0754	0.4100	0.6184	1.0284	0.1112	0.6109	0.7222	0.0000	1,047.094 5	1,047.094 5	0.1546	0.0975	1,080.008 8
2007	2.0981	10.3277	11.3304	0.0757	0.4116	0.6207	1.0323	0.1117	0.6133	0.7249	0.0000	1,051.121 8	1,051.121 8	0.1552	0.0979	1,084.162 7
2008	5.8790	3.8429	3.7036	0.0270	0.1176	0.2358	0.3533	0.0318	0.2339	0.2657	0.0000	349.6238	349.6238	0.0557	0.0263	358.8594
Maximum	5.8790	11.0662	11.3304	0.0775	0.8925	0.6299	1.5224	0.3570	0.6254	0.9825	0.0000	1,051.121 8	1,051.121 8	0.1552	0.0979	1,084.162 7

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4 4 9005 2 24 9005	
1 1-1-2005 3-31-2005 3.1866	3.1866
<b>2 4-1-2005 6-30-2005</b> 3.5003	3.5003
<b>3 7-1-2005 9-30-2005</b> 3.0912	3.0912
4 10-1-2005 12-31-2005 3.1727	3.1727
5 <b>1-1-2006 3-31-2006</b> 3.1037	3.1037
<b>6 4-1-2006 6-30-2006</b> 3.0576	3.0576
7 <b>7-1-2006 9-30-2006</b> 3.0912	3.0912
8 10-1-2006 12-31-2006 3.1727	3.1727

CalEEMod Version: CalEEMod.2020.4.0 Page 4 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

9	1-1-2007	3-31-2007	3.1037	3.1037
10	4-1-2007	6-30-2007	3.0576	3.0576
11	7-1-2007	9-30-2007	3.0912	3.0912
12	10-1-2007	12-31-2007	3.1727	3.1727
13	1-1-2008	3-31-2008	3.0870	3.0870
14	4-1-2008	6-30-2008	2.4652	2.4652
15	7-1-2008	9-30-2008	4.1592	4.1592
		Highest	4.1592	4.1592

# 2.2 Overall Operational

#### **Unmitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	1.8595	0.0834	1.4350	4.9000e- 004		0.0123	0.0123	 	0.0123	0.0123	0.0000	79.2701	79.2701	4.1100e- 003	1.4100e- 003	79.7941
Energy	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158	       	0.0158	0.0158	0.0000	476.3320	476.3320	0.0255	6.7000e- 003	478.9662
Mobile	2.4696	5.7400	26.5407	0.0245	1.7543	0.1105	1.8648	0.4707	0.1051	0.5758	0.0000	2,261.434 3	2,261.434 3	0.2631	0.2036	2,328.687 1
Waste			,			0.0000	0.0000		0.0000	0.0000	37.1961	0.0000	37.1961	2.1982	0.0000	92.1517
Water	,		,—————— , ,		<del></del>	0.0000	0.0000	,	0.0000	0.0000	3.6793	15.6673	19.3467	0.3792	9.0800e- 003	31.5341
Total	4.3519	6.0184	28.0586	0.0262	1.7543	0.1386	1.8929	0.4707	0.1332	0.6039	40.8754	2,832.703 8	2,873.579	2.8701	0.2208	3,011.133 3

CalEEMod Version: CalEEMod.2020.4.0 Page 5 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	1.8595	0.0834	1.4350	4.9000e- 004		0.0123	0.0123		0.0123	0.0123	0.0000	79.2701	79.2701	4.1100e- 003	1.4100e- 003	79.7941
Energy	0.0228	0.1949	0.0829	1.2400e- 003	 	0.0158	0.0158	   	0.0158	0.0158	0.0000	476.3320	476.3320	0.0255	6.7000e- 003	478.9662
Mobile	2.4696	5.7400	26.5407	0.0245	1.7543	0.1105	1.8648	0.4707	0.1051	0.5758	0.0000	2,261.434 3	2,261.434 3	0.2631	0.2036	2,328.687 1
Waste	ii ii ii		 			0.0000	0.0000		0.0000	0.0000	37.1961	0.0000	37.1961	2.1982	0.0000	92.1517
Water	ii ii ii					0.0000	0.0000		0.0000	0.0000	3.6793	15.6673	19.3467	0.3792	9.0800e- 003	31.5341
Total	4.3519	6.0184	28.0586	0.0262	1.7543	0.1386	1.8929	0.4707	0.1332	0.6039	40.8754	2,832.703 8	2,873.579 2	2.8701	0.2208	3,011.133 3

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2005	2/11/2005	5	30	
2	Grading	Grading	2/12/2005	5/27/2005	5	75	
3	Building Construction	Building Construction	5/28/2005	3/28/2008	5	740	

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving		6/13/2008	5	55	
5	Architectural Coating	•	6/14/2008	8/29/2008	5	55	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 225

Acres of Paving: 13.08

Residential Indoor: 648,810; Residential Outdoor: 216,270; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

34,186 (Architectural Coating - sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

CalEEMod Version: CalEEMod.2020.4.0 Page 7 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	303.00	112.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	61.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

#### 3.2 Site Preparation - 2005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1400	1.0489	0.3947	6.7500e- 003		0.0647	0.0647		0.0647	0.0647	0.0000	60.0069	60.0069	0.0114	0.0000	60.2922
Total	0.1400	1.0489	0.3947	6.7500e- 003	0.2949	0.0647	0.3596	0.1515	0.0647	0.2163	0.0000	60.0069	60.0069	0.0114	0.0000	60.2922

CalEEMod Version: CalEEMod.2020.4.0 Page 8 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Site Preparation - 2005

#### **Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7400e- 003	6.0500e- 003	0.0482	3.0000e- 005	2.1500e- 003	6.0000e- 005	2.2100e- 003	5.7000e- 004	5.0000e- 005	6.2000e- 004	0.0000	2.4006	2.4006	3.8000e- 004	3.0000e- 004	2.4996
Total	4.7400e- 003	6.0500e- 003	0.0482	3.0000e- 005	2.1500e- 003	6.0000e- 005	2.2100e- 003	5.7000e- 004	5.0000e- 005	6.2000e- 004	0.0000	2.4006	2.4006	3.8000e- 004	3.0000e- 004	2.4996

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1400	1.0489	0.3947	6.7500e- 003		0.0647	0.0647		0.0647	0.0647	0.0000	60.0069	60.0069	0.0114	0.0000	60.2921
Total	0.1400	1.0489	0.3947	6.7500e- 003	0.2949	0.0647	0.3596	0.1515	0.0647	0.2163	0.0000	60.0069	60.0069	0.0114	0.0000	60.2921

CalEEMod Version: CalEEMod.2020.4.0 Page 9 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Site Preparation - 2005

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7400e- 003	6.0500e- 003	0.0482	3.0000e- 005	2.1500e- 003	6.0000e- 005	2.2100e- 003	5.7000e- 004	5.0000e- 005	6.2000e- 004	0.0000	2.4006	2.4006	3.8000e- 004	3.0000e- 004	2.4996
Total	4.7400e- 003	6.0500e- 003	0.0482	3.0000e- 005	2.1500e- 003	6.0000e- 005	2.2100e- 003	5.7000e- 004	5.0000e- 005	6.2000e- 004	0.0000	2.4006	2.4006	3.8000e- 004	3.0000e- 004	2.4996

#### 3.3 Grading - 2005

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.3451	0.0000	0.3451	0.1370	0.0000	0.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4518	3.8612	1.7283	0.0256		0.1963	0.1963		0.1963	0.1963	0.0000	245.3860	245.3860	0.0368	0.0000	246.3060
Total	0.4518	3.8612	1.7283	0.0256	0.3451	0.1963	0.5414	0.1370	0.1963	0.3333	0.0000	245.3860	245.3860	0.0368	0.0000	246.3060

CalEEMod Version: CalEEMod.2020.4.0 Page 10 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2005

#### **Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	0.0168	0.1339	7.0000e- 005	5.9700e- 003	1.6000e- 004	6.1300e- 003	1.5900e- 003	1.5000e- 004	1.7300e- 003	0.0000	6.6683	6.6683	1.0600e- 003	8.3000e- 004	6.9435
Total	0.0132	0.0168	0.1339	7.0000e- 005	5.9700e- 003	1.6000e- 004	6.1300e- 003	1.5900e- 003	1.5000e- 004	1.7300e- 003	0.0000	6.6683	6.6683	1.0600e- 003	8.3000e- 004	6.9435

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/уг		
Fugitive Dust					0.3451	0.0000	0.3451	0.1370	0.0000	0.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4518	3.8612	1.7283	0.0256	 	0.1963	0.1963		0.1963	0.1963	0.0000	245.3857	245.3857	0.0368	0.0000	246.3057
Total	0.4518	3.8612	1.7283	0.0256	0.3451	0.1963	0.5414	0.1370	0.1963	0.3333	0.0000	245.3857	245.3857	0.0368	0.0000	246.3057

CalEEMod Version: CalEEMod.2020.4.0 Page 11 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2005

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	0.0168	0.1339	7.0000e- 005	5.9700e- 003	1.6000e- 004	6.1300e- 003	1.5900e- 003	1.5000e- 004	1.7300e- 003	0.0000	6.6683	6.6683	1.0600e- 003	8.3000e- 004	6.9435
Total	0.0132	0.0168	0.1339	7.0000e- 005	5.9700e- 003	1.6000e- 004	6.1300e- 003	1.5900e- 003	1.5000e- 004	1.7300e- 003	0.0000	6.6683	6.6683	1.0600e- 003	8.3000e- 004	6.9435

# 3.4 Building Construction - 2005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.5825	3.2120	1.5801	0.0236		0.2697	0.2697		0.2697	0.2697	0.0000	203.7173	203.7173	0.0475	0.0000	204.9057
Total	0.5825	3.2120	1.5801	0.0236		0.2697	0.2697		0.2697	0.2697	0.0000	203.7173	203.7173	0.0475	0.0000	204.9057

CalEEMod Version: CalEEMod.2020.4.0 Page 12 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2005 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2513	2.3952	0.9550	0.0191	0.0574	0.0940	0.1514	0.0166	0.0900	0.1065	0.0000	211.7269	211.7269	0.0116	0.0320	221.5464
Worker	0.4122	0.5261	4.1937	2.2800e- 003	0.1871	4.9400e- 003	0.1920	0.0497	4.5800e- 003	0.0543	0.0000	208.7854	208.7854	0.0331	0.0261	217.3995
Total	0.6635	2.9213	5.1487	0.0214	0.2444	0.0990	0.3434	0.0663	0.0945	0.1608	0.0000	420.5124	420.5124	0.0446	0.0581	438.9459

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.5825	3.2120	1.5801	0.0236		0.2697	0.2697	1	0.2697	0.2697	0.0000	203.7171	203.7171	0.0475	0.0000	204.9055
Total	0.5825	3.2120	1.5801	0.0236		0.2697	0.2697		0.2697	0.2697	0.0000	203.7171	203.7171	0.0475	0.0000	204.9055

CalEEMod Version: CalEEMod.2020.4.0 Page 13 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2005

**Mitigated Construction Off-Site** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2513	2.3952	0.9550	0.0191	0.0574	0.0940	0.1514	0.0166	0.0900	0.1065	0.0000	211.7269	211.7269	0.0116	0.0320	221.5464
Worker	0.4122	0.5261	4.1937	2.2800e- 003	0.1871	4.9400e- 003	0.1920	0.0497	4.5800e- 003	0.0543	0.0000	208.7854	208.7854	0.0331	0.0261	217.3995
Total	0.6635	2.9213	5.1487	0.0214	0.2444	0.0990	0.3434	0.0663	0.0945	0.1608	0.0000	420.5124	420.5124	0.0446	0.0581	438.9459

# 3.4 Building Construction - 2006

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.9770	5.3879	2.6505	0.0395		0.4524	0.4524		0.4524	0.4524	0.0000	341.7193	341.7193	0.0797	0.0000	343.7129
Total	0.9770	5.3879	2.6505	0.0395		0.4524	0.4524		0.4524	0.4524	0.0000	341.7193	341.7193	0.0797	0.0000	343.7129

CalEEMod Version: CalEEMod.2020.4.0 Page 14 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2006 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4216	4.0178	1.6019	0.0321	0.0962	0.1577	0.2540	0.0278	0.1509	0.1787	0.0000	355.1548	355.1548	0.0194	0.0537	371.6263
Worker	0.6914	0.8825	7.0347	3.8300e- 003	0.3138	8.2900e- 003	0.3221	0.0834	7.6900e- 003	0.0911	0.0000	350.2207	350.2207	0.0555	0.0438	364.6701
Total	1.1130	4.9003	8.6365	0.0359	0.4100	0.1660	0.5760	0.1112	0.1586	0.2698	0.0000	705.3756	705.3756	0.0749	0.0975	736.2964

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.9770	5.3878	2.6505	0.0395		0.4524	0.4524		0.4524	0.4524	0.0000	341.7189	341.7189	0.0797	0.0000	343.7124
Total	0.9770	5.3878	2.6505	0.0395		0.4524	0.4524		0.4524	0.4524	0.0000	341.7189	341.7189	0.0797	0.0000	343.7124

CalEEMod Version: CalEEMod.2020.4.0 Page 15 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2006

**Mitigated Construction Off-Site** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4216	4.0178	1.6019	0.0321	0.0962	0.1577	0.2540	0.0278	0.1509	0.1787	0.0000	355.1548	355.1548	0.0194	0.0537	371.6263
Worker	0.6914	0.8825	7.0347	3.8300e- 003	0.3138	8.2900e- 003	0.3221	0.0834	7.6900e- 003	0.0911	0.0000	350.2207	350.2207	0.0555	0.0438	364.6701
Total	1.1130	4.9003	8.6365	0.0359	0.4100	0.1660	0.5760	0.1112	0.1586	0.2698	0.0000	705.3756	705.3756	0.0749	0.0975	736.2964

# 3.4 Building Construction - 2007

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.9808	5.4086	2.6607	0.0397		0.4541	0.4541		0.4541	0.4541	0.0000	343.0336	343.0336	0.0801	0.0000	345.0348
Total	0.9808	5.4086	2.6607	0.0397		0.4541	0.4541		0.4541	0.4541	0.0000	343.0336	343.0336	0.0801	0.0000	345.0348

CalEEMod Version: CalEEMod.2020.4.0 Page 16 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2007 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4232	4.0332	1.6081	0.0322	0.0966	0.1583	0.2549	0.0279	0.1515	0.1794	0.0000	356.5208	356.5208	0.0195	0.0539	373.0556
Worker	0.6941	0.8859	7.0617	3.8400e- 003	0.3150	8.3200e- 003	0.3233	0.0837	7.7200e- 003	0.0915	0.0000	351.5677	351.5677	0.0557	0.0440	366.0726
Total	1.1173	4.9192	8.6698	0.0360	0.4116	0.1666	0.5782	0.1117	0.1592	0.2709	0.0000	708.0885	708.0885	0.0752	0.0979	739.1283

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.9808	5.4086	2.6607	0.0397		0.4541	0.4541		0.4541	0.4541	0.0000	343.0332	343.0332	0.0801	0.0000	345.0344
Total	0.9808	5.4086	2.6607	0.0397		0.4541	0.4541		0.4541	0.4541	0.0000	343.0332	343.0332	0.0801	0.0000	345.0344

CalEEMod Version: CalEEMod.2020.4.0 Page 17 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2007 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4232	4.0332	1.6081	0.0322	0.0966	0.1583	0.2549	0.0279	0.1515	0.1794	0.0000	356.5208	356.5208	0.0195	0.0539	373.0556
Worker	0.6941	0.8859	7.0617	3.8400e- 003	0.3150	8.3200e- 003	0.3233	0.0837	7.7200e- 003	0.0915	0.0000	351.5677	351.5677	0.0557	0.0440	366.0726
Total	1.1173	4.9192	8.6698	0.0360	0.4116	0.1666	0.5782	0.1117	0.1592	0.2709	0.0000	708.0885	708.0885	0.0752	0.0979	739.1283

# 3.4 Building Construction - 2008 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.2405	1.3262	0.6524	9.7300e- 003		0.1114	0.1114		0.1114	0.1114	0.0000	84.1155	84.1155	0.0196	0.0000	84.6062
Total	0.2405	1.3262	0.6524	9.7300e- 003		0.1114	0.1114		0.1114	0.1114	0.0000	84.1155	84.1155	0.0196	0.0000	84.6062

CalEEMod Version: CalEEMod.2020.4.0 Page 18 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2008 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1038	0.9890	0.3943	7.8900e- 003	0.0237	0.0388	0.0625	6.8500e- 003	0.0371	0.0440	0.0000	87.4227	87.4227	4.7700e- 003	0.0132	91.4772
Worker	0.1702	0.2172	1.7316	9.4000e- 004	0.0772	2.0400e- 003	0.0793	0.0205	1.8900e- 003	0.0224	0.0000	86.2082	86.2082	0.0137	0.0108	89.7649
Total	0.2740	1.2062	2.1259	8.8300e- 003	0.1009	0.0409	0.1418	0.0274	0.0390	0.0664	0.0000	173.6309	173.6309	0.0184	0.0240	181.2422

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
J on read	0.2405	1.3262	0.6524	9.7300e- 003		0.1114	0.1114	 	0.1114	0.1114	0.0000	84.1154	84.1154	0.0196	0.0000	84.6061
Total	0.2405	1.3262	0.6524	9.7300e- 003		0.1114	0.1114		0.1114	0.1114	0.0000	84.1154	84.1154	0.0196	0.0000	84.6061

CalEEMod Version: CalEEMod.2020.4.0 Page 19 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.4 Building Construction - 2008

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1038	0.9890	0.3943	7.8900e- 003	0.0237	0.0388	0.0625	6.8500e- 003	0.0371	0.0440	0.0000	87.4227	87.4227	4.7700e- 003	0.0132	91.4772
Worker	0.1702	0.2172	1.7316	9.4000e- 004	0.0772	2.0400e- 003	0.0793	0.0205	1.8900e- 003	0.0224	0.0000	86.2082	86.2082	0.0137	0.0108	89.7649
Total	0.2740	1.2062	2.1259	8.8300e- 003	0.1009	0.0409	0.1418	0.0274	0.0390	0.0664	0.0000	173.6309	173.6309	0.0184	0.0240	181.2422

#### 3.5 Paving - 2008

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.1592	1.1458	0.4949	7.4200e- 003		0.0726	0.0726		0.0726	0.0726	0.0000	66.2737	66.2737	0.0130	0.0000	66.5983
Paving	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1763	1.1458	0.4949	7.4200e- 003		0.0726	0.0726		0.0726	0.0726	0.0000	66.2737	66.2737	0.0130	0.0000	66.5983

CalEEMod Version: CalEEMod.2020.4.0 Page 20 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2008
Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	7.2400e- 003	9.2400e- 003	0.0737	4.0000e- 005	3.2900e- 003	9.0000e- 005	3.3700e- 003	8.7000e- 004	8.0000e- 005	9.5000e- 004	0.0000	3.6676	3.6676	5.8000e- 004	4.6000e- 004	3.8189
Total	7.2400e- 003	9.2400e- 003	0.0737	4.0000e- 005	3.2900e- 003	9.0000e- 005	3.3700e- 003	8.7000e- 004	8.0000e- 005	9.5000e- 004	0.0000	3.6676	3.6676	5.8000e- 004	4.6000e- 004	3.8189

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.1592	1.1458	0.4949	7.4200e- 003		0.0726	0.0726		0.0726	0.0726	0.0000	66.2736	66.2736	0.0130	0.0000	66.5983
Paving	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1763	1.1458	0.4949	7.4200e- 003		0.0726	0.0726		0.0726	0.0726	0.0000	66.2736	66.2736	0.0130	0.0000	66.5983

CalEEMod Version: CalEEMod.2020.4.0 Page 21 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2008

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2400e- 003	9.2400e- 003	0.0737	4.0000e- 005	3.2900e- 003	9.0000e- 005	3.3700e- 003	8.7000e- 004	8.0000e- 005	9.5000e- 004	0.0000	3.6676	3.6676	5.8000e- 004	4.6000e- 004	3.8189
Total	7.2400e- 003	9.2400e- 003	0.0737	4.0000e- 005	3.2900e- 003	9.0000e- 005	3.3700e- 003	8.7000e- 004	8.0000e- 005	9.5000e- 004	0.0000	3.6676	3.6676	5.8000e- 004	4.6000e- 004	3.8189

# 3.6 Architectural Coating - 2008 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	5.1309					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0207	0.1178	0.0572	8.2000e- 004		0.0106	0.0106		0.0106	0.0106	0.0000	7.0215	7.0215	1.6900e- 003	0.0000	7.0638
Total	5.1516	0.1178	0.0572	8.2000e- 004		0.0106	0.0106		0.0106	0.0106	0.0000	7.0215	7.0215	1.6900e- 003	0.0000	7.0638

CalEEMod Version: CalEEMod.2020.4.0 Page 22 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.6 Architectural Coating - 2008 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0294	0.0376	0.2996	1.6000e- 004	0.0134	3.5000e- 004	0.0137	3.5500e- 003	3.3000e- 004	3.8800e- 003	0.0000	14.9148	14.9148	2.3600e- 003	1.8700e- 003	15.5302
Total	0.0294	0.0376	0.2996	1.6000e- 004	0.0134	3.5000e- 004	0.0137	3.5500e- 003	3.3000e- 004	3.8800e- 003	0.0000	14.9148	14.9148	2.3600e- 003	1.8700e- 003	15.5302

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
7 troint. Codding	5.1309					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0207	0.1178	0.0572	8.2000e- 004		0.0106	0.0106		0.0106	0.0106	0.0000	7.0214	7.0214	1.6900e- 003	0.0000	7.0638
Total	5.1516	0.1178	0.0572	8.2000e- 004		0.0106	0.0106		0.0106	0.0106	0.0000	7.0214	7.0214	1.6900e- 003	0.0000	7.0638

CalEEMod Version: CalEEMod.2020.4.0 Page 23 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.6 Architectural Coating - 2008

**Mitigated Construction Off-Site** 

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0294	0.0376	0.2996	1.6000e- 004	0.0134	3.5000e- 004	0.0137	3.5500e- 003	3.3000e- 004	3.8800e- 003	0.0000	14.9148	14.9148	2.3600e- 003	1.8700e- 003	15.5302
Total	0.0294	0.0376	0.2996	1.6000e- 004	0.0134	3.5000e- 004	0.0137	3.5500e- 003	3.3000e- 004	3.8800e- 003	0.0000	14.9148	14.9148	2.3600e- 003	1.8700e- 003	15.5302

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

CalEEMod Version: CalEEMod.2020.4.0 Page 24 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	2.4696	5.7400	26.5407	0.0245	1.7543	0.1105	1.8648	0.4707	0.1051	0.5758	0.0000	2,261.434 3	2,261.434 3	0.2631	0.2036	2,328.687 1
Unmitigated	2.4696	5.7400	26.5407	0.0245	1.7543	0.1105	1.8648	0.4707	0.1051	0.5758	0.0000	2,261.434 3	2,261.434 3	0.2631	0.2036	2,328.687 1

#### **4.2 Trip Summary Information**

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,680.32	1,698.12	1521.90	4,679,751	4,679,751
Total	1,680.32	1,698.12	1,521.90	4,679,751	4,679,751

# 4.3 Trip Type Information

		Miles			Trip %			Trip Purpose %					
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by				
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0				
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3				

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.428189	0.070895	0.165995	0.215914	0.047522	0.008681	0.013333	0.012976	0.000955	0.000418	0.026058	0.002026	0.007039
Single Family Housing	0.428189	0.070895	0.165995	0.215914	0.047522	0.008681	0.013333	0.012976	0.000955	0.000418	0.026058	0.002026	0.007039

#### 5.0 Energy Detail

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	250.6129	250.6129	0.0212	2.5600e- 003	251.9057
Electricity Unmitigated					   	0.0000	0.0000		0.0000	0.0000	0.0000	250.6129	250.6129	0.0212	2.5600e- 003	251.9057
NaturalGas Mitigated	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605
	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605

CalEEMod Version: CalEEMod.2020.4.0 Page 26 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

#### NaturalGa ROG CO SO2 PM10 PM2.5 Bio- CO2 NBio- CO2 Total CO2 CH4 N2O CO2e NOx Fugitive Exhaust **Fugitive** Exhaust PM10 PM2.5 s Use PM10 Total PM2.5 Total MT/yr Land Use kBTU/yr tons/yr 0.0000 Other Asphalt 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Surfaces 0.0228 0.0829 0.0158 0.0158 0.0158 0.0000 225.7192 225.7192 4.3300e-227.0605 1.2400e-0.0158 4.1400e-Single Family 4.22982e 0.1949 +006 003 Housing 003 003 225.7192 227.0605 0.0228 0.1949 0.0829 1.2400e-0.0158 0.0158 0.0158 0.0158 0.0000 225.7192 4.3300e-4.1400e-Total 003 003 003

#### **Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.22982e +006	0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605
Total		0.0228	0.1949	0.0829	1.2400e- 003		0.0158	0.0158		0.0158	0.0158	0.0000	225.7192	225.7192	4.3300e- 003	4.1400e- 003	227.0605

CalEEMod Version: CalEEMod.2020.4.0 Page 27 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.41313e +006	250.6129	0.0212	2.5600e- 003	251.9057
Total		250.6129	0.0212	2.5600e- 003	251.9057

### **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.41313e +006	250.6129	0.0212	2.5600e- 003	251.9057
Total		250.6129	0.0212	2.5600e- 003	251.9057

#### 6.0 Area Detail

CalEEMod Version: CalEEMod.2020.4.0 Page 28 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	√yr		
Mitigated	1.8595	0.0834	1.4350	4.9000e- 004		0.0123	0.0123		0.0123	0.0123	0.0000	79.2701	79.2701	4.1100e- 003	1.4100e- 003	79.7941
Unmitigated	1.8595	0.0834	1.4350	4.9000e- 004		0.0123	0.0123		0.0123	0.0123	0.0000	79.2701	79.2701	4.1100e- 003	1.4100e- 003	79.7941

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 6.2 Area by SubCategory

#### **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	0.5131					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	1.2882					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7900e- 003	0.0666	0.0283	4.3000e- 004		5.3800e- 003	5.3800e- 003		5.3800e- 003	5.3800e- 003	0.0000	77.1109	77.1109	1.4800e- 003	1.4100e- 003	77.5692
Landscaping	0.0505	0.0169	1.4067	7.0000e- 005		6.9600e- 003	6.9600e- 003		6.9600e- 003	6.9600e- 003	0.0000	2.1592	2.1592	2.6300e- 003	0.0000	2.2249
Total	1.8595	0.0834	1.4350	5.0000e- 004		0.0123	0.0123		0.0123	0.0123	0.0000	79.2701	79.2701	4.1100e- 003	1.4100e- 003	79.7941

CalEEMod Version: CalEEMod.2020.4.0 Page 30 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							MT	/yr		
Architectural Coating	0.5131					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2882				 	0.0000	0.0000	         	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7900e- 003	0.0666	0.0283	4.3000e- 004	 	5.3800e- 003	5.3800e- 003	       	5.3800e- 003	5.3800e- 003	0.0000	77.1109	77.1109	1.4800e- 003	1.4100e- 003	77.5692
Landscaping	0.0505	0.0169	1.4067	7.0000e- 005	 	6.9600e- 003	6.9600e- 003	       	6.9600e- 003	6.9600e- 003	0.0000	2.1592	2.1592	2.6300e- 003	0.0000	2.2249
Total	1.8595	0.0834	1.4350	5.0000e- 004		0.0123	0.0123		0.0123	0.0123	0.0000	79.2701	79.2701	4.1100e- 003	1.4100e- 003	79.7941

# 7.0 Water Detail

# 7.1 Mitigation Measures Water

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category		МТ	/yr	
milgalou	19.3467	0.3792	9.0800e- 003	31.5341
Unmitigated	19.3467	0.3792	9.0800e- 003	31.5341

# 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	11.5974 / 7.31141	19.3467	0.3792	9.0800e- 003	31.5341
Total		19.3467	0.3792	9.0800e- 003	31.5341

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	11.5974 / 7.31141	19.3467	0.3792	9.0800e- 003	31.5341
Total		19.3467	0.3792	9.0800e- 003	31.5341

#### 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
		MT	/yr	
Mitigated	. 07.1001	2.1982	0.0000	92.1517
Unmitigated		2.1982	0.0000	92.1517

CalEEMod Version: CalEEMod.2020.4.0 Page 33 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 8.2 Waste by Land Use

#### **Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	183.24	37.1961	2.1982	0.0000	92.1517
Total		37.1961	2.1982	0.0000	92.1517

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	183.24	37.1961	2.1982	0.0000	92.1517
Total		37.1961	2.1982	0.0000	92.1517

# 9.0 Operational Offroad

CalEEMod Version: CalEEMod.2020.4.0 Page 34 of 34 Date: 3/4/2024 11:40 AM

#### Cameron Ranch Estates - Tulare County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

# **10.0 Stationary Equipment**

#### **Fire Pumps and Emergency Generators**

Equipment Type Number Hours/Day Hours/Year Horse Power Load Factor Fuel Typ	Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
---	----------------	--------	-----------	------------	-------------	-------------	-----------

#### **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

#### **User Defined Equipment**

Equipment Type	Number

#### 11.0 Vegetation

# **Appendix C**

**Cultural Records Search Results** 



# Cameron Ranch, Phase I Cultural Resources Assessment Visalia, CA 93292 Assessor Parcel Numbers 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 Tulare County, California



Prepared for 4Creeks 324 S Santa Fe St a, Visalia CA, 93292



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Archaeologist/Historian

March 26, 2024



#### **EXECUTIVE SUMMARY**

Soar Environmental Consulting, Inc. (Soar Environmental) has been retained by 4Creeks, Inc. (4Creeks) to prepare a Phase 1 Cultural Resources Assessment (Phase 1 CRA) as part of an Initial Study, for a Housing Subdivision Development Project (Project) in the city of Visalia (City), in accordance with the California Environmental Quality Act (CEQA) prior to implementation of the proposed Project. The proposed project is to construct 178 housing units on 43.6-acres on Assessor Parcel Numbers (APNs) 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007. The purpose of the CRA is to provide an inventory of the known and potentially significant cultural resources within the Project area through a California Historical Records Information search (CHRIS) using the Eastern Information Center (EIC), as well as a Sacred Lands File & Native American Contacts List Request through the Native American Heritage Commission (NAHC).

The results of the records search indicate four (4) cultural resource(s) recorded within 0.50-mile of the Project area. The records searches indicate two (2) recorded resources within the Project area. The pedestrian survey identified no existing resources within the Project area. No site testing or mitigation measures are required, unless previously undiscovered cultural resources are detected during construction.



# Contents

EXECUTIVE SUMMARY	ii
1.0 INTRODUCTION.	3
1.1 Project Description	4
1.2 Existing Conditions	
2.0 REGULATORY SETTING	
2.1 Federal	5
2.2 State of California	5
2.3 Local	
3.0 SETTING.	1(
3.1 Environmental Setting	
3.2 Cultural Setting	
3.2.1 Prehistoric Setting	
3.2.2 Ethnographic Setting	
3.2.3 Historic Setting	
4.0 ARCHIVAL RECORDS SEARCH.	
4.1 South San Joaquin Valley Information Center Records Search	
4.2 Sacred Lands File & Native American Contacts List Request	
4.3 Historic Aerial Image Review	
5.0 PREVIOUS DISTURBANCES IN THE PROJECT AREA	
6.0 FIELD SURVEY METHODS AND RESULTS	
7.0 RECOMMENDED ACTIONS AND MITIGATION MEASSURES	
8.0 REFERENCES CITED.	18
FIGURES	
Figure 1— Project Location, adapted from USGS 7.5' series Visalia, California,	
2021	23
Figure 2— Figure 2— Project Boundary Map adapted from USGS 7.5' series Visalia,	
California, 2003.	24
Figure 3— Soil Types Occurring in the Project area.	25
Figure 4— Proposed Site Plan	26
Figure 5— Overview of dirt road west of 1345 E Caldwell Ave, facing south	27
Figure 6— North edge of Tulare irrigation ditch toward agricultural field, facing southwest.	28
Figure 7— Overview from east edge of Project area, facing west	29
Figure 8— Overview from south edge of Project area, facing north	30
Figure 9— Metal bridge between properties outside south edge of Project area, facing east	31
Figure 10— Overview from south-southwest of Project area, facing northeast	32
Figure 11— Overview from west edge of Project area, facing east	33
Figure 12— Overview of northwest bend in orchard, facing north	34
Figure 13— Overview from northwest corner of Project area, facing south	35
J / U	





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TABLES	
Table 1: Survey Reports within the Project area	14
Table 2: Resources within the Project area	14
Table 3: Survey Reports within 0.5 Mile of the Project area	15
Table 4: Resources within 0.5 Mile of Project area	15
APENDICIES	
Appendix A: Records Search from Southern San Joaquin Valley Information Center	36
Appendix B: Sacred Lands File & Native American Contacts List Request	48
Appendix C: Staff Resumes.	66



#### 1.0 Introduction

This report details the results of a Phase 1 Cultural Resources Assessment in support of the proposed housing subdivision development on 46.3-acres in Visalia, California, on Assessor Parcel Numbers (APNs) 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 (Figures 1-4). This Phase 1 report is prepared pursuant to the California Environmental Quality Act (CEQA), PRC Sections 21082, 21083.2, and 21084.1, and California Code of Regulations 15064.5.

Heather Froshour and Kevin Rowland completed the archival review, the Native American consultation, field survey, and prepared this Phase 1 report. Ms. Froshour is Soar Environmental's Senior Archaeologist who meets the professional standards of the U.S. Secretary of the Interior for archaeology (36 CFR 61) and is certified by the Register of Professional Archaeologists. Mr. Rowland is Soar Environmental's Archaeologist and Historian.

Soar Environmental requested a records search from the Southern San Joaquin Valley Information Center (CHRIS) for the Project area as well as a 0.50-mile buffer. The archival research for this Phase 1 report was positive for archaeological sites or historical resources within the Project area. The archival record search reported four (4) recorded resources within a 0.5-mile radius of the Project area. The records revealed three (3) previous cultural resources surveys had been conducted in the Project area. A total of two (2) additional cultural resource survey reports have been completed within a 0.50-mile radius of the Project area.

As part of the background research, Soar Environmental also requested a search of the Sacred Lands File (SLF) from the Native American Heritage Commission (NAHC). The results of the records review and SLF search were negative. The NAHC suggested contacting five (5) individuals representing three (3) Native American tribal groups to find out if they have additional information about the Project area. Soar Environmental sent outreach letters to all five (5) recommended tribal individuals. No response was received.

Soar Environmental conducted an intensive pedestrian survey of the project on March 12, 2024. This field survey was negative for surface archaeological resources within the Project area. As currently designed, the proposed project will not impact any known in situ archaeological sites or historical resources.

It is recommended, however, in the event that cultural resources are encountered during construction activities associated with the Project, a qualified archaeologist shall be obtained to assess the significance of the find in accordance with the criteria set forth in CEQA Guidelines 15064.5(f). In addition, Health and Safety Code 7050.5, CEQA 15064.5(e), and Public Resources Code 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of any human remains in a location other than a dedicated cemetery.



# 1.1 Project Description

The Project proposes construction of a 178-unit housing subdivision development on East Caldwell Ave in the city of Visalia (Figures 1-4). The proposed construction lies within the 43.6-acre area on APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007. These parcels are comprised of agricultural fields on the outskirts of the city. Grading of the area will be accomplished using a backhoe and grader.

The project will require the development of roads and sidewalks around and throughout the property. This proposed housing subdivision development project tentative subdivision plan will be implemented in two phases. The first phase will be the construction of 117 single family housing units on the upper north half of the Project area. Phase 2 of the tentative subdivision plan includes the construction of an additional 61 single-family housing units on the lower south portion of the Project area (Figure 4). Since the entire property will be graded for the housing project during construction activities, the orchard throughout the Project area, in addition to the small section of vineyard in the northeast corner, would be removed (Figures 5-13).

# **1.2 Existing Condition**

The Project area is located in the in the San Joaquin Valley on 43.6-acres located approximately five meters south from Ave 280 on East Caldwell Ave. on Assessor Parcel Numbers (APNs) 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 (Figure 1-4). The Project area is approximately 0.5 kilometers east of the Tulare Irrigation Company Canal. The Project area is in Tulare County within Section 4-9 Township 19 Range 12, Mount Diablo Base Meridian, as shown on the Visalia, CA 7.5' U.S Geological Survey (USGS) topographical quadrangle (Figure 1). Orchards are present to the east of the Project area, with predominantly urban residential areas in the north and south A new subdivision, including several city streets, is being developed on the cleared properties to the west.

Surface soils consist of approximately 76.1.% Nord soil series within the upper north, central, and west and the Grangeville soil series within 23.9% in a thin band to the east and south edge of the Project area (Figure 4). The Nord soil series is typically very deep, well-drained, and formed in mixed alluvium dominantly from granite and sedimentary rocks. This soil is made up of grayish brown fine sandy loam at surface with brown fine sandy loam below. The Grangeville soil series is typically consistent of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium, primarily from granitic rock sources. The soil is made up of grayish brown fine sandy loam at the surface with a light brownish gray fine sandy loam below. The elevation of the Project area ranges from 330-331 (ft) above mean sea level (United States Department of Agriculture, 1980). The properties have functioned as irrigated orchard and include a irrigation drainage ditch along the east, southeast, and southern bounties.



#### 2.0 REGULATORY SETTING

Federal, State and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA) are the basic federal and state laws governing preservation of historic and archaeological resources of national, regional, State and local significance.

#### 2.1 Federal

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act (NHPA) of 1966. Section 106 of NHPA requires Federal agencies to consider the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties", are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites which are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal money.

#### 2.2 State

#### California Register of Historical Resources

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California PRC § 5020.1[j]) (State of California 2021). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California PRC § 5024.1(a)). The criteria for listing resources on the CRHR, enumerated in the following text, were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to California PRC § 5024.1(c) (1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

1) It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.



- 2) It is associated with the lives of people 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

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the National Register of Historic Places (NRHP), and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

#### California Health and Safety Code, §7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code, §7050.5, requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (California Health and Safety Code, §7050.5b). California PRC §5097.98, also outlines the process to be followed in the event that remains are discovered. If the County Coroner determines or has reason to believe the remains are those of a Native American, the County Coroner must contact the California NAHC within 24 hours (California Health and Safety Code, §7050.5c)(State of California 2021). The NAHC will notify the most likely descendant. With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

#### **California State Assembly Bill 52**

Assembly Bill (AB) 52 of 2014 amended California PRC § 5097.94, and added California PRC §21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. California PRC §21074, defines tribal cultural resources as follows:



- (a) Section 21074 of the Public Resources Code states that "tribal cultural resources" are either of the following:
  - (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    - (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
    - (B) Included in a local register of historical resources as defined in subdivision (k) of §5020.1.
  - (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of §5024.1. In applying the criteria set forth in subdivision (c) of §5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe. A cultural landscape that meets the criteria of subdivision:
    - (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
    - (b) A historical resource described in §21084.1, a unique archaeological resource as defined in subdivision (g) of §21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of §21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American tribes located on the contact list maintained by the Native American Heritage Commission (NAHC). This includes California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report (EIR).

Section 9 of AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Section 6 of AB 52 added §21080.3.2 to the California PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding Project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (California PRC §21080.3.2[a]). The environmental document and the mitigation



monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (California PRC §21082.3[a]).

#### **Native American Human Remains**

State law (California PRC §5097 et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and established the NAHC.

In the event that Native American human remains, or related cultural material are encountered, §15064.5(e) of the CEQA Guidelines (as incorporated from PRC §5097.98) and California Health and Safety Code, §7050.5, defines the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended on the site, or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that the County Coroner or County-approved Coroner represented be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the NAHC within 24 hours. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work for means of treating, with appropriate dignity, the human remains, and any associated grave goods as provided in California PRC §5097.98 (14 CCR 15064.5(e)) (State of California 2021).

#### 2.3 Local

#### **Tulare County**

Chapter 8.6 of the Tulare County General Plan of 2012 promotes the preservation of cultural and historic resources through managing and protecting sites of cultural and archeological importance for the benefit of present and future generations (County of Tulare 2012). Some of the measures implemented by the County are:

#### ERM-6.1 Evaluation of Cultural and Archaeological Resources

The County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards.

#### **ERM-6.2 Protection of Resources with Potential State or Federal Designations**

The County shall protect cultural and archaeological sites with demonstrated 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 as determined by a qualified archaeological professional.

#### **ERM-6.3** 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. Development can be permitted 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.

#### **ERM-6.4 Mitigation**

If preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.

#### **ERM-6.5 Cultural Resources Education Programs**

The County should support local, State, and national education programs on cultural and archaeological resources.

#### **ERM-6.6 Historic Structures and Sites**

The County shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites, and parks. 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 Buildings.

#### **ERM-6.7 Cooperation of Property Owners**

The County should 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.

#### **ERM-6.8 Solicit Input from Local Native Americans**

The County shall continue to 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.

#### **ERM-6.9 Confidentiality of Archaeological Sites**

The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

#### **ERM-6.10 Grading Cultural Resources Sites**

The County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq..

#### City of Visalia

Under Chapter 3, the City's Role and Tools for Preservation, in the General Plan of the City of



Visalia defines a "cultural resources" as:

Chapter 3.3: Sites, structures, or any other physical evidence associated with human activity considered important to be culturally important. This includes archaeological resources and contemporary Native American resources in addition to the historic resources that are the subject of this chapter. Impacts of development on cultural resources of all kinds must be avoided to the greatest extent possible, as described by policies in Chapter 6: Open Space and Conservation.

Under Chapter 6, Open Space and Conservation, within the General Plan of the City of Visalia the following policies are outlined for the preservation of cultural resources:

**Chapter 6.5: OSC-P-39** Establish requirements to avoid potential impacts to sites suspected of being archeologically, paleontologically, or historically significant or of concern, by:

- Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive.
- Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA).
- Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity.
- Implementing appropriate measures to avoid the identified impacts, as conditions of project approval.

In the event that previously unidentified historical, archaeological, or paleontological resources are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected. A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures, or appropriate mitigation should be completed, according to CEQA Guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archaeological Resource Management Reports that will be used as guidelines. (City of Visalia 2014).

#### 3.0 SETTING

This section of the report summarizes information regarding the physical and cultural setting of the Project area, including prehistoric, ethnographic, and historic contents of the general area. Several factors; including topography, biological resources, and available water sources; affect the nature and distribution of the cultural periods of activity of an area. This background provides a context for understanding the nature of the cultural resources identified within the project's region.



# 3.1 Environmental Setting

The Project area is located in west Tulare County, approximately 3.8 miles north-northwest of Tulare, California within the San Joaquin Valley. The San Joaquin Valley is a long, narrow, northwest-trending, alluvial valley that lies between the Sierra Nevada Range to the east, and the Coast Ranges to the west (Wagner, 2002). The region was historically covered with native annual and perennial grasses including San Joaquin saltbush, valley oak savanna, riparian forest, and tule marsh (McNab and Avers, 1996; Munz and Keck, 1973). The climate consists of hot, dry summers with cool, moist winters that provide the best climate for the neighboring pomegranate and citrus orchards and vineyards.

The Project area is best characterized historically as a rural ranching and agricultural region with large populations of both large and small mammals. Prehistorically, the larger mammals inhabiting the Project area would have included mule deer (*Odocoileus hemionus californicus*), black-tailed deer (*O. hemionus columbianus*), tule elk (*Cervus elaphus nannoides*), pronghorn antelope (*Antilocarpa Americana*), mountain lion (*Felis concolor*), and black bear (*Ursus americanus*) (Jameson and Peeters 1988). The small mammals that historically inhabited the Project area included rabbit (*Sylvilagus sp.*), black-tailed jackrabbit (*Lepus californicus*), western gray squirrel (*Sciurus griseus*), coyote (*Canis latrans*), and gray fox (*Urocyon cinereoargenteus*).

# 3.2 Cultural Setting

Cultural resources include prehistoric-era archaeological sites, historic-era archaeological sites, Native American traditional cultural properties, sites of religious and cultural significance, and historical buildings, structures, objects, and sites. The importance of any single cultural resource is defined by the context in which it was first created, current public opinion and modern yet evolving analysis. From the analytical perspective, temporal and geographic considerations help to define the historical context of the Project area. The importance or significance of a cultural resource is in part described by the context in which it originated or developed. National Park Service Bulletin 16a (1997) describes a historic context as "information about historic trends and properties grouped by an important theme in prehistory or history of a community, state, or the nation during a particular period of time." A context links an existing property to important historic trends, and this allows a framework for determining the significance of a property. Given this, a major goal of the historian is to determine accurate themes of analysis, a task that can only be undertaken by a thorough review of previous researchers' thoughts and ideas, as well as reviewing the literature of the resources.

In California, historians have divided the past into broad categories based on climate models, archaeological dating and written histories. Paleontologists divide time into much larger segments, with defined and named periods of time shortening in timespan as the modern era is reached. For the purposes of this analysis, these periods in history have been summarized below.



# 3.2.1 Prehistoric Setting

Present day Visalia, CA is in Central California which was home to many Native American tribes for thousands of years prior to the arrival of Spanish explorers and the installation of the Mission System. Among the numerous tribes that once lived in the area are the Bear River, Mattale, Lassick, Nogatl, Wintun, Yana, Yahi, Maidu, Wintun, Sinkyone, Wailaki, Kato, Yuki, Pomo, Lake Miwok, Wappo, Coast Miwok, Interior Miwok, Wappo, Coast Miwok, Interior Miwok, Monache, Yokuts, Costanoan, Esselen, Salinan and Tubatulabal tribes. (Native American Heritage Commission 2024).

The Natives tribes that populated the central valley were gifted craftsmen whose art of basket weaving survives too today. "In this region basketry reached the height of greatest variety. Perhaps the Pomo basket makers created the most elaborate versions of this art. Both coiled and twine type baskets were produced throughout the region. Fortunately, basket making survived the years of suppression of native arts and culture to once again become one of the most important culturally defining element for Indians in this region." (Native American Heritage Commission 2024).

# 3.2.2 Ethnographic Setting

The Project area is located within the traditional cultural territory of the Yokuts tribe. For thousands of years, Native Americans lived in what is present day Tulare County California. Among the many tribes that once inhabited the area were the Southern Valley Yokuts and the Foothills Yokuts. Each named for the geographic area they inhabited.

The Indians of the San Joaquin Valley were known as Yokuts. The word "Yokuts" means people. The Yokuts were unique among the California natives in that they were divided into true tribes. Each had a name, a language, and a territory. The Yokuts were a friendly and peaceful loving people. They were tall, strong and well built. The Yokuts lived a simple life, depending on the land for food, clothing, and shelter.

We believe the tribe along with others belonged to the first groups that settled in California. They are called the seed-gatherers because they did no farming at all in the days before Columbus. Their main food was acorns. The Yokuts also ate wild plants, roots, and berries. They hunted deer, rabbits, prairie dogs, and other small mammals and birds. They made simple clothing out of bark and grass. Their jewelry and headbands were made of seeds and feathers. The Yokuts found life in the California valleys to be pleasant and peaceful for many centuries. (Tachi Yokuts Tribe 2024).

# 3.2.3 Historic Setting

In California, the historic era is divided into three general periods: the Spanish or Mission Period



(1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present). The mission system, which ultimately established 21 missions between 1796 and 1822, consisted of missions, presidios, and pueblos, and was designed to convert the indigenous peoples of California to Christianity and assimilate them under Spanish rule (Gudde 1998).

The Spanish Period saw exploration and the establishment of the San Diego Presidio and missions at San Diego (1769) and San Luis Rey (1798), and Asistencia (chapels) to the San Diego Mission at Santa Ysabel (1818) and to the San Luis Rey Mission at Pala (1816). Horses, cattle, agricultural foods and weed seeds, and a new architectural style and method of building construction were also introduced. Spanish influence continued after 1821 when California became a part of Mexico, yet the missions continued to operate for a short time longer and laws governing the distribution of land were retained.

In 1821, Mexico won independence and control of the Spanish American colonies from Spain. Land was redistributed, and the native neophytes were freed from church jurisdiction due to the Secularization Act of 1833. During this secularization period, the Mexican authorities in Alta California made numerous large land grants on former mission properties in the area; many became private ranches, or ranchos; the vast majority were the result of land grants from the Mexican government (Robinson 1979). The Mexican Period ended in 1848 as a result of the Mexican American War.

The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, the former Mexican province of Alta California became part of the United States as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General's office.

When California became a state, the government divided California into counties. One of the largest of these was named Mariposa County and it covered the entirety of the middle of the state. In 1852, Mariposa County was divided, and the southern part was named Tulare County. Later, Tulare County was again divided, thereby creating Fresno, Kern, Kings, and Inyo counties.

Tulare County has an interesting history that dates to 1770. The first settlers to visit what is now the San Joaquin Valley came after 1800. The first settlement in Tulare County was where the old Indian trail crossed the Kaweah River, about ten miles east of Visalia.

The county is named for Tulare Lake, once the largest freshwater lake west of the Great Lakes. Drained for agricultural development, the site is now in Kings County, which was created in 1893 from the western portion of the formerly larger Tulare County.

The name Tulare is derived from the giant sedge plant called tule (too-lee), schoenoplectus acutus, in the plant family Cyperaceae, native to freshwater marshes that once lined the shores of Tulare Lake. These native grasses are ecologically important as they help buffer against weather forces and help reduce erosion along with allowing for the propagation of other plant species.



There were many marsh areas in Tulare County before land speculators drained Tulare Lake in the 20th century and settlers began cultivating the land. What was formerly Tulare Lake is dry and the agriculturally rich soil is used for farming, the total gross production value of which in 2019 was \$7,505,352,100. (County of Tulare California 2024).

#### 4.0 ARCHIVAL RECORDS SEARCH

#### 4.1 Eastern Information Center

The Project area is located in the USGS Visalia, CA 7.5' Series Quadrangle (USGS 2021). On March 1, 2024, Soar submitted a records search request to the Southern San Joaquin Valley Information Center (SSJVIC) located at the California State University, Bakersfield, CA. The records search included a 0.5-mile buffer around the Project area. The results from the records search received on March 11, 2024, indicate three (3) cultural resource studies have been conducted within the Project area (Table 1). According to the information on file, there are two (2) resources within the Project area (Table 2). These resources, however, were identified outside of the proposed 178-unit single family housing subdivision. As such, these resources will not be effected by the proposed project subdivision construction and staging activities.

Table 1. Survey Reports within the Project area

Report No.	Year	Author(s)/ Affiliation	Title
		Self, William	Class I Overview, Santa Fe Pacific Pipeline
TU-00041	1995		Partners, L.P., Proposed Concord to Colton Pipeline
			Project
TU-01190	1957	Mitchell, Annie	Jim Savage and the Tulareño Indians
	1937	R.	Jili Savage and the Tulareno mulans
TU-01659A	2009	Haley, Kathryn;	Historic Property Survey Report for Avenue 280
		ICF Jones &	Road Widening Project, Tulare County, California
		Stokes	

Table 2. Resources within the Project area

Primary #	Type	Description
P-54-005062	Building	1309 E.Caldwell Ave historic single family residence
P-54-005063	Building	1345 Caldwell Ave historic single family residence

There are four (4) recorded resources within the 0.5-mile record search radius (Table 3). There were two (2) reports identified within a 0.5-mile radius of the Project area (Table 4).



Table 3. Survey Reports within 0.5 Mile of the Project area

Report No.	Year	Author(s)/ Affiliation	Title
TU-00103	1997	Wickstrom, Brian and Anderson, Emily; KEA Environmental, Inc.	Cultural Resource Survey for the Selma to Bakersfield Fiberoptic Line, Southern San Joaquin Valley, California
TU-01501	2010	O'Connell, Keith A.; URS Corporation	Verizon Cellular Communications Tower Site - East Caldwell 1748 East Caldwell Avenue (APN: 126-120-064) Visalia, California 93292

Table 4. Resources within 0.5 Mile of the Project area

Primary #	Type	Description
P-54-005061	Building	841 E.Caldwell Ave historic single family residence
P-54-005064	Building	1744 and 1748 Caldwell Ave historic single family residence with associated out buildings and scrap yard
P-54-005065	Building	1922 E.Caldwell Ave historic single family residence
P-54-005296	Structure	Tulare Irrigation District Canal

There are no recorded cultural resources within the Project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

# 4.2 Sacred Lands File & Native American Contacts List Request

The California Native American Heritage Commission (NAHC) was contacted on March 1, 2024, to conduct a Sacred Lands File (SLF) search, and to obtain a list of tribes culturally and geographically affiliated with the Project area (Appendix B). On March 11, 2024, the NAHC indicated there are no Native American traditional cultural places or sacred sites within or near the Project area. The NAHC provided a list of five (5) Tulare County Native American groups and individuals affiliated with the local tribes. On March 14, 2024. Heather Froshour sent letters to all individuals describing the location, and the nature of the project. In each letter, Heather Froshour included a request for information regarding prehistoric, historic, ethnographic land use, as well as contemporary Native American values.

Soar Environmental did not receive comments from the Tulare County Native American groups or affiliated individuals regarding the proposed housing subdivision development at the project location.



#### 4.3 HISTORIC AERIAL IMAGE REVIEW

A review of the historic aerial imagery reveals two (2) structures in the far northwest corner of the Project area as early as 1956, with the rest of the Project area being used for agricultural crops. Roadways running along the north, E. Caldwell Ave/Ave 280, and west edge of the Project area are also visible at this time, with an irrigation ditch running along the east edge to south tip. By the 1969 historic aerial an additional structure to the far northeast corner is visible. All three (3) structures and roadways are still present today (Nationwide Environmental Title Research, LLC 2020). Although these structures are historic, and are encompassed by the initial Project area polygon, none of the structures are located within the 178-unit housing subdivision planning map and thus will not be disturbed by construction and grading activities.

#### 5.0 PREVIOUS DISTURBANCES IN THE PROJECT AREA

The Project area is located within an area that has undergone anthropogenic modifications, primarily from activities related to residential development and agricultural activities. Likewise, the surface of the Project area has undergone surface grading and intense subsurface disturbance from previous residential construction and agricultural plowing. In some cases, the graded surface could exceed 24 inches (60 centimeters). This disturbance could exceed 5 feet (1.524 meters) in some areas.

In summary, the following previous disturbances have occurred within or immediately adjacent to the Project area:

- Surface grading and subsurface disturbance for main building, outbuilding construction of residential buildings (3) and one paved road (Ave 280).
- Surface grading and maintenance of current and historic roads
- Agriculture (Plum Orchard).
- Direct feed irrigation.
- Agriculture.

#### 6.0 FIELD SURVEY METHODS AND RESULTS

The basic criteria for determining the presence of prehistoric and historic cultural resources in local urban and rural settings generally includes:

- Presence of flaking debris derived from stone tool manufacturing
- Presence of marine shell and/or other faunal remains



- Occurrence of material culture artifacts
- Surface expressions of cultural features
- Bedrock mortars and related milling features/components
- Soil discolorations or atypical soil manifestations
- Stone/adobe features associated with structural remains
- Diagnostic ceramics derived from Spanish, Mexican, or later periods
- Historic iron and glassware, cans, privy pits, domestic occupational debris

#### This investigation included the following tasks:

- Review of regional history and previous cultural resource sites and studies within the Project area and the vicinity.
- Examination of archival topographic maps and aerial photographs for the Project area and the general vicinity.
- Request for a California Historical Resources Information System data request of the Project area and 0.50-mile radius through the Southern San Joaquin Valley Information Center
- Request for a NAHC Sacred Lands File Search for the Project area and 0.50-mile radius. Contact with Tribal groups and individuals as named by the NAHC.
- Evaluate the potential for the proposed Project to result in significant impacts to cultural resources including the potential to impact buried cultural resources with no surface expression.
- Intensive Phase 1 pedestrian survey with transect intervals of 49.21 feet (15 meters) of the Project area.
- Develop recommendations associated with impacts to cultural resources following the guidelines as outlined in the Regulatory Setting.

Ms. Froshour and Mr. Rowland conducted the field survey of the Project area on March 12, 2024. The Project area was examined by systematic pedestrian inspection of the ground surface. Transect intervals varied from 49.21 feet (15 meters). Disturbances immediately adjacent to the Project area were also examined for primary and secondary surface archaeological indicators.



The approximately 43.6-acre Project area consists mostly of parcels 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 with agricultural industry as its primary use (Figures 1-3). The surface visibility of the Project area, defined as the approximate percentage of native soils visible during field survey of a given project component, was estimated at 80-90% within the Project area. The ground surface was covered by approximately 43.6-acres of non-native grasses and fruit bearing plum trees.

In summary, no *in situ* cultural resources, or isolate materials potentially derived from primary or secondary archaeological contexts, were observed on the surface of the Project area.

#### 7.0 RECOMMENDED ACTIONS AND MITIGATION MEASURES

There appears to be a low possibility for subsurface cultural resources in the Project area, based on the results of the archival research, and the fact that no known resource have been detected during previous disturbances within the construction footprint of the Project area. There are no recorded cultural resources within the 0.5-mile buffer radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks. No site testing or mitigation measures are recommended or required, unless previously undiscovered cultural resources are detected during construction.

A potential always exists to encounter previously undetected cultural resources. If cultural materials (prehistoric and/or historic artifacts) are detected during the course of ground disturbances associated with this project, all work in the immediate area of the find shall be halted until a qualified archaeologist can inventory and assess the significance of the find(s). At that point, the resources shall be evaluated in accordance with the procedures set forth in the California Environmental Quality Act (CEQA) 21083.2, sections 15064.5 and 15126.4, and the criteria regarding resource eligibility to the California Register of Historic Resources (CRHR).

If a resource cannot be avoided, then the resource must be examined vis-à-vis the provisions in the County Guidelines, and CEQA Sections 15064.5 and 15126.4 and the eligibility criteria as an "important" or "unique archaeological resource", as appropriate. In many cases, determination of a resource's eligibility can only be made through extensive research and archaeological testing.

Human remains are addressed by State of California Health and Safety Code Section 7050.5. This code section states that no further disturbance shall occur until the County Coroner has made a determination of the origin and disposition of the remains, pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric/ethnohistoric Native American remains, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 24 hours of notification, and may potentially recommend scientific removal, reburial, nondestructive analysis of human remains, and/or specific treatment of associated burial goods.



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# **FIGURES**



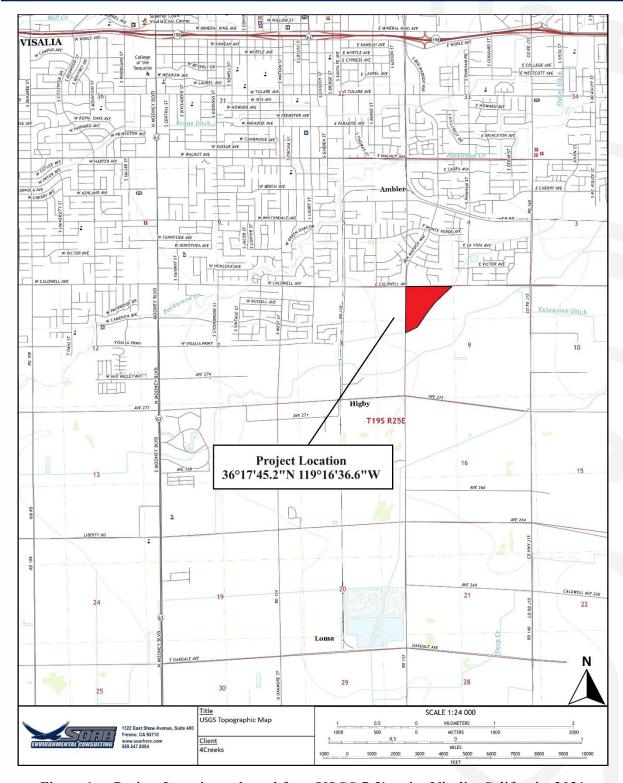


Figure 1— Project Location, adapted from USGS 7.5' series Visalia, California, 2021



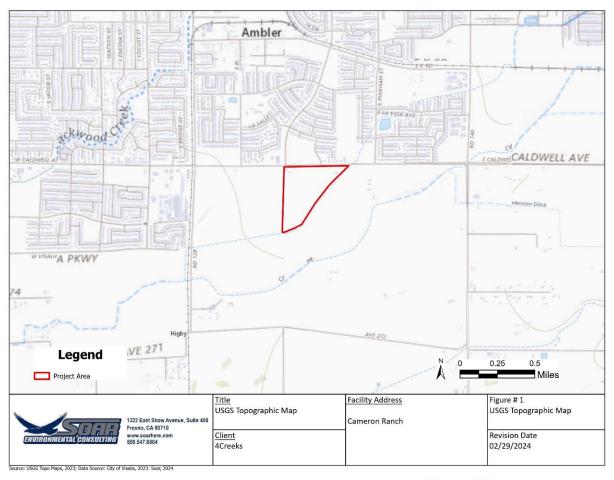


Figure 2— Project Boundary Map adapted from USGS 7.5' series Visalia, California, 2003

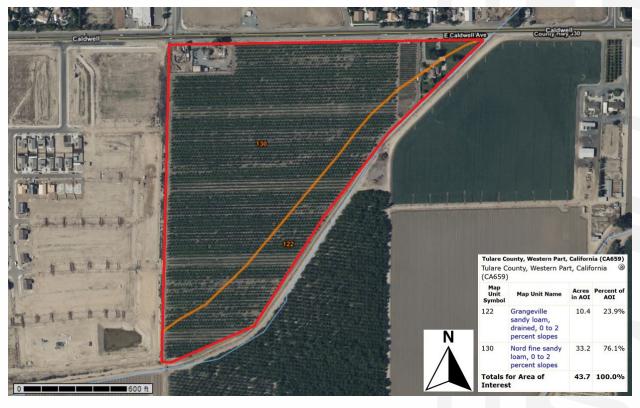


Figure 3— Soil Types Occurring in the Project area

1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710 www.soarhere.com • 559.547.8884

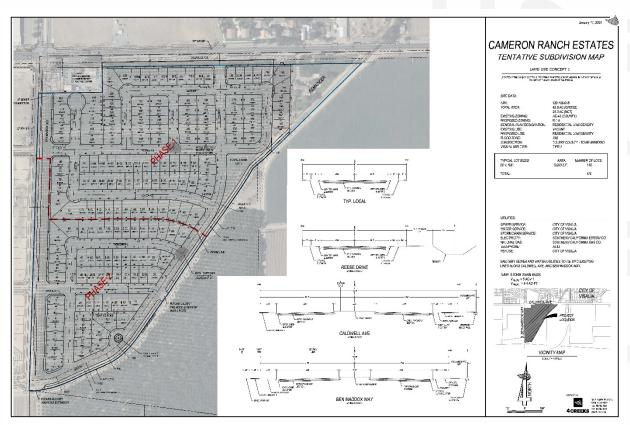


Figure 4— Proposed Site Plan





Figure 5— Overview of dirt road west of 1345 E Caldwell Ave, facing south





Figure 6— North edge of Tulare irrigation ditch toward agricultural field, facing southwest





Figure 7— Overview from east edge of Project area, facing west





Figure 8— Overview from south edge of Project area, facing north





Figure 9— Metal bridge between properties outside south edge of Project area, facing east





Figure 10— Overview from south-southwest of Project area, facing northeast





Figure 11— Overview from west edge of Project area, facing east





Figure 12— Overview of northwest bend in orchard, facing north





Figure 13— Overview from northwest corner of Project area, facing south



### APPENDIX A

Southern San Joaquin Valley Information Center Records Search



#### **Cultural Resources Records Search Request**

Friday, March 1, 2024

Southern San Joaquin Valley Information Center California State University Bakersfield Mail Stop: 72DOB 9001 Stockdale Highway Bakersfield, CA 93311-1022

Tel: 661.654.2289 ssjvic@csub.edu

RE: Phase I CEQA Cultural Resource Assessment Report for proposed housing development bounded by E Caldwell Ave and the Tulare Irrigation Ditch, Visalia, CA, 93292. APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007.

Dear Celeste,

Please find attached one project location map, shapefiles, and the SSJVIC/CHRIS Data Request Form for the proposed housing development project in Visalia, California. The proposed project is situated on the Visalia, California (2021), USGS 7.5' Series Quadrangle, T 19S, R 25E, S 9. The 43.6-acre project area is located on APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 and is bounded by E. Caldwell Ave and the Tulare Irrigation Ditch in Visalia, California. The project is for a proposed 178 lot housing development with a center at approximately WGS 84 11N 295548 E 4019172 N.

Please conduct a normal rate records search, including no more than a 0.50-mile radius buffer, of the project location illustrated on the attached map. Please provide the following information:

- PDF of all site records and associated survey reports (Note: PDF/photocopy only those site reports that appear to be pertinent to the immediate project location and search area; surveys and other site/resources can be listed, with full reports requested later if necessary).
- A list of all previous sites and surveys within the search area.
- A confirmation of any sites, structures, or linear features on local, state, and/or federal registers/lists in the project location or the 0.50-mile search area that are not yet mapped on the GIS.

If the normal records search costs will exceed \$500.00, or if you have any questions or comments, please e-mail me at <a href="https://hfroshour@soarhere.com">hfroshour@soarhere.com</a>. Please contact me as soon as possible if there will be any delays with the records search, as the client may request an expedited search. Please email the encrypted search results in PDF format to: <a href="https://hfroshour@soarhere.com">hfroshour@soarhere.com</a>.

Many thanks in advance for your assistance with this project.

Most Sincerely,

Heather Froshour, M.A., R.P.A.

Sr. Archaeologist

Soar Environmental Consulting, Inc.

207.232.8912

### California Historical Resources Information System

### **CHRIS Data Request Form**

ACCESS AND USE AGREEMENT NO.:	IC FIL	_E NO.:
То:		Information Center
Print Name:		Date:
Affiliation:		
Address:		
City:	State:	Zip:
Phone: Fax:	Email:	
Billing Address (if different than above):		
Billing Email:		Billing Phone:
Project Name / Reference:		
Project Street Address:		
County or Counties:		
Township/Range/UTMs:		
USGS 7.5' Quad(s):		
PRIORITY RESPONSE (Additional Fee): yes / r	าด	
TOTAL FEE NOT TO EXCEED: \$ (If blank, the Information Center will contact you if t	he fee is expected to e	exceed \$1,000.00)
Special Instructions:		
Information Center Use Only		
Date of CHRIS Data Provided for this Request:		
Confidential Data Included in Response: yes / n	0	
Notes:		

#### **California Historical Resources Information System**

#### **CHRIS Data Request Form**

Mark the request form as needed. Attach a PDF of your project area (with the radius if applicable) mapped on a 7.5' USGS topographic quadrangle to scale 1:24000 ratio 1:1 neither enlarged nor reduced and include a shapefile of your project area, if available. Shapefiles are the current CHRIS standard for submitting digital spatial data for your project area or radius. **Check with the appropriate IC for current availability of digital data products.** 

- Documents will be provided in PDF format. Paper copies will only be provided if PDFs are not available
  at the time of the request or under specially arranged circumstances.
- Location information will be provided as a digital map product (Custom Maps or GIS data) unless the area has not yet been digitized. In such circumstances, the IC may provide hand drawn maps.
- In addition to the \$150/hr. staff time fee, client will be charged the Custom Map fee when GIS is required to complete the request [e.g., a map printout or map image/PDF is requested and no GIS Data is requested, or an electronic product is requested (derived from GIS data) but no mapping is requested].

For product fees, see the CHRIS IC Fee Structure on the OHP website.

	•						
1.	Map Format Choice:						
	Select One: Custom GIS Maps ☐ GIS D	ata 🗆	Custom C	SIS Maps <u>and</u>	<u>I</u> GIS Data D	] No Ma	aps □
	Any selection below le	eft unma	arked will	be considere	ed a "no. "		
	Location Information:						
			Within p	roject area	Within _		radius
	ARCHAEOLOGICAL Resource Locations <sup>1</sup>		yes	/ no	yes	/ no	
	<b>NON-ARCHAEOLOGICAL Resource Locatio</b>	ns	ves	/ no	yes	/ no	
	Report Locations <sup>1</sup>		yes	/ no	yes	/ no	
	"Other" Report Locations <sup>2</sup>		yes	/ no	yes	/ no	
3.	Database Information:						
ა.	(contact the IC for product examples, or visit the	SS IVIO	website f	or evamples)			
	(contact the 10 for product examples, or visit the	<u> </u>					radius
	ARCHAEOLOGICAL Resource Database <sup>1</sup>		vvitnin pi	roject area	Within _		radius
	List (PDF format)		yes	/ no	yes	/ no	
	Detail (PDF format)		yes	/ no	yes	/ no	
	Excel Spreadsheet		yes	/ no	yes	/ no	
	NON-ARCHAEOLOGICAL Resource Database	se					
	List (PDF format)		yes	/ no	yes	/ no	
	Detail (PDF format)		yes	/ no	yes	/ no	
	Excel Spreadsheet		yes	/ no	yes	/ no	
	Report Database <sup>1</sup>						
	List (PDF format)		yes	/ no	yes	/ no	
	Detail (PDF format)		yes	/ no	yes	/ no	
	Excel Spreadsheet		yes	/ no	yes	/ no	
	Include "Other" Reports <sup>2</sup>		yes	/ no	yes	/ no	
4.	Document PDFs (paper copy only upon reque	est):					
			Within p	roject area	Within _		radius
	ARCHAEOLOGICAL Resource Records <sup>1</sup>		yes	/ no	yes	/ no	
	NON-ARCHAEOLOGICAL Resource Record	ds	yes	/ no	yes	/ no	
	Reports <sup>1</sup>		yes	/ no	yes	/ no	
	"Other" Reports <sup>2</sup>		yes	/ no	yes	/ no	

#### **California Historical Resources Information System**

#### **CHRIS Data Request Form**

#### 5. Eligibility Listings and Documentation:

	Within p	roject area	Within _		radius
OHP Built Environment Resources Directory <sup>3</sup> : Directory listing only (Excel format) Associated documentation <sup>4</sup>	yes yes	/ no / no	yes yes	/ no / no	
OHP Archaeological Resources Directory <sup>1,5</sup> : Directory listing only (Excel format) Associated documentation <sup>4</sup>	yes yes	/ no / no	yes yes	/ no / no	
California Inventory of Historic Resources (1976): Directory listing only (PDF format) Associated documentation <sup>4</sup>	yes yes	/ no / no	yes yes	/ no / no	

#### 6. Additional Information:

The following sources of information may be available through the Information Center. However, several of these sources are now available on the <a href="OHP website">OHP website</a> and can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through these sources. Indicate below if the Information Center should review and provide documentation (if available) of any of the following sources as part of this request.

Caltrans Bridge Survey	yes	/ no
Ethnographic Information	yes	/ no
Historical Literature	yes	/ no
Historical Maps	yes	/ no
Local Inventories	yes	/ no
GLO and/or Rancho Plat Maps	yes	/ no
Shipwreck Inventory	yes	/ no
Soil Survey Maps	yes	/ no

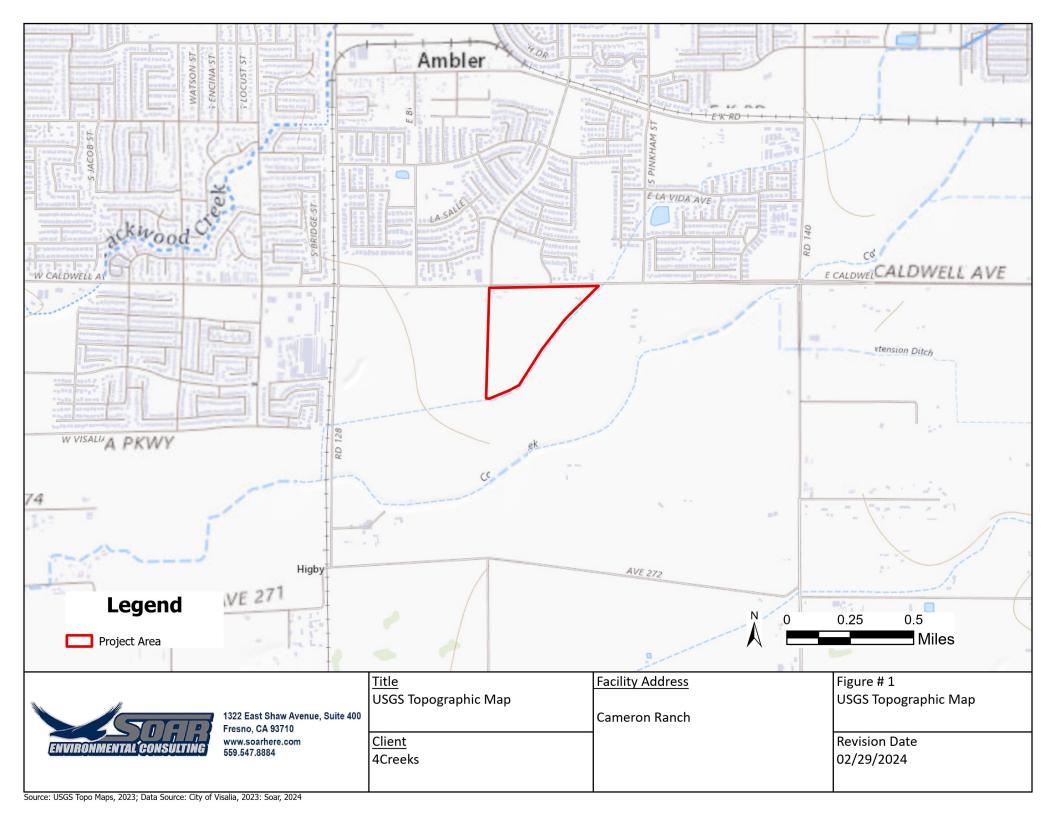
<sup>&</sup>lt;sup>1</sup> In order to receive archaeological information, requestor must meet qualifications as specified in Section III of the current version of the California Historical Resources Information System Information Center Rules of Operation Manual and be identified as an Authorized User or Conditional User under an active CHRIS Access and Use Agreement.

<sup>&</sup>lt;sup>2</sup> "Other" Reports GIS layer consists of report study areas for which the report content is almost entirely non-fieldwork related (e.g., local/regional history, or overview) and/or for which the presentation of the study area boundary may or may not add value to a record search.

<sup>&</sup>lt;sup>3</sup> Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Includes, but not limited to, information regarding National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys. Previously known as the HRI and then as the HPD, it is now known as the Built Environment Resources Directory (BERD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.

<sup>&</sup>lt;sup>4</sup> Associated documentation will vary by resource. Contact the IC for further details.

<sup>&</sup>lt;sup>5</sup> Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Previously known as the Archaeological Determinations of Eligibility, now it is known as the Archaeological Resources Directory (ARD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.







Fresno Kern Kings Madera Tulare Southern San Joaquin Valley Information Center California State University, Bakersfield Mail Stop: 72 DOB

Mail Stop: 72 DOB 9001 Stockdale Highway Bakersfield, California 93311-1022 (661) 654-2289

E-mail: ssjvic@csub.edu Website: www.csub.edu/ssjvic

3/11/2024

Heather Froshour Soar Environmental Consulting 1322 East Shaw Ave., Suite 400 Fresno, CA 93710

Re: Phase I Cultural Resources Assessment Report Cameron Ranch

Records Search File No.: 24-101

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on Visalia USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ⊠ custom GIS maps □ GIS data

Resources within project area:	P-54-005062, 005063
Resources within 0.5 mile radius:	P-54-005061, 005064, 005065, 005296
Reports within project area:	TU-00041, 01190, 01659
Reports within 0.5 mile radius:	TU-00103, 01501

Resource Database Printout (list):	oxtimes enclosed	$\square$ not requested	$\square$ nothing listed
Resource Database Printout (details):	$\square$ enclosed	$\square$ not requested	$\square$ nothing listed
Resource Digital Database Records:	$\square$ enclosed	$oxed{\boxtimes}$ not requested	$\square$ nothing listed
Report Database Printout (list):	oxtimes enclosed	$\square$ not requested	$\square$ nothing listed
Report Database Printout (details):	$\square$ enclosed	$oxed{\boxtimes}$ not requested	$\square$ nothing listed
Report Digital Database Records:	$\square$ enclosed	$oxed{\boxtimes}$ not requested	$\square$ nothing listed
Resource Record Copies:	oxtimes enclosed	$\square$ not requested	$\square$ nothing listed
Report Copies:	⊠ enclosed	$\square$ not requested	$\square$ nothing listed
OHP Built Environment Resources Directory:	☐ enclosed	☐ not requested	☑ nothing listed
Archaeological Determinations of Eligibility:	$\square$ enclosed	$\square$ not requested	□ nothing listed
CA Inventory of Historic Resources (1976):	□ enclosed	☐ not requested	□ nothing listed

<u>Caltrans Bridge Survey:</u> 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

<u>Historical Literature:</u> Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see

http://historicalmaps.arcgis.com/usgs/

<u>Local Inventories:</u> Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see

http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or

http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see

https://www.slc.ca.gov/shipwrecks/

Soil Survey Maps: Not available at SSJVIC; please see

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Jeremy E David

Assistant Coordinator

### **Resource List**

#### SSJVIC Record Search 24-101

Primary No.	Trinomial	Other IDs	Туре	Age	Attribute codes	Recorded by	Reports
P-54-005061		Resource Name - 841 E. Caldwell Avenue	Building	Historic	HP02	2008 (Kathryn Haley, ICF Jones & Stokes)	TU-01659
P-54-005062		Resource Name - 1309 E. Caldwell Ave	Building	Historic	HP02	2008 (Kathryn Haley, ICF Jones & Stokes)	TU-01659
P-54-005063		Resource Name - 1345 Caldwell Avenue	Building	Historic	HP02; HP04	2008 (Kathryn Haley, ICF Jones & Stokes)	TU-01659
P-54-005064		Resource Name - 1744 and 1748 Caldwell Avenue	Building	Historic	HP02; HP08	2008 (Kathryn Haley, ICF Jones & Stokes)	TU-01659
P-54-005065		Resource Name - 1922 E. Caldwell Avenue	Building	Historic	HP02	2008 (Kathryn Haley, ICF Jones & Stokes)	TU-01659
P-54-005296	CA-TUL-003103H	Resource Name - Tulare Irrigation District Canal; Resource Name - CWA20-221-1; SB-97-H1; SB-97-H2; SB-97-H3; Resource Name - Old 99 Ditch of the Tulare Irrigation District; Resource Name - North Branch of the Kaweah Canal; Resource Name - Main Canal, Section 29	Structure	Historic	AH06; HP20	1997 (Emily Anderson, David Livingstone, KEA Environment); 1997 (Emily Adnerson, David Livingstone, KEA Environment); 1997 (Emily Anderson, David Livingstone, KEA Environment); 2007 (Matthew Armstrong, Randy Ottenhoff, Pacific Legacy, Inc.); 2009 (Rebecca S. Orfila, RSO Consulting); 2016 (Alberto Foglia and Annemarie Cox, PanGIS, Inc.); 2017 (Randy Baloian, Applied EarthWorks, Inc); 2022 (Karana Hattersley-Drayton, Taylored Archaeology)	TU-01837, TU-01936

Page 1 of 1 SSJVIC 3/6/2024 9:28:25 AM

### **Report List**

#### SSJVIC Record Search 24-101

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
TU-00041	BLM - Permit No. CA- 95-01-0004; NADB-R - 1141258	1995	Self, William	Class I Overview, Santa Fe Pacific Pipeline Partners, L.P., Proposed Concord to Colton Pipeline Project	William Self Associates	
TU-00103		1997	Wickstrom, Brian and Anderson, Emily	Cultural Resource Survey for the Selma to Bakersfield Fiberoptic Line, Southern San Joaquin Valley, California	KEA Environmental, Inc.	54-003608, 54-003914, 54-003915, 54-003916, 54-003917
TU-01190		1957	Mitchell, Annie R.	Jim Savage and the Tulareño Indians	Westernlore Press	
TU-01501		2010	O'Connell, Keith A.	Verizon Cellular Communications Tower Site - East Caldwell 1748 East Caldwell Avenue (APN: 126-120-064) Visalia, California 93292	URS Corporation	
TU-01659	Agency Nbr - EA 4C1214/4C1564	2009	Haley, Kathryn	Historic Property Survey Report for Avenue 280 Road Widening Project, Tulare County, California	ICF Jones & Stokes	54-002179, 54-004887, 54-005056, 54-005057, 54-005058, 54-005059, 54-005060, 54-005061, 54-005062, 54-005063, 54-005064, 54-005066, 54-005066, 54-005066, 54-005069, 54-005070, 54-005071, 54-005072, 54-005073, 54-005074, 54-005075, 54-005076, 54-005077, 54-005078, 54-005079, 54-005080, 54-005081, 54-005082, 54-005083, 54-005084, 54-005087
TU-01659A		2009	Haley, Kathryn	Avenue 280 Road Widening Project Historic Resources Evaluation Report	ICF Jones & Stokes (for Cal Trans)	
TU-01659B		2009	O'Brien, Traci	Avenue 280 Road Widening Project Archaeological Survey Report	ICF Jones & Stokes (for Cal Trans)	

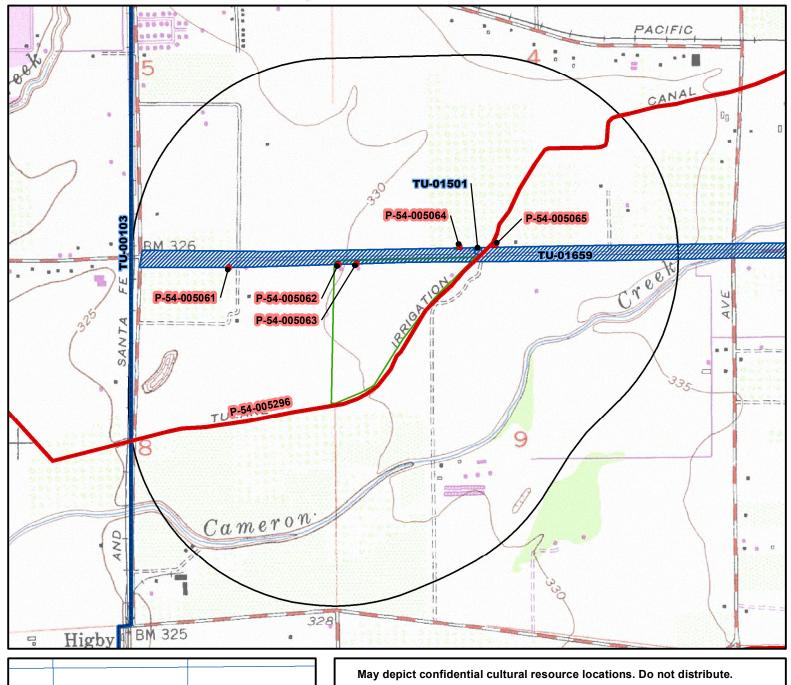
Page 1 of 1 SSJVIC 3/6/2024 9:27:40 AM

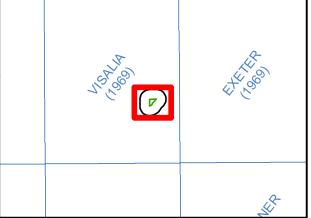
<u>California</u>
<u>Historical</u>
<u>Resources</u>
<u>Information</u>
<u>System</u>

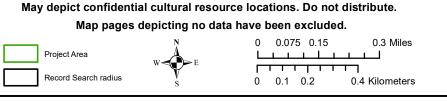
Fresno Kern Kings Madera Tulare Southern San Joaquin Valley Information Center

California State University, Bakersfield Mail Stop: 72 DOB 9001 Stockdale Highway Bakersfield, California 93311-1022

(661) 654-2289 E-mail: ssjvic@csub.edu Website: www.csub.edu/ssjvic







SSJV Information Center Record Search 24-101

Requester: Heather Froshour; Soar Environmental Consulting Inc.

Project Name: Phase I Cultural Resources Assessment Report Cameron Ranch

USGS 7.5' Quad(s): Visalia

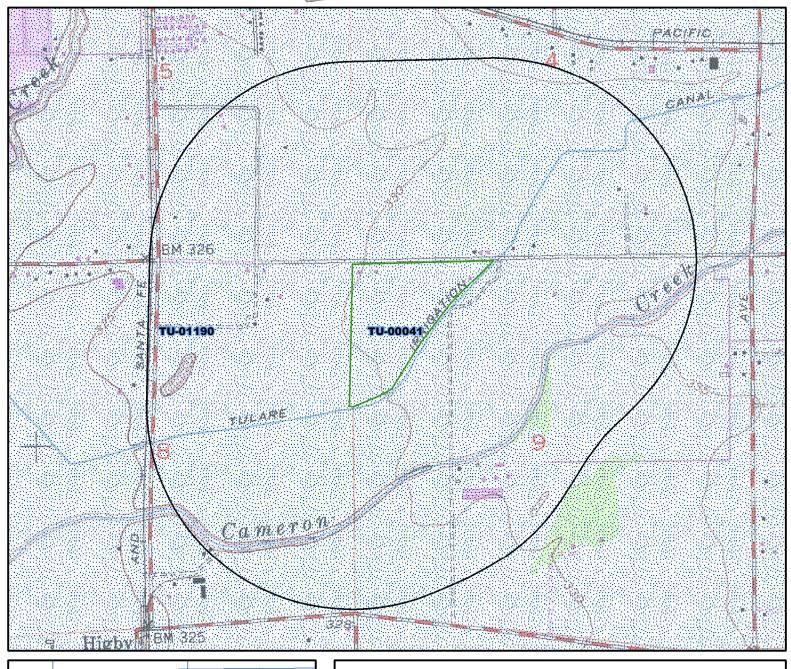
County: Tulare

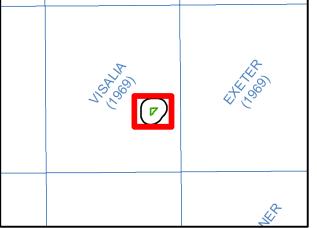
<u>California</u>
<u>Historical</u>
<u>Resources</u>
<u>Information</u>
<u>System</u>

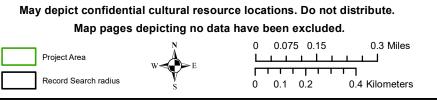


Southern San Joaquin Valley Information Center California State University, Bakersfield Mail Stop: 72 DOB 9001 Stockdale Highway Bakersfield, California 93311-1022 (661) 654-2289

E-mail: ssjvic@csub.edu Website: www.csub.edu/ssjvic







#### "Other" Reports

SSJV Information Center Record Search 24-101

Requester: Heather Froshour; Soar Environmental Consulting Inc.

Project Name: Phase I Cultural Resources Assessment Report Cameron Ranch

USGS 7.5' Quad(s): Visalia

County: Tulare



### **APPENDIX B**

Sacred Lands File & Native American Contacts List Request



#### Sacred Lands File & Native American Contacts List Request

Friday, March 1, 2024

Native American Heritage Commission 1550 Harbor Blvd., Suite 100 West Sacramento, CA 95691 Tel: 916.373.3710

Fax: 916.373.5471 nahc@nahc.ca.gov

RE: Phase I CEQA Cultural Resource Assessment Report for proposed housing development bounded by E Caldwell Ave and the Tulare Irrigation Ditch, Visalia, CA, 93292. APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007.

Dear Sir/Madam,

Please find attached one project location map, Sacred Lands File NA Contact Form, and Local Government Tribal Consultation List Request for the proposed housing development project in Visalia, California. The proposed project is situated on the Visalia, California (2021), USGS 7.5' Series Quadrangle, T 19S, R 25E, S 9. The 43.6-acre project area is located on APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 and is bounded by E. Caldwell Ave and the Tulare Irrigation Ditch in Visalia, California. The project is for a proposed 178 lot housing development with a center at approximately WGS 84 11N 295548 E 4019172 N.

This letter is intended to inform you of the project and to help ensure compliance with the California Environmental Quality Act (CEQA). As part of the Cultural Resources Study for the project, we are requesting your insights on potential Native American cultural properties and resources in and/or near the project.

Please respond at your earliest convenience if you have any information to consider for this study.

Also, we would greatly appreciate if you could review the attached map and indicate to us if there are any concerns you might have or input regarding potentially sensitive cultural heritage values in the project area and vicinity.

Feel free to contact me by email at <a href="https://h

Most Sincerely,

Heather Froshour, M.A., R.P.A.

Sr. Archaeologist

Soar Environmental Consulting, Inc.

207.232.8912

### Sacred Lands File & Native American Contacts List Request

#### **Native American Heritage Commission**

1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691 916-373-3710 916-373-5471 – Fax nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Phase I Cultural Resources Assessment Report Came	ron Ranch
County: Tulare	
USGS Quadrangle Name: Visalia, California, Tulare County	, 7.5' Series
Township: 19S Range: 25E Section(s): 9	
Company/Firm/Agency: Soar Environmental Consulting In	С.
Street Address: 1322 East Shaw Ave. Suite 400	
City: Fresno	Zip: 93710
Phone: (559)547-8884	
Fax:	
Email: hfroshour@soarhere.com	

### **Project Description:**

The 43.6-acre project area is located on APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 and is bounded by E. Caldwell Ave and the Tulare Irrigation Ditch in Visalia, California. The project is for a proposed 178 lot housing development with a center at approximately WGS 84 11N 295548 E 4019172 N.

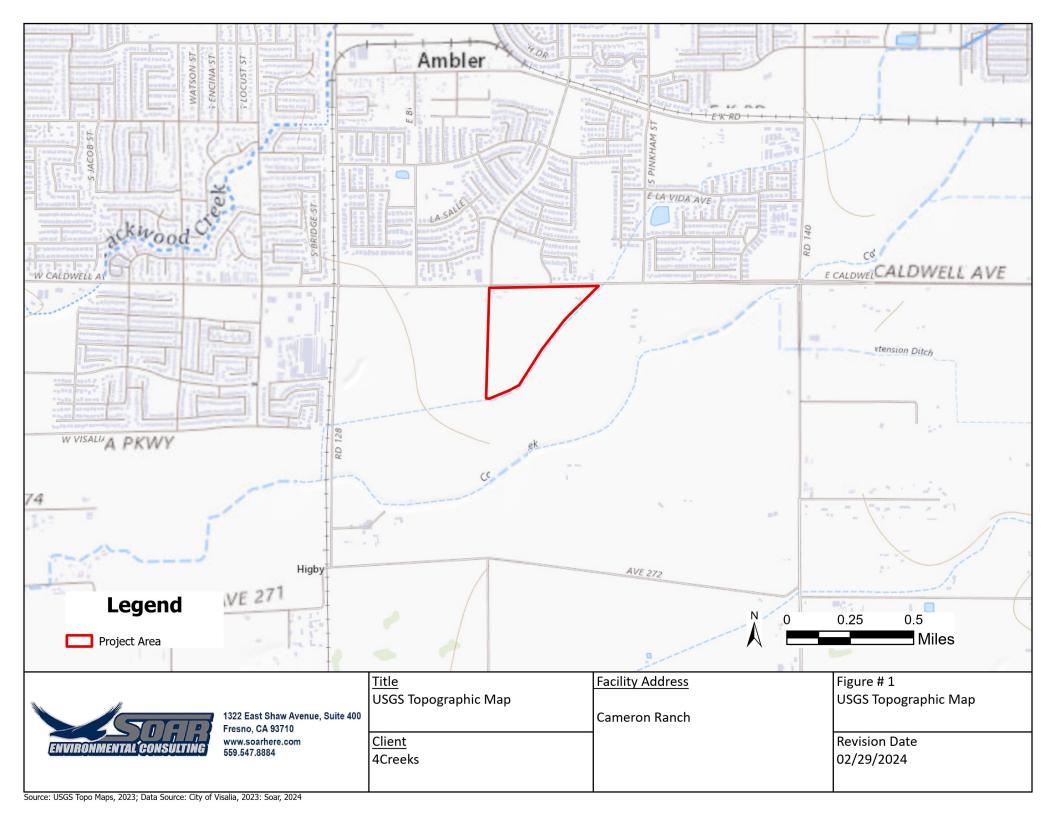
### **Local Government Tribal Consultation List Request**

### **Native American Heritage Commission**

1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691 916-373-3710 916-373-5471 – Fax nahc@nahc.ca.gov

General Plan (SB 18) - Per Local Action Type:	Government Code § 65352.3.	
	an General Plan Element	General Plan Amendment
Specific Pla	an Specific Plan Amendment	Pre-planning Outreach Activi
red Information		
Project Title:		
Local Government/Lead Agend	cy:	
Contact Person:		
Street Address:		
Phone:	Fax:	
Email:		
Specific Area Subject to Propo		
County:	City/Comm	nunity:
Project Description:		
•		
ional Request		
☐ Sacred Lands File Search	- Required Information:	

Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section(s): \_\_\_\_\_





March 11, 2024

Heather Froshour Soar Environmental Consulting Inc.

Via Email to: hfroshour@soarhere.com

CHAIRPERSON

Reginald Pagaling

Chumash

VICE-CHAIRPERSON **Buffy McQuillen**Yokayo Pomo, Yuki,
Nomlaki

SECRETARY

Sara Dutschke

Miwok

Parliamentarian **Wayne Nelson** Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER **Stanley Rodriguez** *Kumeyaay* 

COMMISSIONER **Laurena Bolden** Serrano

COMMISSIONER **Reid Milanovich**Cahuilla

COMMISSIONER **Vacant** 

EXECUTIVE SECRETARY
Raymond C.
Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS 1550 Harbor Boulevard Suite 100 West Sacramento, California 95691 (916) 373-3710 nahc@nahc.ca.gov NAHC.ca.gov Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Phase I Cultural Resources Assessment Report Cameron Ranch Project, Tulare County

NATIVE AMERICAN HERITAGE COMMISSION

To Whom It May Concern:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
- 2. The results of any archaeological inventory survey that was conducted, including:
  - Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

- 3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.
- 4. Any ethnographic studies conducted for any area including all or part of the APE; and
- 5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Murphy.Donahue@NAHC.ca.gov

Sincerely,

Murphy Donahue

Cultural Resources Analyst

Murphy Donahus

**Attachment** 

#### Native American Heritage Commission Native American Contact List Tulare County 3/11/2024

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Tulare	Santa Rosa Rancheria Tachi Yokut Tribe		Shana Powers, THPO	P.O. Box 8 Lemoore, CA, 93245	(559) 423-3900		spowers@tachi-yokut-nsn.gov	Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
Ī	Santa Rosa Rancheria Tachi Yokut Tribe	F	Samantha McCarty, Cultural Specialist II	P.O. Box 8 Lemoore, CA, 93245	(559) 633-3440		smccarty@tachi-yokut-nsn.gov	Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
Ì	Santa Rosa Rancheria Tachi Yokut Tribe	F	Nichole Escalon, Cultural Specialist I	P.O. Box 8 Lemoore, CA, 93245	(559) 924-1278		nescalone@tachi-yokut-nsn.gov	Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
Ì	Tule River Indian Tribe	F	Neil Peyron, Chairperson	P.O. Box 589 Porterville, CA, 93258	(559) 781-4271	(559) 781-4610	neil.peyron@tulerivertribe- nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Maripos a,Merced,Monterey,Sacramento,San	
	Wuksachi Indian Tribe/Eshom Valley Band	N	Kenneth Woodrow, Chairperson	1179 Rock Haven Ct. Salinas, CA, 93906	(831) 443-9702		kwood8934@aol.com	Foothill Yokut Mono	Alameda, Calaveras, Contra Costa, Fresno, Inyo, Kings, Madera, Marin, Maripo	6/19/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code and section 5097.98 of the Public Resources Code.

Record: PROJ-2024-001375 Report Type: AB52 GIS Counties: Tulare NAHC Group: All

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Phase I Cultural Resources Assessment Report Cameron Ranch Project, Tulare County.



Thursday, March 14, 2024

Santa Rosa Rancheria Tachi Yokut Tribe P.O. Box 8 Lemoore, CA, 93245 Phone: (559) 924-1278

nescalone@tachi-yokut-nsn.gov

RE: Proposed housing development bounded by E Caldwell Ave and the Tulare Irrigation Ditch, Visalia, CA, 93292. APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007.

Dear Nichole Escalon, Cultural Specialist l,

Below, please find a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

The proposed project is situated on the Visalia, California (2021), USGS 7.5' Series Quadrangle, T 19S, R 25E, S 9. The 43.6-acre project area is located on APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007 and is bounded by E. Caldwell Ave and the Tulare Irrigation Ditch in Visalia, California. The project is for a proposed 178 lot housing development with a center at approximately WGS 84 11N 295548 E 4019172 N.

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An important element of a Phase 1 study is to identify sites, resources, or locations of cultural importance to the local Native American community. As part of the process, Soar Environmental contacted the Native American Heritage Commission (NAHC) on March 1, 2024. On March 11, 2024, Soar received a response letter from the NAHC indicating **negative results** of the Sacred Lands File search. Furthermore, the NAHC identified your organization as a point of contact regarding potentially known recorded sites or cultural resources within Tulare County.

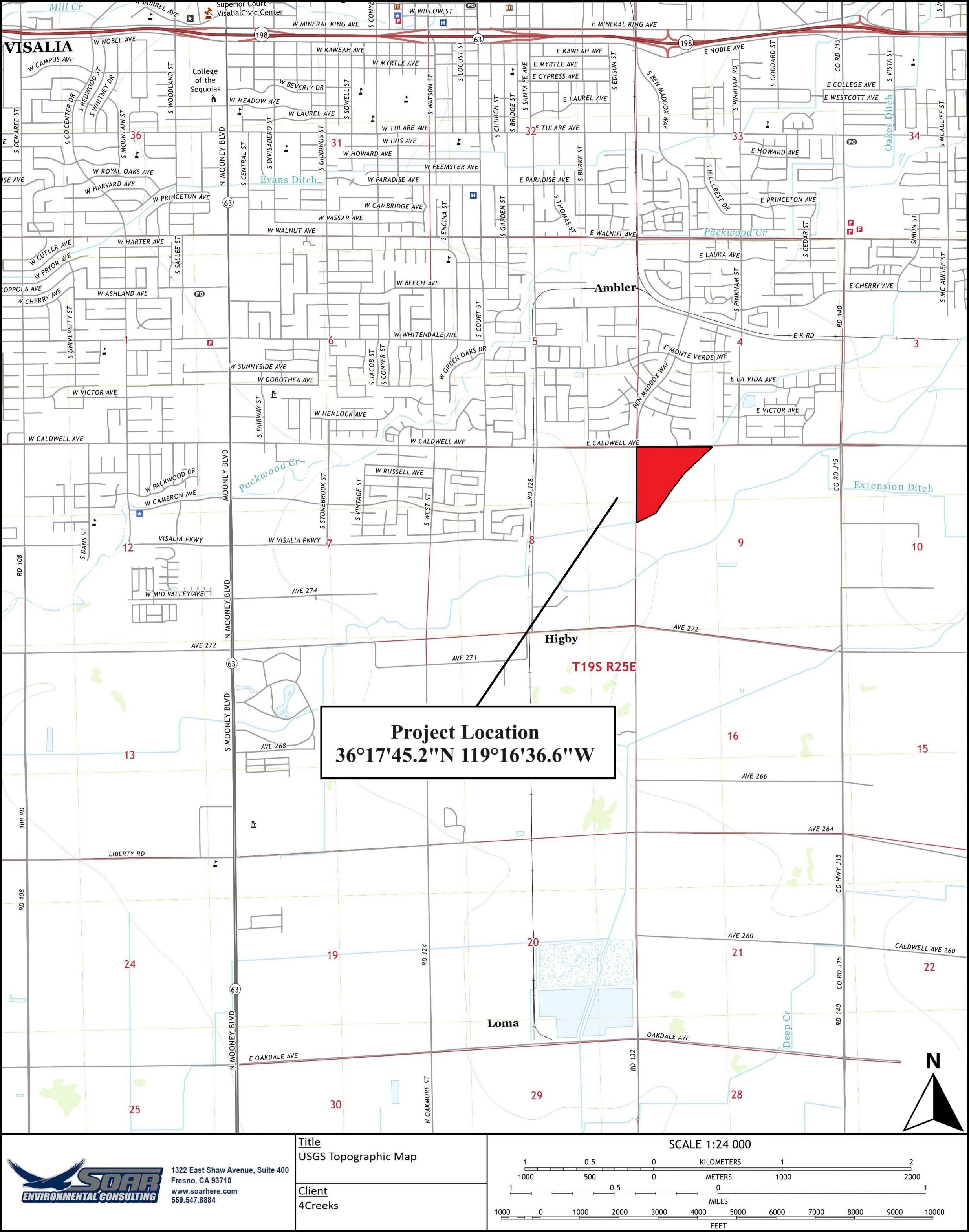
Soar contacted the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System on March 1, 2024. On March 11, 2024, SSJVIC revealed two (2) historic cultural resources within the project area. No archaeological sites are known within the project area. Three (3) previous surveys have been conducted within the project area. Four (4) historic cultural resources were identified within the ½-mile search radius of the project area. No historic properties on federal, state, or local inventories have been evaluated within the project area. Two (2) previous surveys have been conducted within a ½-mile radius of the project area. On March 12, 2024, Soar conducted an archeological pedestrian field survey of the project area. **TWO (2) cultural resources** were identified during the field survey, both historic-era single family homes located in the far northwest region of the Project area. These resources have been recorded, and will be included in the upcoming Phase 1 CRA.

Soar is contacting you to determine if you have any concerns regarding the proposed development. Pursuant to PRC § 21080.3.1 (d), you have **30 days** from the receipt of this letter to request consultation, in writing, with Soar. Should you have any concerns or knowledge of cultural resources in the specific project area, please contact me at <a href="https://hitsps.com/hi

Respectfully,

Heather Froshour, M.A., R.P.A.

Sr. Archaeologist





Thursday, March 14, 2024

Santa Rosa Rancheria Tachi Yokut Tribe P.O. Box 8 Lemoore, CA, 93245 Phone: (559) 633-3440 smccarty@tachi-yokut-nsn.gov

RE: Proposed housing development bounded by E Caldwell Ave and the Tulare Irrigation Ditch, Visalia, CA, 93292. APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007.

Dear Samantha McCarty, Cultural Specialist II,

Below, please find a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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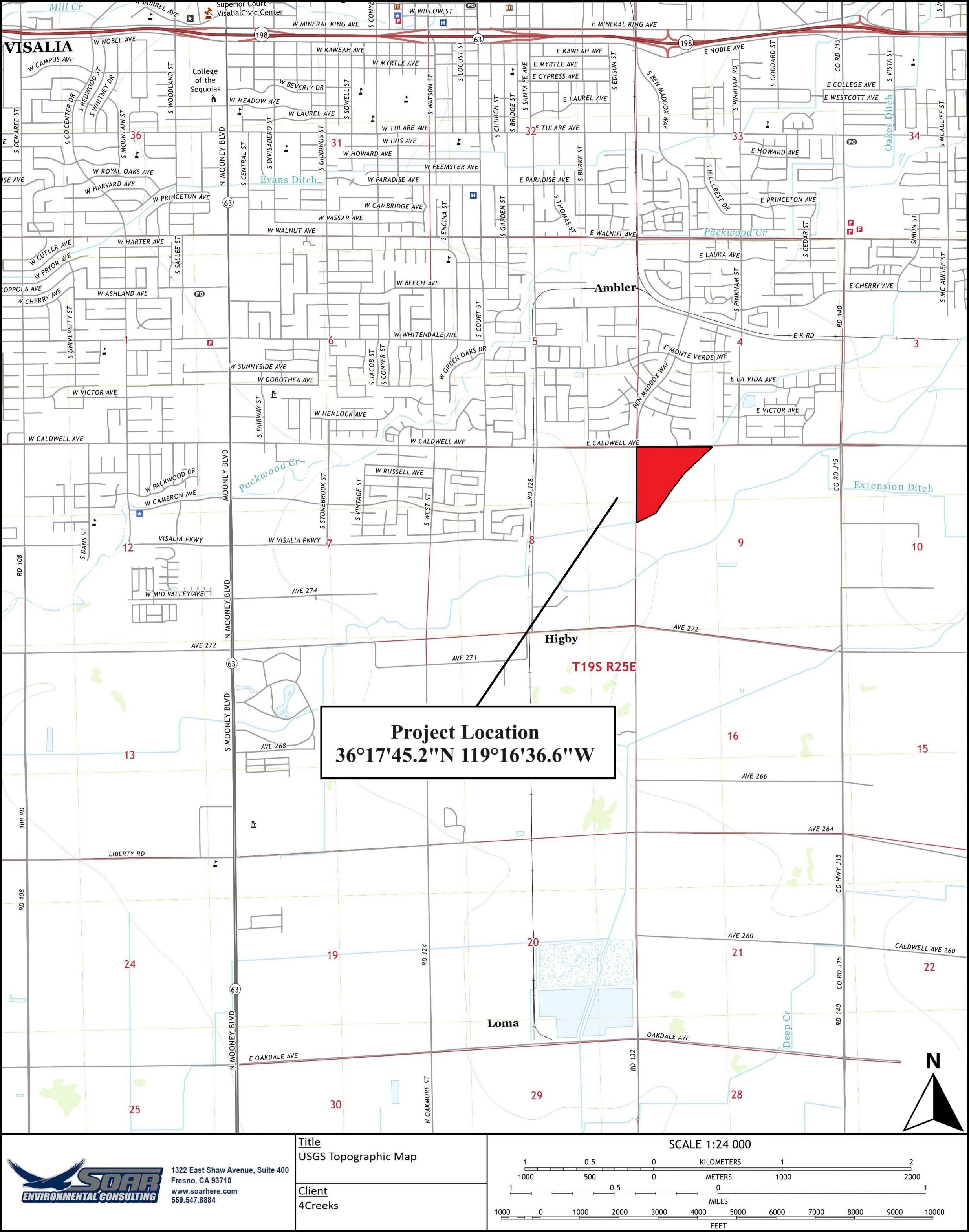
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Respectfully,

Heather Froshour, M.A., R.P.A.

Sr. Archaeologist





Thursday, March 14, 2024

Santa Rosa Rancheria Tachi Yokut Tribe P.O. Box 8 Lemoore, CA, 93245 Phone: (559) 423-3900 spowers@tachi-yokut-nsn.gov

RE: Proposed housing development bounded by E Caldwell Ave and the Tulare Irrigation Ditch, Visalia, CA, 93292. APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007.

Dear Shana Powers, THPO,

Below, please find a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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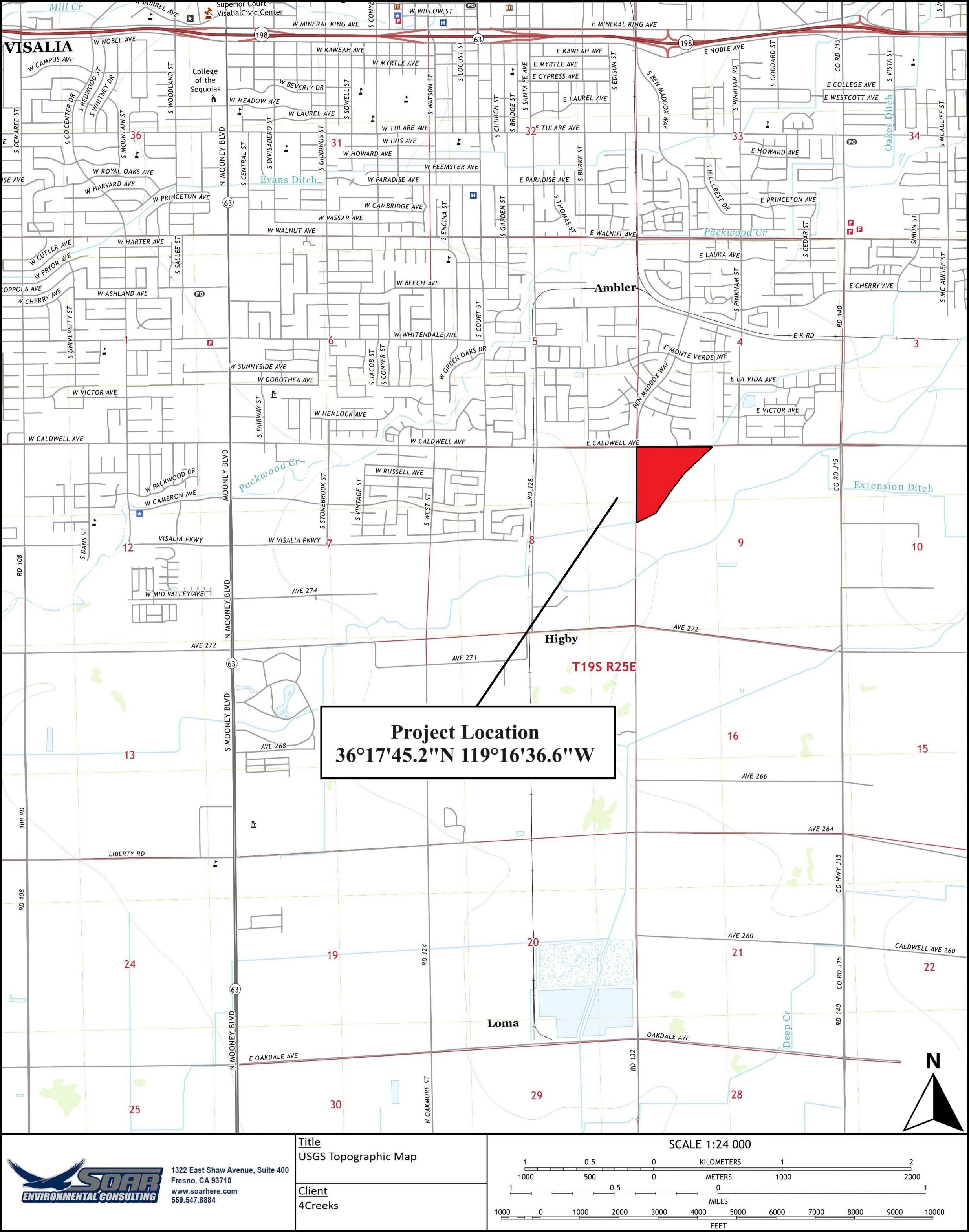
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Respectfully,

Heather Froshour, M.A., R.P.A.

Sr. Archaeologist





Thursday, March 14, 2024

Tule River Indian Tribe P.O. Box 589 Porterville, CA, 93258 Phone: (559) 781-4271

neil.peyron@tulerivertribe-nsn.gov

RE: Proposed housing development bounded by E Caldwell Ave and the Tulare Irrigation Ditch, Visalia, CA, 93292. APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007.

Dear Neil Peyron, Chairperson,

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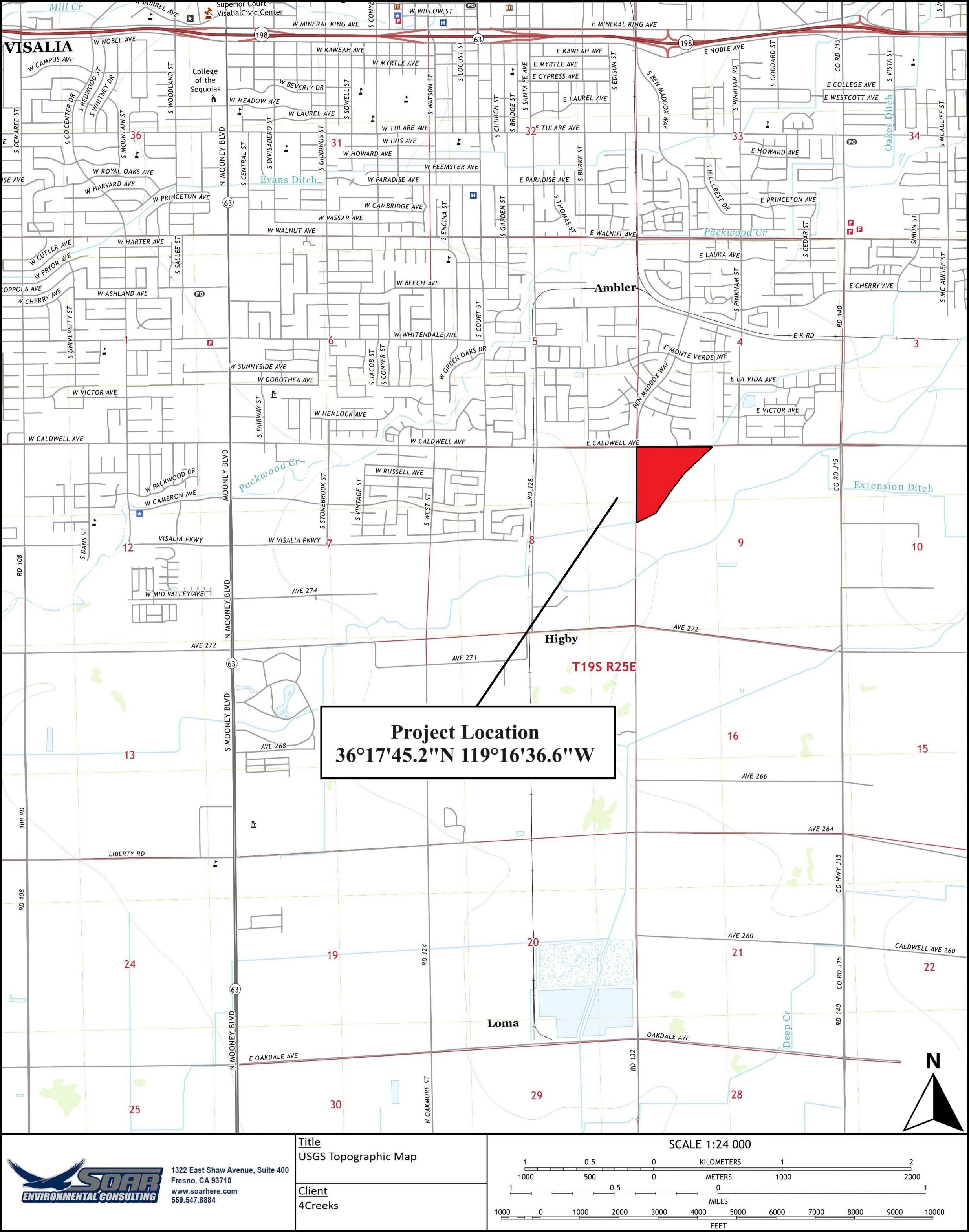
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Respectfully,

Heather Froshour, M.A., R.P.A.

Sr. Archaeologist





Thursday, March 14, 2024

Wuksachi Indian Tribe/Eshom Valley Band 1179 Rock Haven Ct. Salinas, CA, 93906 Phone: (831) 443-9702 kwood8934@aol.com

RE: Proposed housing development bounded by E Caldwell Ave and the Tulare Irrigation Ditch, Visalia, CA, 93292. APNs 124-010-001, 124-010-002, 124-010-003, 124-010-005, 124-010-007.

Dear Kenneth Woodrow, Chairperson,

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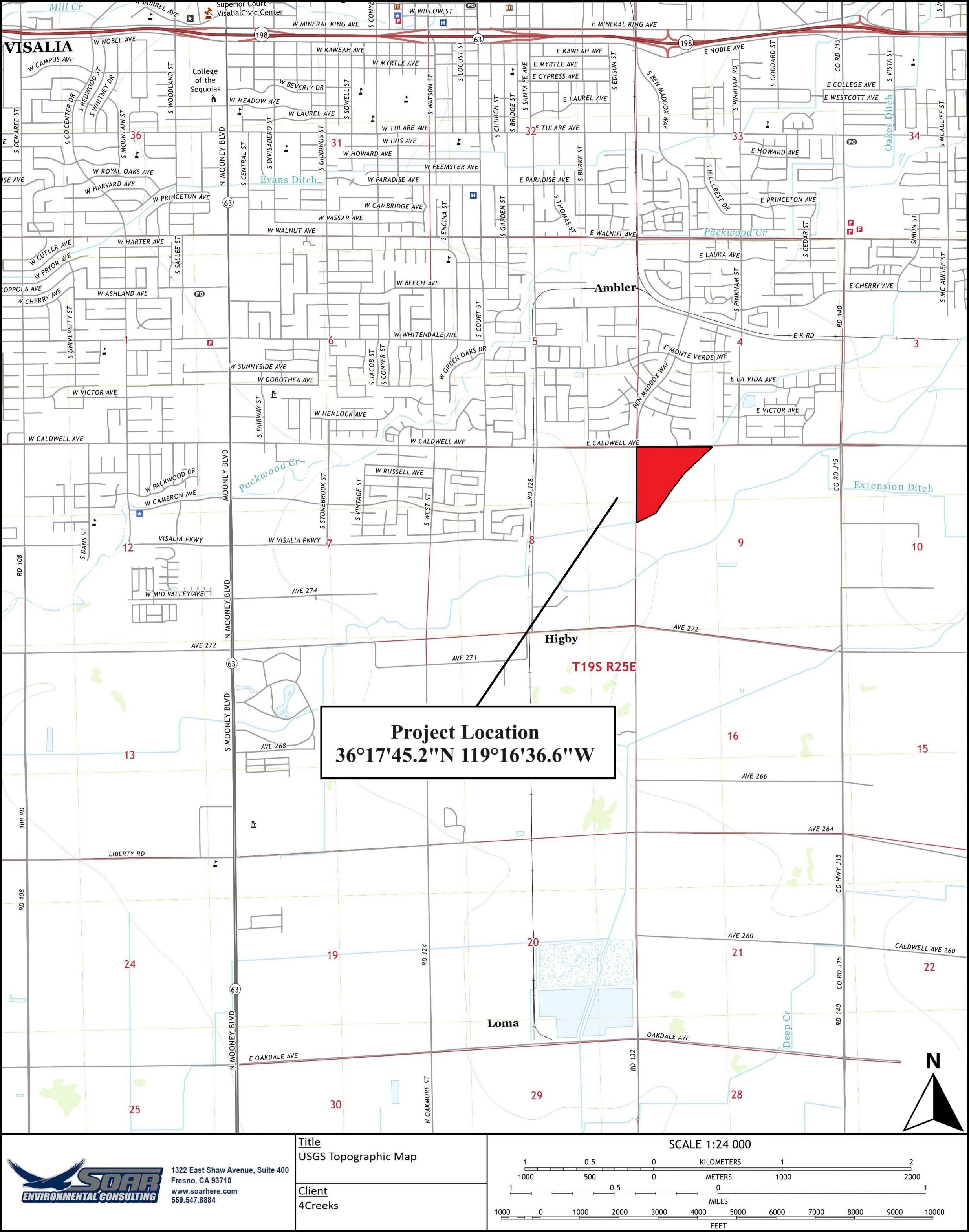
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Respectfully,

Heather Froshour, M.A., R.P.A.

Sr. Archaeologist





## APPENDIX C

Staff Resumes





Heather Froshour Senior Archaeologist

#### **12 Years of Relevant Experience**

#### **Biography**

Ms. Froshour's background emphasises archaeology, anthropology, and cultural resources monitoring.

#### **Education**

- M.A. in Historical Archaeology, November 2014. University of Leicester, Leicester, UK.
- B.A. in Anthropology/Geography, June 2010. University of Southern Maine, Gorham/Portland, ME.

#### **Professional Development**

- 8 hr training in Wilderness Firest Aid (Sierra Rescue International)
- Adult, Child, Infant C.A.R.E. CPR & First Aid Training (Sierra Rescue International)
- Driver/Operator

#### **Professional Affiliations**

- Register of Professional Archaeologists
- CHRIS Qualified Archaeologist
- Society of American Archaeology SAA
- Society of Historical Archaeology SHA

#### **Technical Expertise**

- Lithic Analysis
- Technical Report Writing
- Lab analysis
- Cultural Monitoring
- Site Surveying Phases 1-3
- Excavation
- Metal Detection
- Auguring
- ResearchMS Office
- Collector for ArchGIS

#### **Practical Experience**

Ms. Froshour is a registered professional archaeologist and cultural resources specialist with extensive experience in field and technical work. This experience including cultural resources monitoring, site survey, phase 1-3 excavations, and anthropology on various projects throughout the United States. She has a combined 8 years of experience in academic, consulting, museum, and public archaeology, and has worked in CRM since 2013 throughout various regions of the United States. Primary states of focus have included Maine, Massachusetts, Louisiana, Georgia, Virginia, Arizona, and California. She routinely assesses cultural resources for project related effects and their significance, provides cultural resource mitigation services, directs archaeological surveys of both excavation and pedestrian methods, and prepares documents for Section 106 of the NHPA, CEQA, and NRHP. Ms. Froshour also has experience working alongside trial monitors through survey with in the Colorado River and Mendocino National Forest regions. She has worked alongside the USDA Forest Service to provide post-fire monitoring and mitigation recommendations.

Ms. Froshour is certified by the Register for Professional Archeologists (Registrant ID: 5457).

### **Highlighted Projects**

# California High-Speed Rail Authority Construction Package 1, Cultural Resources Support, March 2023-Present

Heather is the Cultural Resources Support for this construction package. As such, she oversees staff archaeologist cultural reporting, monitoring, and artifact processing on the 33-mile right of way in Fresno and Madera Counties.

# SOAR Environmental Consulting, Senior Archaeologist, January 2023-Present Senior Archaeologist, Phase I Cultural Resources Assessment, Visalia, California

Provided desktop research, supervised the 2 person crew site pedestrian survey, full Phase 1 report, and Cultural Resources Initial Study for rezoning and housing subdivision construction project in Tulare County.

## Senior Archaeologist, Phase I Cultural Resources Evaluation, Yokuts Valley, California

Provided desktop research, tribal consultation, and full Phase 1 report for the construction a new saber transmission tower to accompany existing USACE and CAL FIRE structures on a 100 square feet area on top of Bear Mountain in Fresno County.

## Senior Archaeologist, Phase I Cultural Resources Evaluation, Shirley Meadows, California

Provided desktop research, tribal consultation, and full Phase 1 report with DPR forms for the construction a new saber transmission tower, and concrete masonry shelter enclosed in an 8 foot tall wire fence on a 100 square feet area on top of Shirley Peak in Kern County.

## Senior Archaeologist, Phase I Cultural Resources Evaluation, Mountain Ranch, California

Provided desktop research, tribal consultation, and full Phase 1 report with DPR forms for the construction a new saber transmission tower, and propane tank enclosed in an 8 foot tall wire fence on a 100 square feet area on top of Quiggs Mountain in Calaveras County.



## Senior Archaeologist, Phase I Cultural Resources Assessment, Glennville, California

Provided desktop research, site pedestrian survey, tribal consultation, and full Phase 1 report for the construction a new saber transmission tower, CMU block shelter, and parking lot enclosed in a wire fence on a 100 square feet area on top of Mount Pheasant in Kern County.

## Senior Archaeologist, Phase I Cultural Resources Assessment, Bakersfield, California

Provided desktop research, site pedestrian survey, and full Phase 1 report for rezoning project and multiple family residence construction project.

## Senior Archaeologist, Phase I Cultural Resources Assessment, Joshua Tree, California

Provided desktop research, site pedestrian survey, and full Phase 1 report for upscale yurt campground construction project.

# Post Fire Fuels and Priority Heritage Asset Assessment Surveys, Grindstone Region, CA (June 2022-December 2022). The Great Basin Institute, Archaeological Crew Lead.

Phase I pedestrian surveys and site recording on post-wildfire burned landscapes within the Mendocino National Forest. Overseeing a small crew in the field survey, site recording, and completion of extensive USDA Forest Service site reports and mapping of cultural resources in the area. Ensured that all pertinent data is documented and reported to Forest Services standards with specific attention to current field conditions, disturbances, vegetation, terrain, and geospatial data of cultural resources. Provided day to day support of the crew and worked as a liaison between the Great Basin Institute and Mendocino National Forest personnel. Conducted Section 106 and Section 110 Priority Heritage Asset assessments of archaeological resources throughout the eastern region of the Mendocino. Assisted in final Phase 1 survey report writing.

# Various Cultural Resource Management Survey Projects, GA & NC (June 2021- April 2022). TerraXplorations, Inc., Archaeology Field Director.

Phase I shovel testing in various locations throughout Georgia, in addition to a single project just outside of Raleigh, NC. These projects include road, bridge, and culvert improvement surveys as well as solar tract, farm, and generator surveys. All projects were conducted in 30m intervals along transect within the ESB of the survey area. All positive shovel tests were then delineated in 15m interval cruciform to determine site boundaries. Several projects required the use of metal detection grids in order to thoroughly survey areas of known Civil War activity. A number of projects for the Georgia Department of Transportation also required the probing of areas within the project ESB that were located within 1km from a known cemetery, with potential anomalies delineated and all results fully recorded. Duties include overseeing and directing field crews in locating, collecting, recording, and interpreting data from the survey. The supervision of personnel, including aiding in hiring and firing, performance reviews, training, work allocation, and problem resolution. Ensuring safe work practices and directing morning safety meetings to address potential hazards and safety concerns in the areas scheduled for fieldwork that day. Participation in field and office meetings with PIs and company owners to address scheduling and management procedures based on client needs as well as those of state and federal regulations and requirements.



# Cultural Resource Management Survey Project, VAM-1 and Glasgow Pipeline Replacement, VA (May 2021-June 2021). TerraXplorations, Inc., Archaeology Crew Chief.

Phase I shovel test excavations from the replacement of the VAM-1 and Glasgow natural gas pipelines in the Blue Ridge Mountains, near the Appalachian Trail. Evaluated and conducted field work in various conditions in primarily mountainous terrain. Under direct supervision helped to manage and organize field crew in order to complete the project in a timely and efficient manner. Maintained field equipment and assisted in the writing and compilation of all field paperwork. Personally in charge of the majority of all mappings of and oversight of field crew for sites throughout the project area.

# Various Cultural Resource Management Survey Projects, LA & MS (August 2020-May 2021). TerraXplorations, Inc., Archaeology Field Technician.

Phase I shovel test excavations for bank mitigation in North Eastern Mississippi along the Buttahatchee River. Phase III survey of two projects; the historic St. Amelia Plantation in Welcome, Louisiana and an unnamed prehistoric village in Plaquemine, Louisiana. The phase III projects both required excavating the foundations of various structures, and in the case of the prehistoric site excavating and mapping postholes within pits. The projects also required drawing plan views, and stratigraphic profiles, as well as feature and level write-ups. Unit excavations included 1mx1m to 3mx3m units, with a few requiring the extension of existing units to chase out observed features and artifact clusters.

# Various Cultural Resource Management Survey Projects, ID & WI (June 2020 - July 2020). Tetra Tech, Inc., Archaeology Field Technician.

Phase I pedestrian surveying of various wind and solar farm projects throughout corn and soybean fields.

# Cultural Resource Management Survey, Acadiana to Gillis, LA (January 2020-March 2020). BGE, Inc., Archaeology Field Technician.

Phase I shovel test excavations of proposed natural gas pipeline between Acadian and Gillis, Louisiana. This project entailed the excavation of 30mx30m units with distance varying based on HPA and LPA guidelines (a spacing of 30m to 50m respectively). A requirement of the survey was to maintain daily investigation point forms for individual shovel test units. In addition to this, it was required to aid in recording artifacts and photos of sites found throughout the project.

# Various Cultural Resource Management Survey Projects, MN & IA (November 2019-December 2019). In Situ Archeological Consulting LLC, Archaeology Field Technician.

Phase I pedestrian surveying of various natural gas and cellular tower projects, as well as Phase II field work entailing the excavation of 45cmX45cm test units and GPS data collection. The projects also occasionally required the writing of site forms, and research for future projects at the Minnesota SHPO collections.

## Cultural Resource Management Survey, Ten West Link Project, CA & AZ (August 2019-October 2019). POWER Engineers Inc., Archaeology Field Technician.

Phase I pedestrian survey of the proposed 500 kV transmission line connecting electrical substations in Tonopah, Arizona and Blythe, California. This project entailed working in one of five teams, and often included 1-2 tribal monitors from the Colorado River Indian Tribes. The right of way crews used a 400ft buffer for the corridor, with each team using a 15m spread to survey the proposed transmission line. This survey required the use of a Trimble GPS system to navigate the corridor and plot both isolate and site locations for GIS and recording crew



Archaeologist

#### **Education**

- ✓ Southern New HampshireUniversity: M.A. History, 2023
- Mississippi State University:B.A. Anthropology, 2018
- Mississippi University for Women: B.A. History, 2014
- ✓ East Mississippi CommunityCollege: A.A. Liberal Arts, 2010

#### **Key Skills**

- ∀ Identifying cultural resources in historical battlefields.
- Exhuming, identifying, and moving remains.
- ∀ Technical report writing.
- ∀ Ground penetrating radar
- ∀ Historical research



### **Biography**

Mr. Rowland provides expertise in archaeology for field support and technical writing in multiple states including California and, recently, in the Southeastern United States. His performance includes all phases of cultural resources evaluations per State and Federal environmental law as an archaeological field director, technician, Crew Chief, and metal detection specialist. Kevin works in various environments, from sugar cane fields in Louisiana to the mountains of Virginia and the Central Valley of California. He exhumes human remains and recovers prehistoric artifacts and metal artifacts. Experience working with Ground Penetrating Radar (GPR).

#### **Work Experience**

2023 – Soar Environmental Consulting, Inc., Archaeologist Working on the California Department of Fish and Wildlife wildfire resiliency program on public lands.

2020 - 2023 – Terraxplorations, Inc. – Field Director/Historian/Metal Detection Specialist. Phase 1 through Phase 3 studies.

2023, Archaeological field Director, North Carolina, (2023.158) Phase I. Included grave locating and relocating.

2022 Archaeological Field Director, Atlanta Georgia Cemetery GPR work.

2021-2022, Archaeological Field Director, Georgia, GDOT 285 Phase I

November 2020: Archaeology Field Technician at Caledonia MS (Phase I Survey)

November 2020-January 2021: Archaeological Field Technician at Formosa Group, Louisiana (16SJ70) Phase II

October 2020: Archaeological Field Technician at Reserve LA (Phase I Survey)

2020: Archaeological Field Technician at SLM, Louisiana (16SJ80)

2018: Archaeological Field Technician at the Levi Colbert Prairie site, Mississippi (22MO1246)



Archaeologist

#### **Education**

- ✓ Southern New Hampshire University: M.A. History, 2023
- ✓ Mississippi State University:B.A. Anthropology, 2018
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2023 – Soar Environmental Consulting, Inc., Archaeologist Working on the California Department of Fish and Wildlife wildfire resiliency program on public lands.

2020 - 2023 – Terraxplorations, Inc. – Field Director/Historian/Metal Detection Specialist. Phase 1 through Phase 3 studies.

2023, Archaeological field Director, North Carolina, (2023.158) Phase I. Included grave locating and relocating.

2022 Archaeological Field Director, Atlanta Georgia Cemetery GPR work.

2021-2022, Archaeological Field Director, Georgia, GDOT 285 Phase I

November 2020: Archaeology Field Technician at Caledonia MS (Phase I Survey)

November 2020-January 2021: Archaeological Field Technician at Formosa Group, Louisiana (16SJ70) Phase II

October 2020: Archaeological Field Technician at Reserve LA (Phase I Survey)

2020: Archaeological Field Technician at SLM, Louisiana (16SJ80)

2018: Archaeological Field Technician at the Levi Colbert Prairie site, Mississippi (22MO1246)

# **Appendix D**

**Energy Calculations** 

### **Construction Equipment Energy Use**

Phase Name	Off Road Equipment Type	Off Road Equipment Unit	Usage Hours Per Day <sup>1</sup>	Horse Power (lbs/sec) <sup>1</sup>	Load Factor <sup>1</sup>	Total Operational Hours	BSFC <sup>2</sup>	Fuel Used (gallons) <sup>3</sup>	MBTU <sup>4</sup>	
Demolition	Rubber Tired Dozers	0	8	247	0.4	0	0.367	0.00	0	ł
Demolition	Concrete/Industrial Saws	0	8	81	0.73	0	0.408	0.00	0	i
Demolition	Excavators	0	8	158	0.38	0	0.408	0.00	0	ĺ
Site Preparation	Rubber Tired Dozers	3	8	247	0.4	720	0.367	3672.37	510.4601	ĺ
Site Preparation	Graders	0	8	187	0.41	0	0.367	0.00	0	i
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	960	0.408	1977.41	274.8597	5649.78
Grading	Excavators	2	8	158	0.38	1200	0.367	3719.46	517.0044	i
Grading	Graders	1	8	187	0.41	600	0.367	2374.84	330.1027	22539.42
Grading	Rubber Tired Dozers	1	8	247	0.4	600	0.367	3060.31	425.3834	i
Grading	Scrapers	2	8	367	0.48	1200	0.367	10913.05	1516.914	i
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37	1200	0.408	2471.76	343.5747	i
<b>Building Construction</b>	Cranes	1	7	231	0.29	5180	0.367	17914.19	2490.073	96219.31
<b>Building Construction</b>	Forklifts	3	8	89	0.2	17760	0.408	18143.23	2521.909	i
<b>Building Construction</b>	Generator Sets	1	8	84	0.74	5920	0.408	21119.54	2935.615	i
<b>Building Construction</b>	Tractors/Loaders/Backhoes	3	7	97	0.37	15540	0.408	32009.30	4449.292	i
<b>Building Construction</b>	Welders	1	8	46	0.45	5920	0.408	7033.05	977.5939	i
Paving	Pavers	2	8	130	0.42	880	0.367	2480.46	344.7844	6174.64
Paving	Paving Equipment	2	8	132	0.36	880	0.367	2158.82	300.0761	i
Paving	Rollers	2	8	80	0.38	880	0.408	1535.35	213.4139	i
Paving	Cement and Mortar Mixers	0	8	9	0.56	0	0.408	0.00	0	i
Paving	Tractors/Loaders/Backhoes	0	8	97	0.37	0	0.408	0.00	0	i
Architectural Coating	Air Compressors	1	6	78	0.48	330	0.408	709.09	98.56353	i
Total								131292.23	18249.62	i

### Construction Phases

			Phase Start		Num Days	Total Number
PhaseNumber	Phase Name	Phase Type	Date	Phase End Date	Week	of Days
1	Demolition	Demolition			5	
2	Site Preparation	Site Preparation	1/1/2025	2/11/2025	5	30
3	Grading	Grading	2/12/2025	5/27/2025	5	75
4	Building Construction	Building Construction	8/6/2025	6/6/2028	5	740
5	Paving	Paving	6/7/2028	8/22/2028	5	55
6	Architectural Coating	Architectural Coating	8/23/2028	11/7/2028	5	55

### Notes

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

### Mobile Energy Use (Construction)

### Worker Trips

	Daily Worker  Trips <sup>1</sup>	Worker Trip Length <sup>1</sup>	VMT/Day	MPG Factor (EMFAC2017)	Gallons of Gas/Day	# of Days	Total Gallons of Gas	МВТИ	Total Gallons in Construction
Demolition	0	10.8	0	29.23	0.0	0	0.0	0	0
Site Preparation	18	10.8	194.4	29.23	6.7	30	199.5	23.1624	5849
Grading	20	10.8	216	29.23	7.4	75	554.2	64.33999	23094
Building Construction	303	10.8	3272.4	29.23	112.0	740	82845.6	9617.542	179065
Paving	15	10.8	162	29.23	5.5	55	304.8	35.387	6479
Architectural Coating	61	10.8	658.8	29.23	22.5	55	1239.6	143.9071	1949
Total	N/A	N/A	N/A	N/A	N/A	955	85143.8	9884.339	216436

### Vendor Trips

	Daily Vendor Trips	Vendor Trip Length	VMT/Day	MPG Factor	Gallons of Diesel/Day	# of Days	Total Gallons of Diesel	МВТИ
Building Construction	112	7.3	817.6	8.43	97.0	740	71770.34401	9976.078

### **Hauling Trips**

	Daily Hauling Trips	Hauling Trip Length	VMT/Day	MPG Factor	Gallons of Gas/Day	# of Days	Total Gallons of Diesel	МВТИ
Demolition	0	7.3	0	8 43	0.0	0	0	0

71770.34401 Fleet Characteristics

	Vehicle Class	Fleet Mix	2024 MPG Factor (EMFAC2017)	Average MPG Factor
Assumed Vehicle Fleet for	LDA	33%	33.24	
Workers	LDT1	33%	28.07	
WOIKEIS	LDT2	33%	26.38	29.23
Assumed Vehicle Fleet for	MHD	50%	9.74	
Vendor Trips	HHD	50%	7.12	8.43

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

### **Mobile Energy Use (Operations)**

Total Annual	
VMT from	
Project	
(CalEEMod)	4,356,848

### Fleet Mix & Fuel Calculations

Vehicle Class	Proportion of	Fleet Mix <sup>1</sup> by Vehicle		Proportion of vehicle class using gas or diesel (EMFAC2021) <sup>2</sup>		Annual VMT by Vehicle Class and Fuel Type		Fuel Efficiency (MPG) by Vehicle Class and Fuel Type (EMFAC2021)		Annual Fuel Use from Project (gallons)	
	TIEET WIIX	Class	Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	
LDA	52.16%	2272531.9	100%	0%	2268364.46	4167.46	28.92	42.70	78425.6	97.6	9118.0
LDT1	21.00%	914938.1	100%	0%	914599.78	338.30	23.79	24.66	38452.5	13.7	4465.9
LDT2	17.00%	740664.2	100%	0%	738274.48	2389.68	23.27	32.65	31732.9	73.2	3694.0
MDV	6.00%	261410.9	98%	2%	257275.63	4135.25	18.87	23.72	13635.9	174.3	1607.2
LHD1	0.08%	3485.5	50%	50%	1739.18	1746.30	9.67	15.77	179.8	110.7	36.3
LHD2	0.09%	3921.2	27%	73%	1061.43	2859.73	8.58	13.15	123.7	217.5	44.6
MHD	0.76%	33112.0	18%	82%	5910.91	27201.13	4.80	8.78	1231.4	3097.8	573.5
HHD	2.00%	87137.0	0%	100%	19.15	87117.81	3.37	6.22	5.7	14013.6	1948.5
OBUS	0.00%	0.0	63%	37%	0.00	0.00	4.79	6.96	0.0	0.0	0.0
UBUS	0.43%	18734.4	64%	36%	12076.55	6657.90	8.41	12.12	1436.1	549.2	243.0
MCY	0.25%	10892.1	100%	0%	10892.12	0.00	40.47	NA	269.2	0.0	31.2
SBUS	0.01%	435.7	38%	62%	165.39	270.29	9.83	8.13	16.8	33.3	6.6
MH	0.22%	9585.1	65%	35%	6259.63	3325.43	4.41	9.39	1418.2	354.1	213.9
Total	100.00%	4356848.0			4216638.71	140209.29	14.55		166928	18735	21982.8

Fleet Characteristics 23.5

Source: EMFAC 2021 (v1.0.1) Emissions Inventory

Region Type: County Region: Tulare County Calendar Year: 2028 Season: Annual

Vehicle Classification: EMFAC2007 Categories

 $Units: miles/year for VMT, trips/year for Trips, tons/year for Emissions, 1000 \ gallons/year for Fuel Consumption$ 

#### GASOLINE

							1				
									Fuel	Annual Fuel	
	Calendar	Vehicle							Consumption	Consumption	
Region	Year	Category	Model Year	Speed	Fuel	Population	VMT (Annual)	Trips (Annual)	(1000 gal/year)	(gallons)	MPG
Tulare County	2025	HHDT	Aggregated	Aggregated	GAS	2	164	36	0.0486	49	3.37
Tulare County	2025	LDA	Aggregated	Aggregated	GAS	62800	2580000	292000	89.2	89200	28.92
Tulare County	2025	LDT1	Aggregated	Aggregated	GAS	5590	186000	24100	7.82	7820	23.79
Tulare County	2025	LDT2	Aggregated	Aggregated	GAS	29000	1140000	135000	49	49000	23.27
Tulare County	2025	LHDT1	Aggregated	Aggregated	GAS	2670	97700	39800	10.1	10100	9.67
Tulare County	2025	LHDT2	Aggregated	Aggregated	GAS	336	12100	5010	1.41	1410	8.58
Tulare County	2025	MCY	Aggregated	Aggregated	GAS	3370	19100	6750	0.472	472	40.47
Tulare County	2025	MDV	Aggregated	Aggregated	GAS	27500	983000	125000	52.1	52100	18.87
Tulare County	2025	MH	Aggregated	Aggregated	GAS	356	3200	36	0.725	725	4.41
Tulare County	2025	MHDT	Aggregated	Aggregated	GAS	176	10800	3520	2.25	2250	4.80
Tulare County	2025	OBUS	Aggregated	Aggregated	GAS	73	3870	1460	0.808	808	4.79
Tulare County	2025	SBUS	Aggregated	Aggregated	GAS	28	1750	110	0.178	178	9.83
Tulare County	2025	UBUS	Aggregated	Aggregated	GAS	12	497	47	0.0591	59	8.41

### DIESEL

									Fuel	Annual Fuel	
		Vehicle							Consumption	Consumption	
Region	Calendar Year	Category	Model Year	Speed	Fuel	Population	VMT	Trips	(1000 gal/year)	(gallons)	MPG
Tulare County	2025	HHDT	Aggregated	Aggregated	DSL	4890	746000	88700	120	120000	6.22
Tulare County	2025	LDA	Aggregated	Aggregated	DSL	159	4740	658	0.111	111	42.70
Tulare County	2025	LDT1	Aggregated	Aggregated	DSL	4	69	12	0.00279	3	24.66
Tulare County	2025	LDT2	Aggregated	Aggregated	DSL	88	3690	422	0.113	113	32.65
Tulare County	2025	LHDT1	Aggregated	Aggregated	DSL	2760	98100	34700	6.22	6220	15.77
Tulare County	2025	LHDT2	Aggregated	Aggregated	DSL	871	32600	11000	2.48	2480	13.15
Tulare County	2025	MDV	Aggregated	Aggregated	DSL	424	15800	1950	0.666	666	23.72
Tulare County	2025	MH	Aggregated	Aggregated	DSL	196	1700	20	0.181	181	9.39
Tulare County	2025	MHDT	Aggregated	Aggregated	DSL	1060	49700	12400	5.66	5660	8.78
Tulare County	2025	OBUS	Aggregated	Aggregated	DSL	32	2240	390	0.322	322	6.96
Tulare County	2025	SBUS	Aggregated	Aggregated	DSL	135	2860	1950	0.352	352	8.13
Tulare County	2025	UBUS	Aggregated	Aggregated	DSL	3	274	14	0.0226	23	12.12

### Notes

- 1. Used project-specific vehicle fleet mix for residential
- 2. 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

## **Appendix E**

**Agricultural Mitigation** 

## Cameron Ranch Estates

## Agricultural Mitigation Memo

### **EXISTING CONDITIONS**

The proposed Project Site is located within the City of Visalia Planning Area, just outside City Limits, in Tulare County. The site is 2.5 miles southwest of Visalia's downtown, south of the intersection of Ben Maddox Way at Caldwell Avenue. The Project involves construction on APN 124-010-007 & 005. The site is 43.6 acres and features a level topography with single-family homes to the north and west and agricultural area to the south and east. Currently, the location is used for farming and includes undeveloped land. The site is pre-zoned for R-1-5 (Single Family Residential, 5,000 Square Foot Minimum Site Area) and is currently awaiting annexation by the City of Visalia. It is currently zoned as AE-20 (Exclusive Agriculture, 20 Acre Minimum Site Area) by Tulare County. It is designated for Very Low-Density Residential use under the General Plan Designation.

The site is 43.6 acres in total. 41.7 acres are designated as Prime Farmland by the 2018 FMMP. The remaining 1.9 acres are designated as Semi-agriculture and Rural Commercial Land. Although the site is mostly Prime Farmland, it is designated for Low-Density Residential uses by the Visalia General Plan. The proposed project will follow this designation.

Visalia is planning for growth in this area due to its proximity to similar uses. Single-family homes currently exist to the north and west of the site. Farmland currently exists to the south and east of the site, however, these farmlands are designated as Low-Density Residential, Medium Density, Parks/Recreation and public/institutional by the Visalia General Plan. The site borders the existing Visalia City boundaries and is located within Visalia's Tier 2 Urban Development Boundary. These factors, along with the existing infrastructure and development in the surrounding area, make this site an ideal location for annexation and new development.

### MITIGATED FARMLAND

The Project Site is not exempt from the Program. The Site is within the Tier 2 UBD and is larger than five acres. Following the Program's policies, the 1.9 acres designated as Semi-Agricultural and Rural Commercial Land will be exempt. The remaining 41.7 acres are Prime Farmland, which has been used for irrigated agricultural production in the past four years, and both soil types are listed on the Soil Candidate Listing for Prime Farmland. However, of these 41.7 acres, 8.34 will be roadways and .75 acres will be a public park. According to the Program, public facilities, including roadways and parks, are excluded from the mitigation. The remaining 32.61 acres will need to be mitigated.

The farmland for the mitigation would follow all requirements set out in the Visalia Municipal Code Chapter 18.04. This includes:

- 1. The preserved land will be in the southern San Joaquin Valley and will be outside Visalia's City Limits/Sphere of Influence.
- 2. The preserved land will designated as prime farmland.
- 3. The preserved land shall be a minimum of 20 contiguous acres in size.



- 4. The preserved land will be zoned and planned for agricultural uses consistent with the purposes of an agricultural conservation easement.
- 5. The preserved land will have at least one verified source of water.
- 6. The preserved land will not be encumbered by any use or structure that would be incompatible with the purpose of the agricultural conservation easement.

### **IMPACTS OF PROJECT**

The Project Site is currently occupied by agricultural land with orchard crops. Implementation of the proposed Project would result in the permanent conversion of approximately 41.7 acres of Prime Farmland to non-agricultural uses.

The loss of Prime Farmland on the Project Site would result in the decrease of Important Farmland inventory in the Visalia Planning Area. Visalia Planning Area currently has an Important Farmland inventory of 43,155 acres, 33,991 acres of which were categorized as Prime Farmland. Implementation of the Project would convert 41.7 acres of Prime Farmland which would result in a 0.097% percent decrease in the total Important Farmland inventory of Visalia Planning Area and a 0.123% percent decrease in the Prime Farmland inventory.

**Mitigation Measure AG-1** will secure 32.61 acres of permanent Prime Farmland outside of Visalia's development boundaries to reduce this impact.

### BENEFITS OF PROJECT AND MITIGATION

While the Project will impact the farmland inventory, it will bring benefits to Visalia. The Project will add new housing close to the existing City. This will reduce the need for housing further away, which would potentially add transportation and infrastructure impacts. Additionally, separating farmland from existing residential neighborhoods is ideal for both the farmland and neighborhoods. It will reduce the amount of noise in the neighborhoods and reduce the potential for pollution on the farmland. This Project and mitigation will secure permanent farmland outside of Visalia's development boundaries. This will ensure that the agricultural uses will exist long-term and will not be impacted in the future.

### **ALTERNATIVES**

### **Reduced Project Size**

To remain under the Program's requirements, the Project would need to develop on less than 20 acres of Prime Farmland. If only 20 acres of the Prime Farmland were developed, the Project would be reduced to approximately 80 homes. This action would decrease the availability of homes in Visalia, which contradicts the City's housing objectives. Additionally, this would drive development to other areas of Visalia as people search for housing elsewhere.

### **No Project**

The No Project alternative would leave the site as it currently is. This would preserve the existing Prime Farmland; however, it would not add housing to Visalia. This would not be consistent Visalia's housing goals, and lead to development in other areas. As previously discussed, this is an ideal location for new development and annexation into the City of Visalia. If the onsite farmland is preserved, it will eventually be surrounded by new development due to General Plan land designations and Visalia's housing demands.



### **MITIGATION**

**Mitigation Measure AG-1:** Following *Visalia Municipal Code Chapter 18.04*: Agricultural Land *Preservation Program,* the developer will acquire a minimum of 32.61 acres of Prime Farmland. This land will be located in the southern San Joaquin Valley, but outside of Visalia's Sphere of Influence. This farmland will be preserved for long-term agricultural uses.

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. Land is included in this program 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:

- **Prime Farmland** has the ideal physical and chemical composition for crop production. It has been used for irrigated production in the four years prior to classification and can produce sustained yields. 51% of the Visalia Planning Area is classified as Prime Farmland.
- Farmland of Statewide Importance has also been used for irrigated production in the four years prior to classification and is only slightly poorer quality than Prime Farmland. 11% of the Visalia Planning Area is classified as Farmland of Statewide Importance.
- Unique Farmland has been cropped in the four years prior to classification and does not meet the criteria for Prime Farmland or Farmland of Statewide Importance but has produced specific crops with high economic value. Less than 1% of the Visalia Planning Area is classified as Unique Farmland.
- 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. 2% of the Visalia Planning Area is classified as Farmland of Local Importance.

Visalia Municipal Code Chapter 18.04: Agricultural Land Preservation Program

Chapter 18.04 of the Visalia Municipal Code details the Agricultural Land Preservation Program (Program) in Visalia. The agricultural land preservation program intends to establish a process for the required preservation of agricultural land through the acquisition of agricultural conservation easements or the payment of an in-lieu fee for projects.

**Easement Acquisition:** The applicant shall convey, or arrange for the conveyance of, an area of land meeting its preserved land obligation to a qualified entity for execution of an agricultural conservation easement thereon. This shall include the conveyance of land within an agricultural land mitigation bank.

**Determination of Preserved Land Obligation:** The preserved land obligation shall be calculated at a ratio of one acre of preserved land for each acre of converted land. Converted land acreage shall be calculated by determining the applicable project acreage less the acreage of exclusions.

All projects authorized by the City that would result in the conversion of prime farmland or farmland of statewide importance are subject to the provisions detailed in the Program. Projects can be exempt or excluded from the Program due to:



- 1. *Location.* Projects, or portions thereof, located on lands that are not within the Tier II Urban Development Boundary or the Tier III Urban Growth Boundary.
- 2. Size. Projects of five acres or less in gross area. The City may disallow the use of this exemption if it finds that the subject property has been subdivided into five-acre or smaller parcels in whole or in part to avoid the preserved land obligation in accordance with this chapter.
- 3. *Prior Compliance.* Projects on sites that have demonstrated compliance with the provisions of this chapter for affected acreage.

Projects consistent with any of the following criteria are not subject to the provisions of this chapter and shall be excluded from the preserved land obligation Such exclusions may comprise the entire project area or may be a portion of the project area acreage. Only such portions of the project area that falls within any of the following categories shall be excluded.

- 1. Farmland Designation. Acreage not designated as prime farmland or farmland of statewide importance on the most recent Farmland Mapping and Monitoring Program (FMMP) map published by the California Department of Conservation.
- 2. Farmland Designation. Acreage that may be designated as prime farmland or farmland of statewide importance on the most recent Farmland Mapping and Monitoring Program (FMMP) map published by the California Department of Conservation but meets at least one of the following standards.
  - Land Use. The land is not currently and has not been used for irrigated agricultural production for a minimum of four consecutive calendar years.
  - Soils. The soil type is not listed on the Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance for Tulare County, as maintained by the Department of Conservation for purposes of the FMMP.
- 3. Project Type or Use. The following projects are exempt from the Program:
  - o Affordable housing projects that comply with State Density Bonus Law.
  - o Agricultural processing uses.
  - o Agricultural buffers.
  - o Public facilities.
  - o Roadways.

**Eligibility of Land for Easement.** The preserved land shall meet all the following requirements to be eligible for placement in an agricultural conservation easement:

- 1. The preserved land shall be in the southern San Joaquin Valley, with preference afforded to preserved land located within 10 miles of the City limits. The preserved land must be located outside any city's limits and sphere of influence.
- 2. The preserved land shall be designated as prime farmland or farmland of statewide importance on the most recently published FMMP map.
- 3. The preserved land shall be a minimum of 20 contiguous acres in size.



- 4. The preserved land shall be zoned and planned for agricultural uses consistent with the purposes of an agricultural conservation easement.
- 5. The preserved land shall have at least one verified source of water.
- 6. The preserved land shall not be encumbered by any use or structure that would be incompatible with the purpose of the agricultural conservation easement. Such uses shall be deducted from the total acreage being preserved.

**Eligibility of In-Lieu Fee Payment.** To be eligible for payment of an in-lieu fee to satisfy the preserved land obligation, either of the following standards must be met.

- 1. The total preserved land obligation is less than 20 acres.
- 2. If the total preserved land obligation is 20 acres or more, the applicant must demonstrate at least one of the following to the satisfaction of the City:
  - a. No qualified entity exists;
  - The applicant has met with all qualified entities and all such entities are unable or unwilling to assist with the acquisition of an agricultural conservation easement, as certified in writing to the City; or
  - c. Working with a qualified entity, the applicant has made at least one good faith offer to purchase an agricultural conservation easement, but any and all such offers have been declined by the potential seller, as certified in writing to the City.

### City of Visalia General Plan

The 2030 General Plan includes the policies related to agricultural resources that correlate to the proposed Project:

- LU-P-14: Recognize the importance of agriculture-related business to the City and region, and support the continuation and development of agriculture and agriculture related enterprises in and around Visalia by:
  - Implementing growth boundaries and cooperating with the County on agricultural preservation efforts;
  - Accommodating agriculture-related industries in industrial districts;
  - Facilitating successful farmers' markets;
  - Helping to promote locally grown and produced agricultural goods, and the image of Visalia and Tulare County as an agricultural region.
- LU-P-19: Ensure that growth occurs in a compact and concentric fashion by implementing the General Plan's phased growth strategy.
- LU-P-21: Allow annexation and development of residential, commercial, and industrial land to occur within the Tier II UDB and the Tier III Urban Growth Boundary consistent with the City's Land Use Diagram, according to the stated phasing thresholds.
- LU-P-30: Maintain greenbelts, or agricultural/open space buffer areas, between Visalia and other communities by implementing growth boundaries and working with Tulare County and land developers to prevent premature urban growth north of the St. Johns River and in other sensitive locations within the timeframe of this General Plan.



- LU-P-31: Promote the preservation of permanent agricultural open space around the City by protecting viable agricultural operations and land within the City limits in the airport and wastewater treatment plant environs.
- LU-P-32: Continue to maintain a 20-acre minimum for parcel map proposals in areas designated for Agriculture to encourage viable agricultural operations in the Planning Area.
- OSC-P-27: To allow efficient cultivation, pest control and harvesting methods; require buffer and transition areas between urban development and adjoining or nearby agricultural land.
- OSC-P-28: Require new development to implement measures, as appropriate, to minimize soil erosion related to grading, site preparation, landscaping, and construction.

### **Tulare County General Plan**

The 2030 Tulare County General Plan contains following policies related to agricultural resources that correlate to the proposed project:

- AG-1.1: The County shall maintain agriculture as the primary land use in the valley region of the County, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's real contribution to the conservation of open space and natural resources.
- AG-1.6: The County shall consider developing an Agricultural Conservation Easement Program (ACEP) to help protect and preserve agricultural lands (including "Important Farmlands"), as defined in this Element. This program may require payment of an in-lieu fee sufficient to purchase a farmland conservation easement, farmland deed restriction, or other farmland conservation mechanism as a condition of approval for conservation of important agricultural land to non-agricultural use. If available, the ACEP shall be used for replacement lands determined to be of statewide significance (Prime or other Important Farmlands), or sensitive and necessary for the preservation of agricultural land, including land that may be a part of a community separator as part of a comprehensive program to establish community separators. The in-lieu fee or other conservation mechanism shall recognize the importance of land value and shall require equivalent mitigation.
- AG-1.7: The County shall promote the preservation of its agricultural economic base and open space resources through the implementation of resource management programs such as the Williamson Act, Rural Valley Lands Plan, Foothill Growth Management Plan or similar types of strategies and the identification of growth boundaries for all urban areas located in the County.
- AG-1.8: The County shall not approve applications for preserves or regular Williamson Act contracts on lands located within a UDB and/or HDB unless it is demonstrated that the restriction of such land will not detrimentally affect the growth of the community involved for the succeeding 10 years, that the property in question has special public values for open space, conservation, other comparable uses, or that the contract is consistent with the publicly desirable future use and control of the land in question. If proposed within a UDB of an incorporated city, the County shall give written notice to the affected city pursuant to Government Code §51233.
- AG-1.10: The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services



- should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.
- AG-1.11: The County shall examine the feasibility of employing agricultural buffers between
  agricultural and non-agricultural uses, and along the edges of UDBs and HDBs. Considering
  factors include the type of operation and chemicals used for spraying, building orientation,
  planting of trees for screening, location of existing and future rights-of-way (roads, railroads,
  canals, power lines, etc.), and unique site conditions.
- LU-1.8: The County shall encourage and provide incentives for infill development to occur in communities and hamlets within or adjacent to existing development in order to maximize the use of land within existing urban areas, minimize the conversion of existing agricultural land, and minimize environmental concerns associated with new development.
- LU-2.1: The County shall maintain agriculturally-designated areas for agriculture use by directing urban development away from valuable agricultural lands to cities, unincorporated communities, hamlets, and planned community areas where public facilities and infrastructure are available.
- PF-1.2: The County shall ensure that urban development only takes place in the following areas:
  - Within incorporated cities and CACUDBs
  - Within the UDBs of adjacent cities in other counties, unincorporated communities, planned community areas, and HDBs of hamlets
  - Within foothill development corridors as determined by procedures set forth in Foothill
     Growth Management Plan
  - Within areas set aside for urban use in the Mountain Framework Plan and the mountain sub-area plans; and
  - Within other areas suited for non-agricultural development, as determined by the procedures set forth in the Rural Valley Lands Plan.
- PF-1.3: The County shall encourage those types of urban land uses that benefit from urban services to develop within UDBs and HDBs. Permanent uses which do not benefit from urban services shall be discouraged within these areas. This shall not apply to agricultural or agricultural support uses, including the cultivation of land or other uses accessory to the cultivation of land provided that such accessory uses are time-limited through Special Use Permit procedures.
- PF-1.4: The County shall encourage urban development to locate in existing UDBs and HDBs where infrastructure is available or may be established in conjunction with development. The County shall ensure that development does not occur unless adequate infrastructure is available, that sufficient water supplies are available or can be made available, and that there are adequate provisions for long term management and maintenance of infrastructure and identified water supplies.



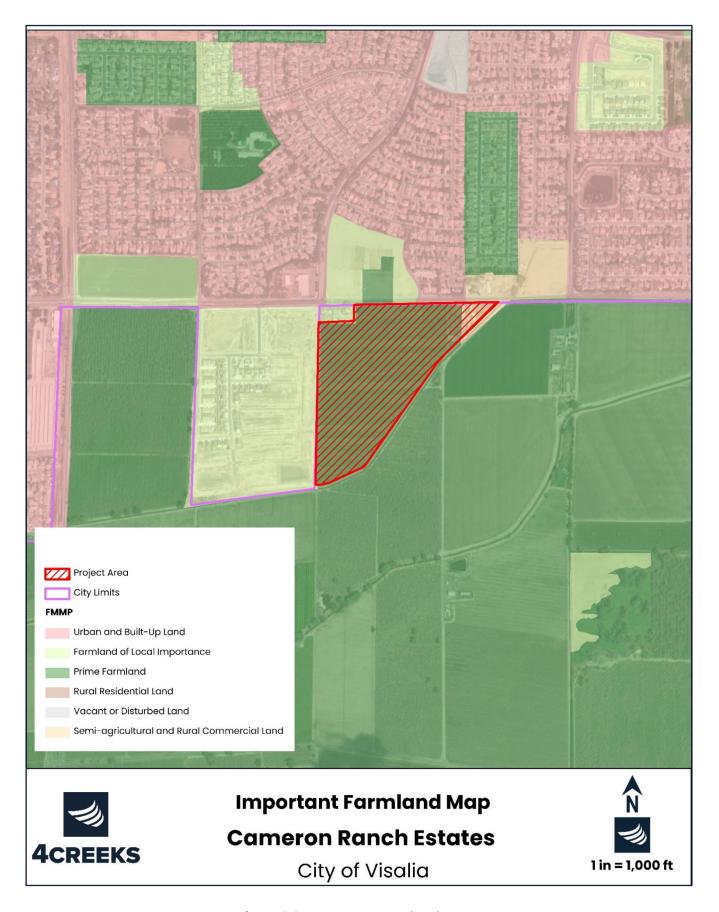


Figure 1-1: Important Farmland Map



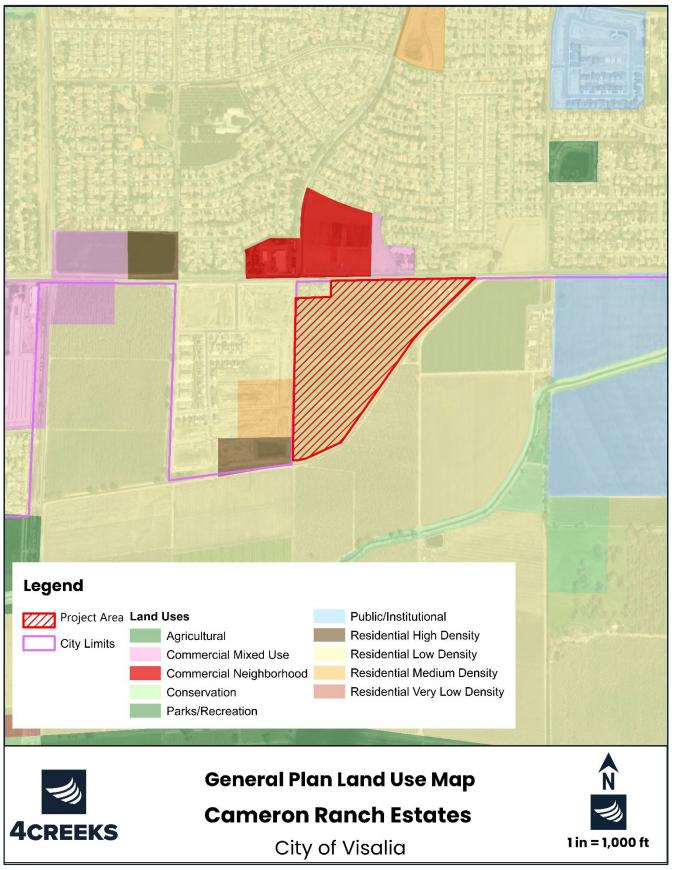


Figure 1-2: Land Use Map



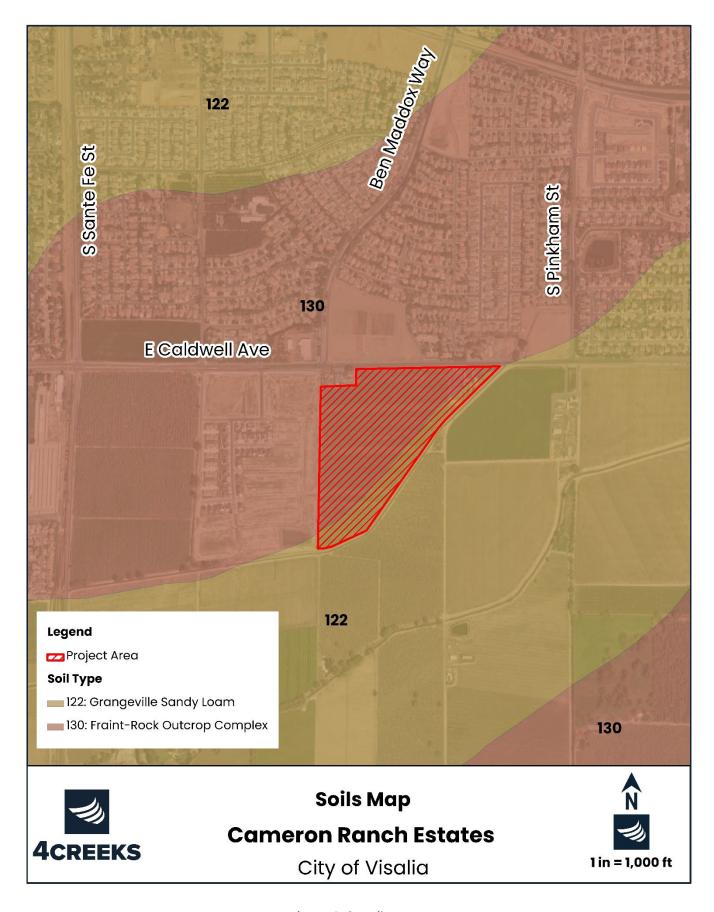


Figure 1-3: Soils Map



## **Appendix F**

Biochemical Oxygen Demand and Total Suspended Solids Calculations



April 26, 2024
Community Development Department
Planning Department
315 E. Acequia Ave.
Visalia, CA 93291

Re: Cameron Ranch Estates – Biochemical Oxygen Demand and Total Suspended Solids Calculations

To Whom It May Concern,

We have prepared the calculations below using the best available standards and practices that were able to find. Our calculations reference a report prepared by Provost and Prichard titled Local Discharge Limits Development, that was prepared for the City of Visalia in March 2011, see Appendix A. We have also utilized the City of Visalia's Sewer Master Plan, December 2005, to calculate an assumed volume of effluent for the proposed project. See below for the equation that will be utilized to calculate the assumed BOD and TSS that will be generated by the proposed project.

### Equation 1 - AHL based on WDR limits

$$AHL_{wdr} = \frac{(8.34)(C_{wdr})(Q_{wwtf})}{(1-R_{wwtf})}$$

Where:

AHL<sub>wdr</sub> = AHL based on WDR limit, lb/day

Cwdr = WDR permit limit, mg/L

Qwwtf = WWTF average flow rate, MGD

Rwwtf = Plant removal efficiency, as decimal

8.34 = Conversion factor

Table 3-2 shows the allowable headworks loading for the POCs based upon the limitations contained in the WDR.

Table 3-2: WDR Based AHLs

	WWTF	WDR	Select	Removal	Allowable
Pollutant	Flow	Limit	Removal	Efficiency	Headworks
	(MGD)	(mg/l)	Efficiency	(%)	(lbs/day)
	(Qwwtf)	(Cwdr)	(from list)	(Rwwtf)	
Lead	12.18	0.05	User Entered	62.19	13.434
Ammonia	12.18	25	User Entered	43.89	4525.7652
BOD	12.18	30	User Entered	98.81	256354.5218
TSS	12.18	30	User Entered	98.65	226555.1037





Cameron Ranch Estates is a new project being proposed by Artemis Partners LLC. The project is Located on the southeast corner of Ben Maddox and Caldwell Avenue. The project is proposing to develop 43.6 Gross Acres into a residential subdivision. Using Table 3.4 from the City of Visalia's Sewer Master Plan, the expected flow rates can be calculated using the Adjusted Flow Coefficients that have been provided.

Table 3.4 Average	Sewer Flow C	oefficients												
	Sewer System Master Plan City of Visalia													
Land Use Designation	Land Use Code	Urban Development Boundary <sup>1,2</sup>	Existing Sewered Service Area 3,4	% of Total Service Area	1994 Flow Coeff <sup>5</sup>	Calculated Flows	Adjusted Flow Coefficient	2003 ADWF Balance	% of Total ADWF					
		(ga)	(ga)	(%)	(gpd/ga)	(gpd)	(gpd/ga)	(gpd)	(%)					
Residential														
Rural	RA	1,007	413	2%	500	206,390	400	165,112	1%					
Low Density	RLD	14,138	8,423	43%	1,000	8,422,750	800	6,738,200	55%					
Medium Density	RMD	879	536	3%	1,800	964,296	1,300	696,436	6%					
High Density	RHD	315	165	1%	2,500	413,200	2,000	330,560	3%					
Commercial														
Commercial	COM	3,499	2,183	11%	1,000	2,183,180	650	1,419,067	12%					

Table 1: Breakdown of Land Use for Phase 1

Land Use	Acreage	Adjusted Flow Coefficient	Expected Flow	Unit
Low Density Residential	43.6	800	34880	GPD
Total Expected Flow: 34880 GPD				

Utilizing the equation and coefficients previously provided, we can calculate BOD as Follows:

$$AHL_{wdr} = \frac{(8.34)(C_{wdr})(Q_{wwtf})}{(1 - R_{wwtf})}$$

Where:

$$C_{wdr} = 30$$

$$Q_{wwtf} = .048 \, MGD$$

$$R_{wwtf} = .9881$$

$$BOD = 733.36 Lb/Day$$



Utilizing the equation and coefficients previously provided, we can calculate TSS as Follows

$$AHL_{wdr} = \frac{(8.34)(C_{wdr})\left(Q_{wwtf}\right)}{\left(1-R_{wwtf}\right)}$$

Where:

$$C_{wdr} = 30$$

$$Q_{wwtf} = .048 MGD$$

$$R_{wwtf} = .9865$$

$$TSS = 646.44 Lb/Day$$

Please review the calculations provided and if there are any additional questions or information needed, please feel free to contact me at (559)802-3052.

Jonathan J. Frausto Project Manager