

CITY OF FRESNO

PALMS AT ALLUVIAL

ADMINISTRATIVE DRAFT INITIAL STUDY/MITIGATED
NEGATIVE DECLARATION FOR ENVIRONMENTAL
ASSESSMENT NO. T-6402/P21-06440/P22-
00795/P21-06515

SEPTEMBER 23 2022

PREPARED FOR:

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ACRONYMS

AAM	Annual arithmetic mean
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
AF	Acre-feet
AF/yr	acre feet per year
AFY	acre feet per year
AHERA	Asbestos Hazard Emergency Response Act
ALUCP	Airport Land Use Compatibility Plan
APE	Area of Potential Effect
APCD	Air Pollution Control District
AQMD	Air Quality Management District
AQP	Air Quality Plan
ATP	Active Transportation Plan
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model (software)
CalEPA	California Environmental Protection Agency
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department Of Forestry And Fire Protection
CalGreen	California's Green Building Code
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDHP	California Department of Public Health
CEC	California Energy Commission
CESA	California Endangered Species Act
CFC	Chlorofluorocarbons

CFR	Code of Federal Regulations
CH ₄	Methane
CHL	California Historical Landmark
CHRIS.....	California Historical Resources Information System
City	City of Fresno
CLG	Certified Local Government
CNDDb.....	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e.....	carbon dioxide-equivalents
COG	Council of Governments
Cortese	Hazardous Waste and Substances Sites List
CPHI	California Points of Historical Interest
CRHR.....	California Register of Historical Resources
CTS	California Tiger Salamander
CUP	Conditional Use Permit
CUSD.....	Clovis Unified School District
CWA	Clean Water Act
dB	decibels
dba	A-weighted decibels
DOC	California Department of Conservation
DOT	Department of Transportation
DPU	Department of Public Utilities
DTSC.....	Department of Toxic Substances Control
EAP	Energy Action Plan
EE	Energy Efficiency Programs
EFZ	Earthquake Fault Zones
EIR	Environmental Impact Report
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FEMA.....	Federal Emergency Management Agency

FGC	Fish and Game Code
FMFCD.....	Fresno Metropolitan Flood Control District
FMC	Fresno Municipal Code
FMMP.....	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
Fresno COG	Fresno Council of Governments
FTA	Federal Transit Administration
GC	Government Code
GHG	Greenhouse Gas
GIS	Geographic Information System
GP	General Plan
GPA	General Plan Amendment
GP PEIR.....	General Plan Program EIR
GSA	Groundwater Sustainability Agency
GWP	Global Warming Potential
HAPs	Hazardous Air Pollutants
HHDT	Heavy-heavy duty truck
HSC	Health and Safety Code
HUC	Hydrologic Unit Code
IS	Initial Study
IS/MND.....	Initial Study/Mitigated Negative Declaration
ITP	Incidental Take Permit
IWMP.....	Integrated Waste Management Plans
L _{dn}	Day-Night Average Sound Level
km	kilometers
MBTA.....	Migratory Bird Treat Act
MCL	maximum contaminant levels
MGD	million gallons per day
MLD	Most Likely Descendant
MMRP.....	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MTCO ₂ e	Metric tons of carbon dioxide equivalent

N ₂ O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
ND	Negative Declaration
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic and Safety Administration
NO _x	Nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
O ₃	Ozone
OHP	California Office of Historic Preservation
OITC	Outdoor/Indoor Transmission Class
PG&E	Pacific Gas and Electric Company
PM ₁₀	particulate matter 10 microns in size
PM _{2.5}	particulate matter 2.5 microns in size
ppb	parts per billion
ppm	parts per million
Project	Palms at Alluvial
PRC	Public Resources Code
ROG	Reactive organic gases
RTP	Regional Transportation Plan
RWRF	Regional Wastewater Reclamation Facility
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SARA-III	Title III of the Federal Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCS	Sustainable Communities Strategy
SDC	a Seismic Design Category
SDWA	Safe Drinking Water Act
SGMA	Sustainable Groundwater Management Act

SHMP.....	State of California Multi-Hazard Mitigation Plan
SIP	State Implementation Plan
SJVAB.....	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SJV Basin.....	San Joaquin Valley Groundwater Basin
SLF	Sacred Lands File
SO ₂	Sulfur dioxide
SPAL	Small Project Analysis Level
SR	State Route
SRA	State Responsibility Area
SSJVIC	Southern San Joaquin Valley Information Center
STC	Sound Transmission Class
SWPPP	Storm Water Pollution Prevention Plan
SWRCB.....	State Water Resources Control Board
TAC	Toxic Air Contaminant
TIP	Transportation Improvement Program
TSCA	Toxic Substances Control Act
USACE.....	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFWS.....	United States Fish and Wildlife Service
USGS.....	United States Geological Survey
UST	Underground Storage Tanks
UWMP	Urban Water Management Plan
µg/m ³	micrograms per cubic meter
VdB	vibration velocity decibels
VMT	Vehicle Miles Traveled
ZEV	Zero Emissions Vehicle

CHAPTER 1 INTRODUCTION

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of the City of Fresno to address the environmental effects of the Palms at Alluvial Project (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 21000, *et seq.* The City of Fresno is the CEQA lead agency for this Project.

The site and the Project are described in detail in [Chapter 2 Project Description](#).

1.1 REGULATORY INFORMATION

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, *et seq.*)-- also known as the CEQA Guidelines--Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is no substantial evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed Project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or *mitigated* ND shall be prepared for a project subject to CEQA when either:

- a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or
- b. The IS identified potentially significant effects, but:
 1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and
 2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project as *revised* may have a significant effect on the environment.

1.2 DOCUMENT FORMAT

This IS/MND contains six chapters. [Chapter 1 Introduction](#), provides an overview of the Project and the CEQA process. [Chapter 2 Project Description](#), provides a detailed description of proposed Project components and objectives. [Chapter 3 Determination](#), the Lead Agency's determination based upon this initial evaluation. [Chapter 4 Environmental Impact Analysis](#) presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. [Chapter 5 Mitigation, Monitoring, and Reporting](#) Program (MMRP), provides the

proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation. **Chapter 6 References** details the documents and reports this document relies upon to provide its analysis.

The CalEEMod Output Files, Biological Resources Information, Cultural Resources Information, Vehicle Miles Traveled Memo, and Development Plans are provided as technical **Appendix A: CalEEMod Output Files, Appendix B: Biological Evaluation, Appendix C: Cultural Resources, Appendix D: Vehicle Miles Traveled Memo, and Appendix E: Development Plans**, respectively, at the end of this document.

CHAPTER 2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

2.1.1 Project Title

Palms at Alluvial

2.1.2 Lead Agency Name and Address

City of Fresno
Planning and Development Department
2600 Fresno Street, Room 3043
Fresno, CA 93721

2.1.3 Contact Person and Phone Number

Lead Agency Contact

Robert Holt
Planner III
(559) 621-8277

CEQA Consultant

Provost & Pritchard Consulting Group
Jeff O’Neal, Environmental Project Manager
(559) 449-2700

2.1.4 Project Location

The Project is located in Fresno, California, approximately 150 miles southeast of Sacramento and 150 miles northwest of Bakersfield (see [Figure 2-1](#)). The Project site is located on Assessor’s Parcel Number 404-500-29 on the north side of E. Alluvial Avenue approximately 650 feet west of N. Willow Avenue. The centroid of the Project site is 36° 50’ 45.36” N, 119° 43’ 56.41” W.

2.1.5 General Plan Designation and Zoning

Project Area	General Plan Designation	Zoning District
ONSITE	Low-Density Residential	RS-3 (Residential Single-Family, Low Density)

2.1.6 Description of Project

The Project proposes the development of 28 dwellings on an approximately 3.06-acre parcel. The Project includes a General Plan Amendment (GPA), a Rezone, a Tentative Tract Map, a Planned Development, and a Conditional Use Permit (CUP). The GPA proposes to change the site’s planned land use from Low Density

Residential (1-3.5 du/ac) to Medium Density Residential (5-12 du/ac). The Rezone would change the site's existing zoning from RS-3 (Residential, Single-Family, Low Density) to RS-5 (Residential, Single-Family, Medium Density). The CUP would allow the proposed 28-unit multi-family development within the RS-5 Zone District. The Tentative Tract Map would subdivide the property into 14 duplex lots and 1 common area lot. A Planned Development Permit would allow for private gates and streets, and reduced setbacks.

The relevant entitlements for the Project are as follows:

- Vesting Tentative Tract Map No. 6402
- Plan Amendment-Rezone Application No. P21-06440
- Planned Development Permit Application No. P22-00795
- Conditional Use Permit No. P21-06515

2.1.7 Site and Surrounding Land Uses and Setting

Table 2-1: Existing Uses, General Plan Designation, & Zone Districts of Surrounding Properties

Direction from Project Site	Existing Use	General Plan Designation	Zone District
NORTH	Single-Family Residential	Medium Low Density Residential	RS-4/UGM (Residential, Single-Family, Medium Low Density/Urban Growth Management)
EAST	Apartment complex	Medium High Density Residential	RM-1/UGM/cz (Residential Multi-Family, Medium High Density/Urban Growth Management/conditions of zoning)
	Single-Family Residential	Medium Density Residential	RS-5 (Residential, Single-Family, Medium Density)
SOUTH	Rural Residential	Low Density Residential	Rural Residential (Fresno County)
WEST	Hospice Facility	Low Density Residential	RS-3 (Residential, Single-Family, Low Density)
	Single-Family Residential	Medium Low Density Residential	RS-4(Residential, Single-Family, Medium Low Density)

2.1.8 Other Public Agencies Whose Approval May Be Required

Fresno Metropolitan Flood Control District
Fresno Irrigation District
State Water Resources Control Board

2.1.9 Consultation with California Native American Tribes

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 Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias. Fresno County has a number of Rancherias such as Table Mountain Rancheria, Millerton Rancheria, Big Sandy Rancheria, Cold Springs Rancheria, and Squaw Valley Rancheria. 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.

Pursuant to Assembly Bill 52 (AB 52), the Table Mountain Rancheria Tribe and the Dumna Wo Wah were invited to consult under AB 52. The City of Fresno mailed notices of the Project to each of these tribes on June 22, 2022 which included the required 30-day time period for tribes to request consultation, which ended on September 23, 2022. No tribes elected to consult on the Project.

Pursuant to Senate Bill 18 (SB 18), Native American tribes traditionally and culturally affiliated with the project area were invited to consult regarding the project based on a list of contacts provided by the Native American Heritage Commission (NAHC). The City of Fresno mailed notices of the proposed project to each of these tribes on June 22, 2022 which included the required 90-day time period for tribes to request consultation, which ended on September 23, 2022.

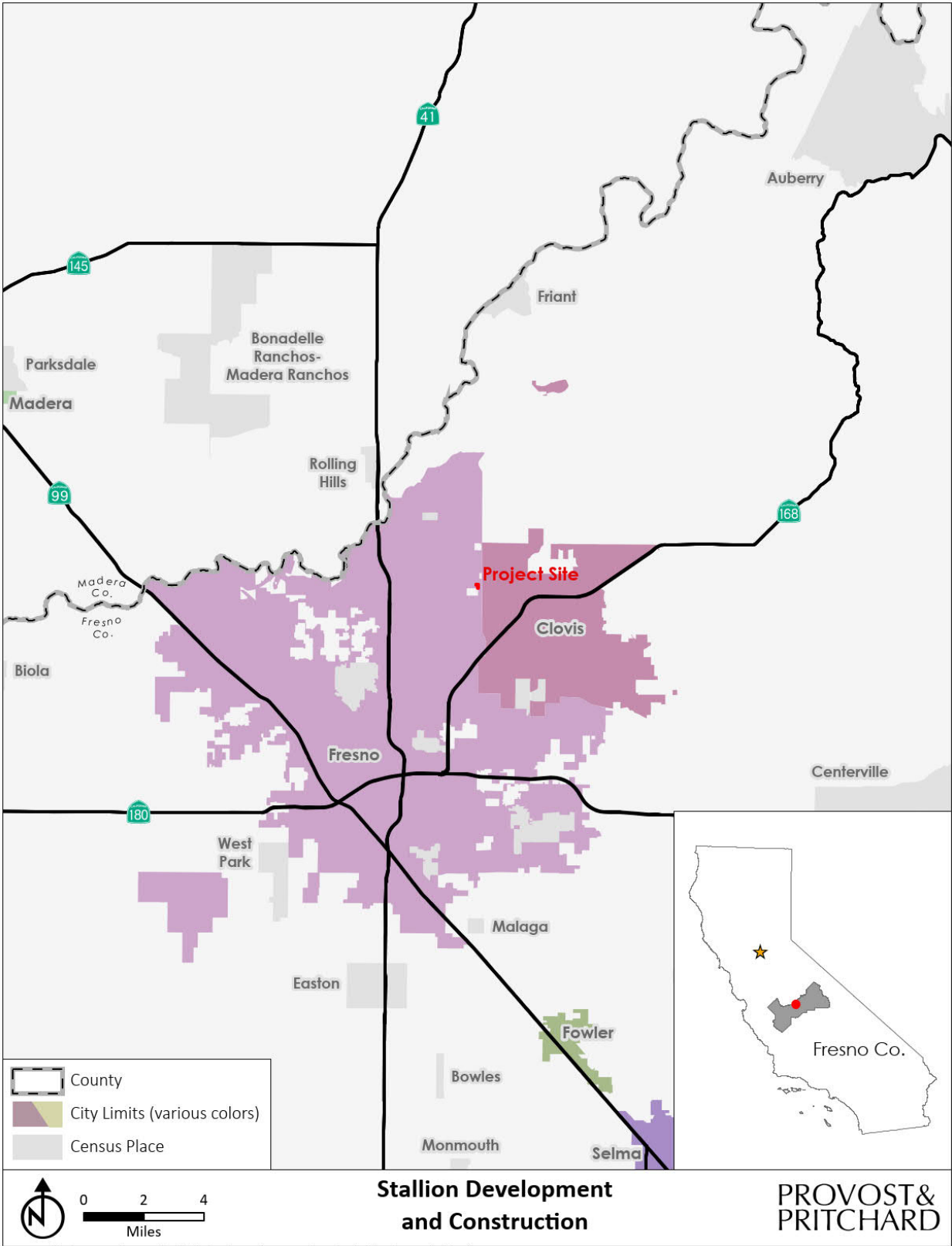


Figure 2-1: Regional Location



Figure 2-2: Project Aerial

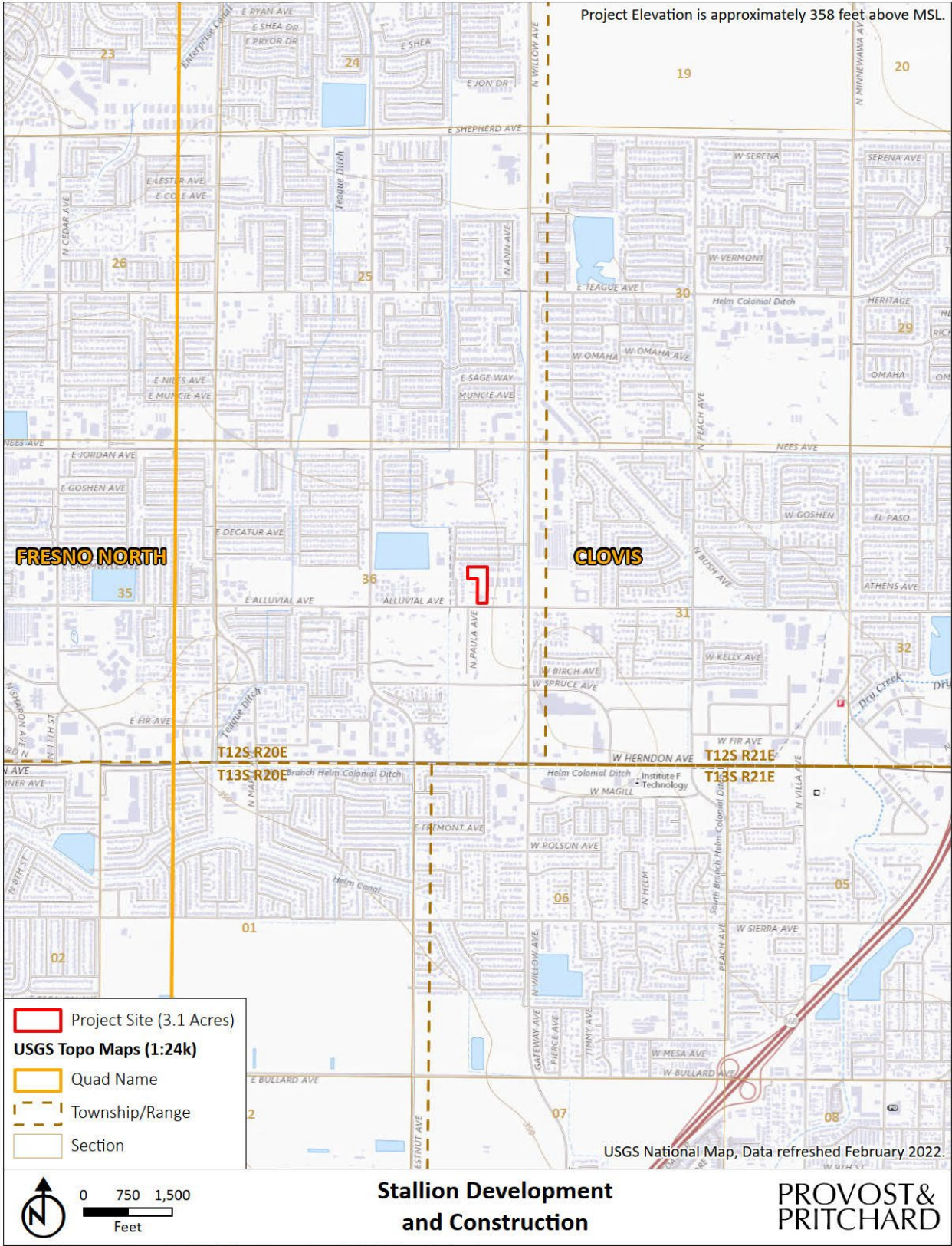


Figure 2-3: Topographic Map

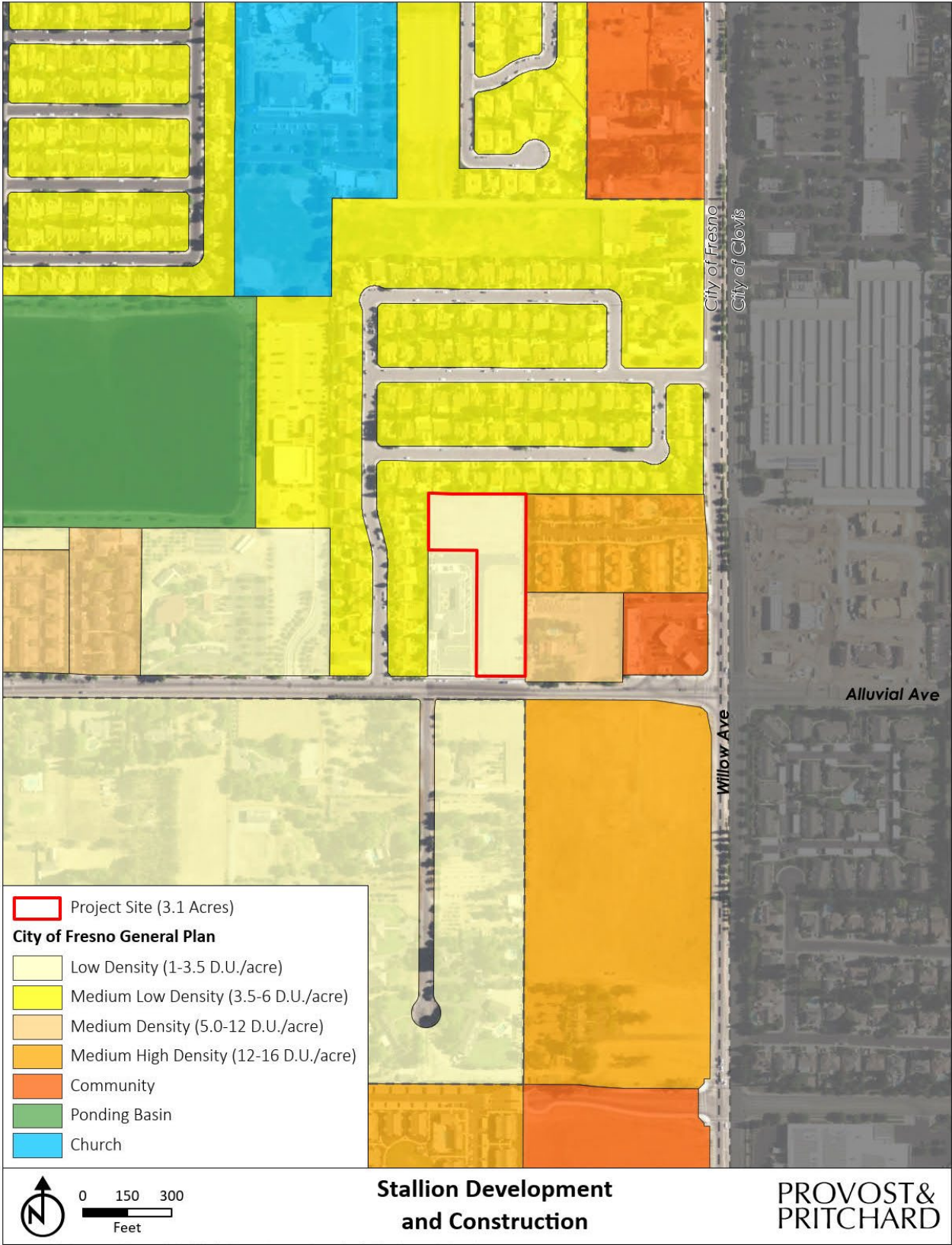


Figure 2-4: General Plan Land Use Designation Map

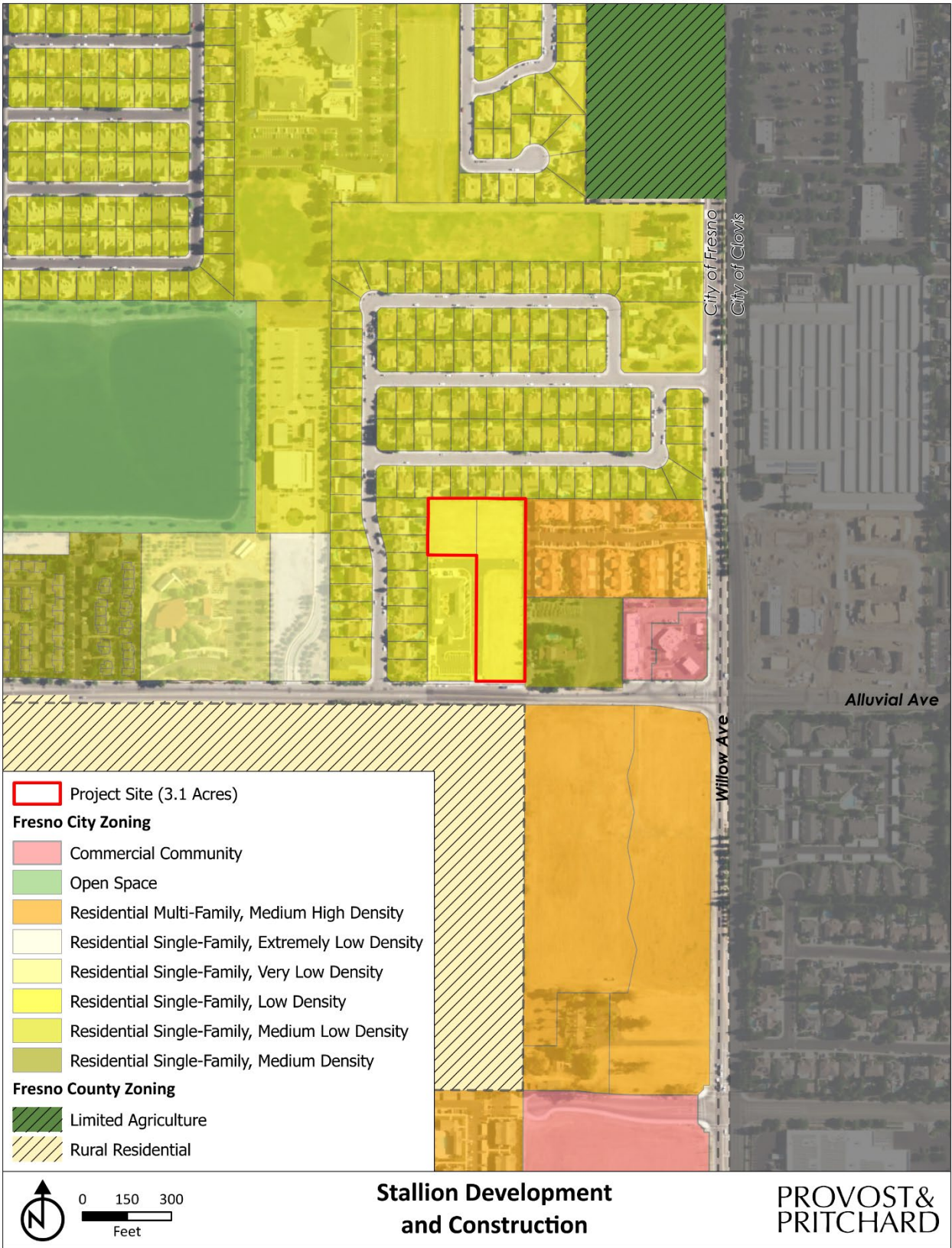


Figure 2-5: Zone District Map

CHAPTER 3 DETERMINATION

3.1 POTENTIAL ENVIRONMENTAL IMPACTS

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Chapter, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

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

The analyses of environmental impacts in **Chapter 4 Impact Analysis** result in an impact statement, which shall have the following meanings.

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less than Significant with Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less than Significant Impact.” For purposes of this Initial Study “mitigation incorporated into the project” means mitigation originally described in the General Plan Program EIR (GP PEIR) and applied to an individual project, as well as mitigation developed specifically for an individual project. The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less than Significant Impact. This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (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).

3.2 DETERMINATION

On the basis of this initial evaluation (to be completed by the Lead Agency):

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

Robert Holt, Planner III

09/23/2022

Date

CHAPTER 4 ENVIRONMENTAL IMPACT ANALYSIS

4.1 AESTHETICS

Table 4-1: Aesthetics Impacts

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.1.1 Baseline Conditions

Scenic vistas are areas that are considered to be a viewpoint, either naturally occurring or man-made, that would be pleasing to the general public and as a result provides a benefit to the area. Within the Fresno area, scenic vistas include points along the San Joaquin River, views of the Sierra Nevada Mountain Range, views of the downtown Fresno skyline, and historic buildings, many of which are located downtown. Such resources provide a visual benefit to those who have access to them. The Project site is a vacant lot in northeast Fresno largely surrounded by a block wall separating it from existing development to all sides with the exception of the hospice facility. The Project site fronts E. Alluvial Avenue to the south and is approximately 650 feet west of N. Willow Avenue; neither street is a scenic corridor. The nearest officially designated State Scenic Highway is located more than 35 miles northeast of the Project site. The Project site is undeveloped and is surrounded single- and multifamily dwellings and a hospice facility. There are no historic buildings located on or near the Project site.

4.1.2 Applicable Regulations

There are no regulations, plans, programs, or guidelines associated with aesthetics that are applicable to the Project.

4.1.3 Impact Analysis

a) Have substantial adverse effect on a scenic vista?

No Impact. The Project would not have a substantial adverse effect on a scenic vista. The Project is located in an urbanized environment surrounded by existing residential uses and a hospice facility. The Project would not obstruct any scenic views as none presently exist. Therefore, there would be no impact.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Project site is not located near a designated State Scenic Highway. The Project site does not contain any scenic resources, nor are there any scenic resources within proximity. The Project would not result in any destruction of scenic resources. Therefore, there would be no impact.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The Project is located in the City of Fresno, an urbanized area. The architectural renderings, elevations, and color schemes would be developed in a manner not to degrade the existing visual character. The development would comply with the requirements of the RS-5 zone district, which contains provisions related to massing (i.e., building height and lot coverage) but none specific to scenic quality. The existing block wall surrounding most of the parcel would remain. Along the west side of the Project Site abutting the hospice facility (where no wall exists), a seven-foot tall split-face block wall would be constructed consistent with the Fresno Municipal Code (FMC). Although the proposed reduction to required setbacks would result in buildings situated closer together and could therefore potentially block views, the lack of any scenic vistas of importance indicates that impacts would be less than significant.

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

Less than Significant Impact with Mitigation Incorporated. Development of the site will create a new source of light or glare within the area, consisting of building-attached (e.g., porch lights, patio lights) and parking area lighting. However, the Project site is surrounded by existing urban development that already affects daytime and nighttime views in the Project area. Implementation of Mitigation Measure **AES-1**, a requirement to direct lighting to parking areas and away from adjacent residential land uses, will ensure that impacts are less than significant.

4.1.4 Mitigation

- AES-1** Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Table 4-2: Agriculture and Forest Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.2.1 Baseline Conditions

The Project site consists of vacant graded land that is not in agricultural production and is not under Williamson Act contract.

Based upon the 2018 Rural Land Mapping Edition: Fresno County Important Farmland Map of the State of California Department of Conservation designates the project site as Rural Residential.¹ (see [Figure 4-1](#)).

4.2.2 Applicable Regulations

Federal

The Farmland Protection Policy Act (FPPA): The FPPA was enacted to minimize the impact of federal programs on the unnecessary conversion of farmland to non-agricultural uses. To the extent possible, the FPPA ensures that federal programs are administered to be consistent with state and local regulations to

¹ (California Department of Conservation 2019)

protect farmland. This act does not authorize the federal government to regulate the use of private or non-federal land. For the purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

State

Farmland Mapping and Monitoring Program (FMMP): The FMMP produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance.

The California Department of Conservation's (DOC) 2018 FMMP is a non-regulatory program that produces "Important Farmland" maps and statistical data used for analyzing impacts on California's agricultural resources. The Important Farmland maps identify eight land use categories, five of which are agriculture-related: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land – rated according to soil quality and irrigation status. Each applicable category is summarized below:

- **FARMLAND OF LOCAL IMPORTANCE (L):** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- **OTHER LAND (X):** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Land Conservation Act of 1965 (Williamson Act): The California Land Conservation Act, better known as the Williamson Act, has acted as the State's agricultural land protection program since its enactment in 1965. Fundamentally, the Williamson Act is a State policy administered by local governments, who enter into agreements with local landowners. In return, the landowners receive property tax assessments based on farming and open space uses, as opposed to full market value, thus resulting in a lower tax burden. Local governments are not mandated to administer the Act, but those that do have some latitude to tailor the program to suit local goals and objectives. The purpose of the Williamson Act is to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. In general, the minimum preserve size is 100 acres, and the minimum standard contract size for the county of Fresno is 20 acres on Prime Farmland and 40 acres on non-prime farmland within a preserve. The Williamson Act has a minimum contract size of 10 acres. Williamson Act contracts have a minimum term of 10 years, with renewal occurring automatically each year (local governments can establish initial contract terms for longer periods of time). The Williamson Act contracts run with the land and are binding on all successors in interest of the landowner. Only land located within an agricultural preserve is eligible for Williamson Act contracts. An agricultural preserve defines the boundary of an area within which a city or county can enter into contracts with landowners. The boundary is designated by resolution of the board of supervisors or city council having jurisdiction. The rules of each agricultural preserve specify the uses allowed. Generally, any commercial agricultural uses would be permitted within any agricultural preserve. In addition, local governments may identify compatible uses allowed with a use permit. The landowner can petition to cancel a contract, although the presiding jurisdiction must make a finding based on substantial evidence that supports the cancellation of the contract; either party to a

contract may unilaterally choose to non-renew the contract, which results in a cessation of the automatic renewal. The contract then expires without further action once the remaining years have elapsed.

Local

City of Fresno General Plan. The General Plan is a set of goals, objectives, and policies that form a blueprint for the physical development of the city. The following objective and policies related to agricultural resources are presented in the General Plan:

- **Objective RC-9.** Preserve agricultural land outside of the area planned for urbanization under this General Plan.
- **Policy RC-9-a.** Work to establish a cooperative research and planning program with the counties of Fresno and Madera, City of Clovis, and other agencies to conserve agricultural land resources.
- **Policy RC-9-b.** Express opposition to residential and commercial development proposals in unincorporated areas within or adjacent to the Planning Area when these proposals would do any of the following:
 - Make it difficult or infeasible to implement the General Plan;
 - Contribute to the premature conversion of agricultural, open space, or grazing lands; or
 - Constitute a detriment to the management of resources and/or facilities important to the region (such as air quality, water quantity and quality, traffic circulation, and riparian habitat).
- **Policy RC-9-c. Farmland Preservation Program.** In Coordination with regional partners or independently, establish a Farmland Preservation Program. When Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is converted to urban uses outside City limits, this program would require that the developer of such a project mitigate the loss of farmland consistent with the requirements of CEQA. The Farmland Preservation Program shall provide several mitigation options that may include, but are not limited to the following: Restrictive Covenants or Deeds, In Lieu Fees, Mitigation Banks, Fee Title Acquisition, Conservation Easements, Land Use Regulations, or any other mitigation method that is in compliance with the requirements of CEQA. The Farmland Preservation Program may be modeled after some of all of the programs described by the California Council of Land Trusts.

4.2.3 Impact Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. Pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, the subject property is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; therefore, the Project would not convert Farmland to non-agricultural use. There would be no impact.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The subject property is not zoned for agricultural use, and it is not subject to a Williamson Act agricultural land conservation contract. Therefore, the Project will not affect existing agriculturally-zoned or Williamson Act contract parcels. There would be no impact.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project is not within the vicinity of a forest as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). According to the City of Fresno General Plan, the Planning Area does not include any land used or designated for timber, forest land, or timber harvesting industry. Therefore, the Project would not conflict with existing zoning for, or cause rezoning of, forest land. There would be no impact.

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

No Impact. As discussed above in Impact Assessment “c”, the Project is not within the vicinity of a forest as defined in PRC Section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code [GC] section 51104(g)). According to the City of Fresno General Plan, the Planning Area does not include any land used or designated for timber, forest land, or timber harvesting industry. Therefore, the Project would not result in the loss of forest land or conversion of forest land to non-forest use. There would be no impact.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project consists of urban development on land substantially surrounded by existing urban development. The Project would not involve additional changes to the existing environment that would change the nature of or location such that it would lead to conversion of farmlands to non-agricultural uses. Furthermore, the Project would not convert forest lands to non-forest uses. Therefore, there would be no impact.

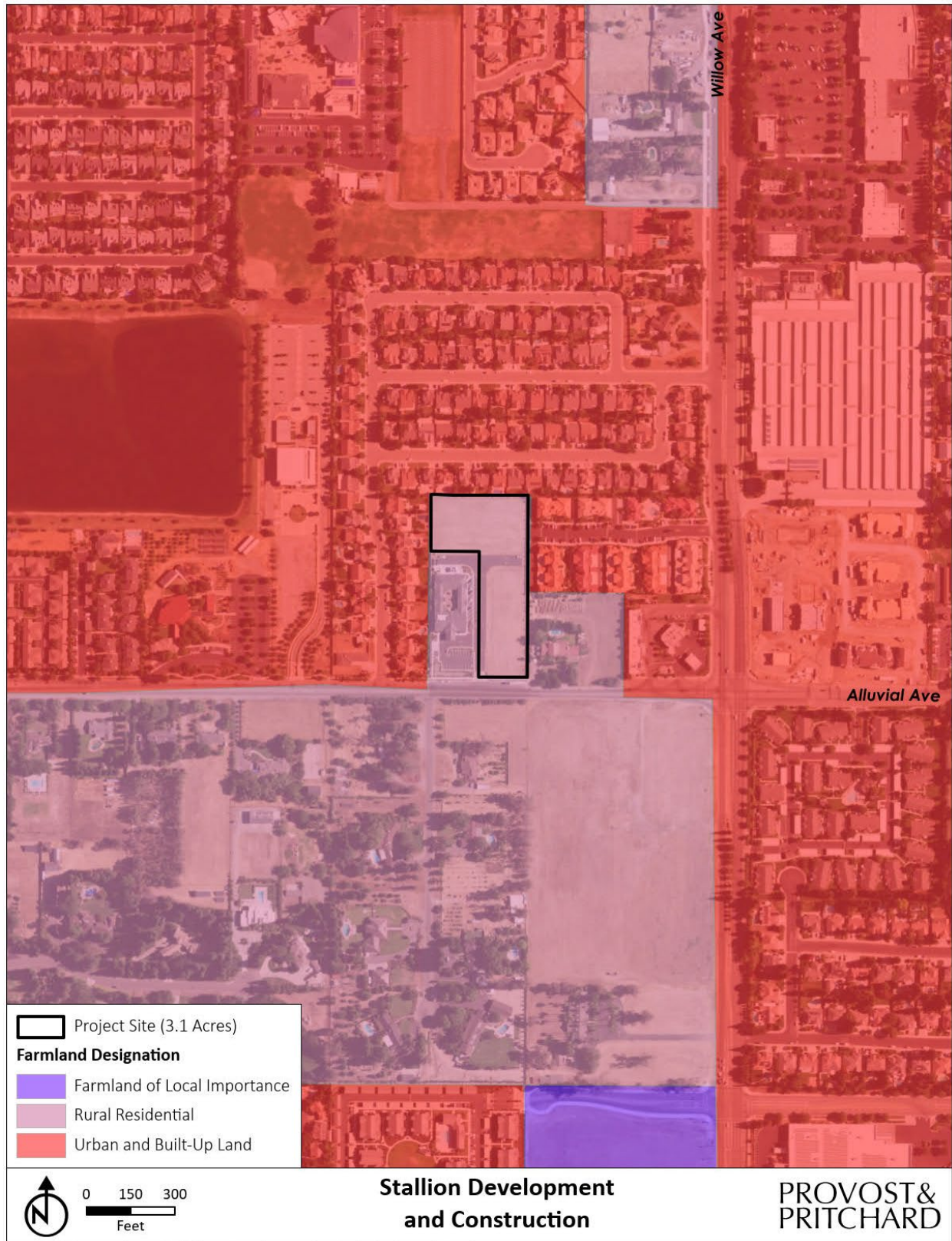


Figure 4-1: Farmland Map

4.3 AIR QUALITY

Table 4-3: Air Quality Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.3.1 Baseline Conditions

Regulatory Attainment Designations

Under the California Clean Air Act (CCAA), the California Air Resource Board (CARB) is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The Environmental Protection Agency (EPA) designates areas for ozone, Carbon Monoxide (CO), and Nitrogen Dioxide (NO₂) as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For SO₂, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ standards. All other areas are designated “unclassified.”

The State and national attainment status designations pertaining to the SJVAB are summarized in [Table 4-4](#). SJVAB is currently designated as a nonattainment area with respect to the State PM₁₀ standard, ozone, and

PM_{2.5} standards. The SJVAB is designated nonattainment for the National Ambient Air Quality Standards (NAAQS) 8-hour ozone and PM_{2.5} standards. On September 25, 2008, the EPA re-designated the San Joaquin Valley to attainment status for the PM₁₀ NAAQS and approved the PM₁₀ Maintenance Plan.

Table 4-4: Summary of Ambient Air Quality Standards and Attainment Designation

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
Ozone (O ₃)	1-hour	0.09 ppm	Nonattainment/ Severe	–	No Federal Standard
	8-hour	0.070 ppm	Nonattainment	0.075 ppm	Nonattainment (Extreme)**
Particulate Matter (PM ₁₀)	AAM	20 µg/m ³	Nonattainment	–	Attainment
	24-hour	50 µg/m ³		150 µg/m ³	
Fine Particulate Matter (PM _{2.5})	AAM	12 µg/m ³	Nonattainment	12 µg/m ³	Nonattainment
	24-hour	No Standard		35 µg/m ³	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment/ Unclassified	35 ppm	Attainment/ Unclassified
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO ₂)	AAM	0.030 ppm	Attainment	53 ppb	Attainment/ Unclassified
	1-hour	0.18 ppm		100 ppb	
Sulfur Dioxide (SO ₂)	AAM	–	Attainment	--	Attainment/ Unclassified
	24-hour	0.04 ppm		--	
	3-hour	–		0.5 ppm	
	1-hour	0.25 ppm		75 ppb	
Lead (Pb)	30-day Average	1.5 µg/m ³	Attainment	–	No Designation/ Classification
	Calendar Quarter	–		--	
	Rolling 3-Month Average	–		0.15 µg/m ³	
Sulfates (SO ₄)	24-hour	25 µg/m ³	Attainment	No Federal Standards	
Hydrogen Sulfide (H ₂ S)	1-hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride (C ₂ H ₃ Cl)	24-hour	0.01 ppm (26 µg/m ³)	Attainment		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/km-visibility of 10 miles or more due to particles when the relative humidity is less than 70%.	Unclassified		

Criteria Pollutants

California's ambient air monitoring network is one of the most extensive in the world, with more than 250 sites and 700 individual monitors measuring air pollutant levels across a diverse range of topography, meteorology, emissions, and air quality. Existing levels of ambient air quality and historical trends and projections in the Project are best documented by measurements made by these monitoring sites. The nearest monitoring site to the Project is located at the Fresno-Garland Monitoring Station at 3727 North First Street in Fresno, CA.

The site measures O₃, PM₁₀, and PM_{2.5}. Data presented in [Table 4-5](#) summarize monitoring data from the CARB's Aerometric Data Analysis and Management System for the Fresno-Garland Monitoring Station location published from 2018 to 2020.

Table 4-5: Ambient Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2018	2019	2020
Ozone (O ₃)	1-hour	Max 1 Hour (ppm)	0.121	0.105	0.119
		Days > State Standard (0.09 ppm)	8	2	0
	8-hour	Max 8 Hour (ppm)	.099	.084	.099
		Days > State Standard (0.070 ppm)	38	18	¹
		Days > National Standard (0.070 ppm)	36	17	¹
Inhalable coarse particles (PM ₁₀)	Annual	State Annual Average (µg/m ³)	40.6	35.9	¹
	24-hour	National 24 Hour (µg/m ³)	298.4	174.2	211.7
		Days > State Standard (50 µg/m ³)	130.4	328.2	296.0
		Days > National Standard (150 µg/m ³)	0	3	13
Fine particulate matter (PM _{2.5})	Annual	National Annual Average (µg/m ³) ¹	16.6	11.2	19.8
	24-hour	24 Hour (µg/m ³)	95.7	51.3	171.8
		Days > National Standard (35 µg/m ³)	36	10	¹
Carbon Monoxide (CO)	1-hour	1 Hour (ppm)	2.1	1.9	5.0
	8-hour	8 Hour (ppm)	2.0	1.5	2.5
Sulfur Dioxide (SO ₂)	24-hour	24 Hour (ppm)	.0072	.0089	.0162

4.3.2 Applicable Regulations

Federal

United States Environmental Protection Agency

The Clean Air Act (CAA), first adopted in 1967 and periodically amended since then, established federal ambient air quality standards. A 1987 amendment to the CAA sets a deadline for the attainment of these standards. That deadline has since passed. The other CAA Amendments, passed in 1990, share responsibility with the State in reducing emissions from mobile sources. The EPA is responsible for enforcing the 1990 amendments.

CAA and the NAAQS identify levels of air quality for six "criteria" pollutants, which are considered the maximum levels of ambient air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The six criteria pollutants include ozone, CO, NO₂, SO₂, PM_{2.5} and PM₁₀, and Pb. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects such as visibility restrictions.

The CAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The EPA has responsibility to review all state SIPs to determine conformance with the mandates of the CAA, and the amendments thereof, and determine if implementation would achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan may be prepared for the nonattainment area that imposes additional control measures.

CAA Section 176(c) (42 USC 7506(c)) and EPA transportation conformity regulations (40 CFR 93 Subpart A) require that each new Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) be demonstrated to conform to the SIP before the RTP and TIP are approved by the metropolitan planning organization, in this case the Fresno Council of Governments, or accepted by the United States Department of Transportation (DOT). The conformity analysis is a federal requirement designed to demonstrate compliance with the NAAQS. However, because the San Joaquin Valley State Implementation Plan for CO, PM₁₀, PM_{2.5} and ozone address attainment of both the State and federal standards for these pollutants, demonstrating conformity to the federal standards is also an indication of progress toward attainment of the State standards. Compliance with the California Ambient Air Quality Standards (CAAQS) is provided on the pages following this federal conformity discussion.

The EPA approved San Joaquin Valley reclassification of the ozone (8-hour) designation to extreme nonattainment in the Federal Register on May 5, 2010, even though the San Joaquin Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard. In accordance with the CAA, EPA uses the design value at the time of standard promulgation to assign nonattainment areas to one of several classes that reflect the severity of the nonattainment problem; classifications range from marginal nonattainment to extreme nonattainment. In the Federal Register on October 26, 2015, the EPA revised the primary and secondary standard to 0.070 ppm to provide increased public health protection against health effects associated with long- and short-term exposures. The previous ozone standard was set in 2010 at 0.075 ppm.

Toxic Substances Control Act

The Toxic Substances Control Act first authorized the EPA to regulate asbestos in schools and public and commercial buildings under Title II of the law, which is also known as the Asbestos Hazard Emergency Response Act (AHERA). AHERA requires Local Education Agencies to inspect their schools for Asbestos-Containing Building Materials and prepare management plans to reduce the asbestos hazard. The Act also established a program for the training and accreditation of individuals performing certain types of asbestos work.

National Emission Standards for Hazardous Air Pollutants

Pursuant to the CAA, the EPA established the National Emission Standards for Hazardous Air Pollutants. These are technology-based source-specific regulations that limit allowable emissions of Hazardous Air Pollutants (HAPs).

State

California Air Resources Board and the California Clean Air Act

The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing its own air quality legislation called the California Clean Air Act

(CCAA), adopted in 1988. CARB was created in 1967 from the merging of the California Motor Vehicle Pollution Control Board and the Bureau of Air Sanitation and its Laboratory.

CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. Whereas CARB has primary responsibility and produces a major part of the SIP for pollution sources that are statewide in scope, it relies on the local air districts to provide additional strategies for sources under their jurisdiction. CARB combines its data with all local district data and submits the completed SIP to the EPA. The SIP consists of the emissions standards for vehicular sources and consumer products set by the CARB, and attainment plans adopted by the Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs) and approved by CARB. The SJVAPCD is one of 35 AQMDs that have prepared air quality management plans to accomplish a five percent annual reduction in emissions documenting progress toward the CAAQS.

States may establish their own standards, provided the state standards are at least as stringent as the NAAQS. California has established the CAAQS pursuant to Health and Safety Code (HSC) Section 39606(b) and its predecessor statutes.

HSC Section 39608 requires CARB to “identify” and “classify” each air basin in the state on a pollutant-by-pollutant basis. Subsequently, the CARB designated areas in California as nonattainment based on violations of the CAAQS. Designations and classifications specific to the SJVAB can be found in the next section of this document. Areas in the state were also classified based on severity of air pollution problems. For each nonattainment class, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment categories, attainment plans are required to demonstrate a five percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. In addition, air districts in violation of CAAQS are required to prepare an Air Quality Attainment Plan (AQAP) that lays out a program to attain and maintain the CCAA mandates.

Other CARB duties include monitoring air quality. CARB has established and maintains, in conjunction with local APCDs and AQMDs, a network of sampling stations (called the State and Local Air Monitoring Stations Network), which monitors the present pollutant levels in the ambient air.

All of Fresno County, including the incorporated area of the City of Fresno, is in the SJVAB. [Table 4-5](#) contains a summary of State and federal air quality standards and the SJVABs attainment status for common pollutants.

California Air Resource Board Mobile-Source Regulation

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

The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the State’s air quality goals, planning and regulatory strategies, and performance. The CAAQS, established pursuant to HSC Section 39606(b), are similar to, but more stringent than, the NAAQS.

Assembly Bills 1807 & 2588 – Tanner Air Toxics Act

California regulates toxic air contaminants (TACs) primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a

formal procedure for CARB to designate substances as a TAC. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TACs. To date, CARB has identified more than 21 TACs and has adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure for sources that emit that particular TAC. CARB list of TACs is provided below:

- Benzene
- Ethylene Dibromide
- Ethylene Dichloride
- Hexavalent chromium
- Asbestos
- Dibenzo-p-dioxins and Dibenzofurans
- Cadmium
- Carbon Tetrachloride
- Ethylene Oxide
- Methylene Chloride
- Trichloroethylene
- Chloroform
- Vinyl chloride
- Inorganic Arsenic
- Nickel
- Perchloroethylene
- Formaldehyde
- 1,3-Butadiene
- Inorganic Lead
- Particulate Emissions from Diesel-Fueled Engines
- Environmental Tobacco Smoke
- EPA Hazardous Air Pollutants (187)

If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology to minimize emissions.

California Assembly Bill 170

AB 170 was adopted in 2003 creating GC Section 65302.1, which requires cities and counties in the San Joaquin Valley to amend their general plans to include data and analysis, comprehensive goals, policies, and feasible implementation strategies designed to improve air quality.

State Tailpipe Emission Standards

To reduce emissions from off-road diesel equipment, on-road diesel trucks, and harbor craft, CARB established a series of increasingly strict emission standards for new engines. New construction equipment used for the Project, including heavy duty trucks, off-road construction equipment, tugboats, and barges, would be required to comply with the standards.

Local

San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within the County and throughout the SJVAB. The District also has responsibility for monitoring air quality and setting and enforcing limits for source emissions. CARB is the agency with the legal responsibility for regulating mobile source emissions; the District is precluded from such activities under State law.

The District was formed in mid-1991 and prepared and adopted the San Joaquin Valley AQAP, dated January 30, 1992, in response to the requirements of the CCAA. The CCAA requires each non-attainment district to reduce pertinent air contaminants by at least five percent (5%) per year until new, more stringent, 1988 State air quality standards are met.

Activities of the SJVAPCD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the CAA and the CCAA.

The SJVAPCD has prepared the 2013 Ozone Plan to achieve federal and State standards for improved air quality in the SJVAB regarding ozone. It provides a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the SJVAB, and calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution, a 75-percent reduction in ozone-forming oxides of nitrogen emissions, and addresses the remaining requirement under the 1979 revoked 1-hour ozone NAAQS.

The EPA in 2006 issued a Final Rule determining that the Basin had attained the NAAQS for PM₁₀, it did however note that the Final Rule did not constitute a redesignation to attainment until all of the CAA requirements under Section 107(d)(3) were met. In response, the SJVAPCD prepared the 2007 PM₁₀ Maintenance Plan and Request for Redesignation (2007 PM₁₀ Plan). The SJVAPCD has prepared the 2012 PM_{2.5} Plan to achieve federal and State standards for improved air quality in the SJVAB. The 2012 PM_{2.5} Plan provides a comprehensive list of regulatory and incentive-based measures to reduce PM_{2.5}.

The Guide for Assessing and Mitigation Air Quality Impacts 2015) is an advisory document that provides lead agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality impacts in environmental documents. It describes the criteria that SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents and recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

The SJVAPCD documents identified above represent SJVAPCD's plan to achieve both State and federal air quality standards. The regulations and incentives contained in these documents must be legally enforceable and permanent. These plans separate emissions reductions and compliance into different emissions source categories. The SJVAPCD Rules and Regulations applicable to the Project include, but are not limited to:

- **Regulation VIII (Fugitive Dust Prohibitions), Regulation VIII (Rules 8011-8081):** This regulation is a series of rules designed to reduce particulate emissions generated by human activity, including construction and demolition activities, carryout and trackout, use of paved and unpaved roads and traffic areas, bulk material handling and storage, open space areas, etc. If a non-residential area is five or more acres in size, a Dust Control Plan must be submitted as specified in Section 6.3.1 of Rule 8021. Additional requirements may apply, depending on total area of disturbance.
- **Rule 8021 – Construction, Demolition, Excavation, and Other Earthmoving Activities:** District Rule 8021 requires owners or operators of construction projects to submit a Dust Control Plan to the District if at any time the project involves non-residential developments of five or more acres of disturbed surface area or moving, depositing, or relocating of more than 2,500 cubic yards per day of bulk materials on at least three days of the project. The Project will meet these criteria and will be required to submit a Dust Control Plan to the District in order to comply with this rule.
- **Rule 9510 – Indirect Source Review:** Rule 9510, Indirect Source Review, fulfills the SJVAPCD emission reduction commitments in the PM₁₀ and Ozone Attainment Plans through emission reductions associated with construction and operational activities for projects subject to the rule. Since the project contains more than 20,000 square feet of recreational space it will be required

to comply with Rule 9510. Compliance with Rule 9510 is separate from the CEQA process, although the control measures used to comply with Rule 9510 may be used to mitigate CEQA impacts.

- **Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations:** If asphalt paving will be used, then paving operations of the Project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt, and emulsified asphalt for paving and maintenance operations.
- **Regulatory Attainment Designations:** Under the CCAA, CARB is required to designate areas of the state as attainment, nonattainment, or unclassified with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The EPA designates areas for ozone, CO, and NO₂ as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For SO₂, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ standards. All other areas are designated “unclassified.”

The SJVAB is currently designated as a nonattainment area with respect to the state PM₁₀ standard, ozone, and PM_{2.5} standards. The SJVAB is designated nonattainment for the national 8-hour ozone and PM_{2.5} standards. On September 25, 2008, the EPA redesignated the San Joaquin Valley to attainment for the PM₁₀ NAAQS and approved the PM₁₀ Maintenance Plan.

Table 4-6 shows the SJVAPCD thresholds of significance for both construction- and operation-related emissions from a given project.

Table 4-6: SJVAPCD Thresholds of Significance

SJVAPCD Thresholds of Significance (tons/year)		
Pollutant	Construction Emissions	Operation Emissions
ROG	10	10
NO _x	10	10
CO	100	100
SO _x	27	27
PM ₁₀	15	15
PM _{2.5}	15	15

City of Fresno General Plan

The General Plan lists the following policies that are supportive of improved air quality:

- **Objective RC-4.** In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take necessary actions to achieve and maintain compliance with State and federal air quality standards for criteria pollutants.
- **RC-4-a Support Regional Efforts.** Support and lead, where appropriate, regional, State and federal programs and actions for the improvement of air quality, especially the SJVAPCD's efforts to monitor and control air pollutants from both stationary and mobile sources and implement Reasonably Available Control Measures in the Ozone Attainment Plan.
- **RC-4-b Conditions of Approval.** Develop and incorporate air quality maintenance requirements, compatible with Air Quality Attainment and Maintenance Plans, as conditions of approval for General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals.
- **RC-4-c Evaluate Impacts with Models.** Continue to require the use of computer models used by SJVAPCD to evaluate the air quality impacts of plans and projects that require such environmental review by the City.
- **RC-4-d Forward Information.** Forward information regarding proposed General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals that require air quality evaluation, and amendments to development regulations to the SJVAPCD for their review of potential air quality and health impacts.
- **RC-4-k Electric Vehicle Charging.** Develop standards to facilitate electric vehicle charging infrastructure in both new and existing public and private buildings, in order to accommodate these vehicles as the technology becomes more widespread.
 1. The idling time of all construction equipment used in the plan area shall not exceed ten minutes when practicable.
 2. The hours of operation of heavy-duty equipment shall be minimized when practicable.
 3. All equipment shall be properly tuned and maintained in accord with manufacturer's specifications when practicable.
 4. When feasible, alternative fueled or electrical construction equipment shall be used at the Project site.
 5. The minimum practical engine size for construction equipment shall be used when practicable.
 6. When feasible, electric carts or other smaller equipment shall be used at the project site.
 7. Gasoline-powered equipment shall be equipped with catalytic converters when practicable.

4.3.3 Thresholds

To assist local jurisdictions in the evaluation of air quality impacts, the SJVAPCD has published the Guide for Assessing and Mitigating Air Quality Impacts. This guidance document includes recommended thresholds of significance to be used for the evaluation of short-term construction, long-term operational, odor, toxic air contaminant, and cumulative air quality impacts. Accordingly, the SJVAPCD-recommended thresholds of significance are used to determine whether implementation of the proposed Project would result in a significant air quality impact. Projects that exceed these recommended thresholds would be considered to have a potentially significant impact to human health and welfare. The thresholds of significance are summarized, as follows:

Short-Term Emissions of Particulate Matter (PM₁₀): Construction impacts associated with the proposed Project would be considered significant if the feasible control measures for construction in

compliance with Regulation VIII as listed in the SJVAPCD guidelines are not incorporated or implemented, or if project-generated emissions would exceed 15 tons per year (TPY).

Short-Term Emissions of Ozone Precursors (ROG and NO_x): Construction impacts associated with the proposed Project would be considered significant if the project generates emissions of Reactive Organic Gases (ROG) or NO_x that exceeds 10 TPY.

Long-Term Emissions of Particulate Matter (PM₁₀): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of PM₁₀ that exceed 15 TPY.

Long-Term Emissions of Ozone Precursors (ROG and NO_x): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of ROG or NO_x that exceeds 10 TPY.

Conflict with or Obstruct Implementation of Applicable Air Quality Plan: Due to the region's nonattainment status for ozone, PM_{2.5}, and PM₁₀, if the project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM₁₀ would exceed the SJVAPCD's significance thresholds, then the project would be considered to conflict with the attainment plans. In addition, if the project would result in a change in land use and corresponding increases in vehicle miles traveled, the project may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

Local Mobile-Source Carbon monoxide (CO) Concentrations: Local mobile source impacts associated with the proposed Project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e., 9.0 ppm for 8 hours or 20 ppm for 1 hour).

Toxic Air Contaminants: Exposure to toxic air contaminants would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 20 in 1 million or would result in a Hazard Index greater than 1.

Odors: Odor impacts associated with the proposed Project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors

4.3.4 Impact Analysis

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

Less than Significant Impact. CEQA requires that certain projects be analyzed for consistency with the applicable air quality plan. For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. In addition, emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD air quality plans. As discussed below, construction of the project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. Implementation of SJVAPCD Regulation VIII would further reduce construction dust impacts. Operational emissions associated with the project would not exceed SJVAPCD established significance thresholds for ROG, NO_x, CO, sulfur oxides (SO_x), PM₁₀, or PM_{2.5} emissions. The Project does not exceed the minimum dwelling unit count (50) to be subject to Rule 9510, Indirect Source Review. Therefore, the

project would not conflict with or obstruct implementation of SJVAPCD air quality plans. Impacts would be less than significant.

- b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. The SJVAPCD has streamlined the process of assessing significance of criteria pollutant emissions from commonly encountered projects by developing a screening tool, Small Project Analysis Level (SPAL). Using project type and size, the District has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants. The information is provided in terms of vehicle trips required to exceed the SPAL threshold for five general land use categories, each with numerous sub-classes. The Project is assessed under Residential – Apartment, Low Rise, which has thresholds of 224 dwelling units, 800 daily automobile trips, and 15 daily heavy duty truck trips. Table 4-7 illustrates the Project characteristics alongside the SPAL thresholds.

Table 4-7: Project Comparison to Small Project Analysis Level Threshold

	Dwelling Units	Average Daily One-Way Trips	
		Non-HHDT	HHDT
Project	28	168	<4
SPAL	224	800	15

Because the Project falls beneath the thresholds established under SPAL, impacts are considered less than significant.

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

Less than Significant Impact. Sensitive receptors include, but are not limited to, residences, parks, playgrounds, childcare facilities, nursing homes, schools, and healthcare facilities. The Project site is immediately surrounded by sensitive residential receptors and the Willow Creek healthcare center located approximately 1,400 feet east of the Project site. The Project would generate diesel particulate matter during construction and during Project operations when solid waste is being collected from the site. The majority of diesel particulate matter emissions would occur during construction. However, due to the small size of the Project, construction length is expected to be minimal and consequently diesel particulate matter emissions would not be substantial. Impacts would be less than significant.

- d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roaster, asphalt batch plants, and rendering plants, among other uses. The Project does not include any of these activities or land uses. The Project would therefore have no impact with respect to generation of emissions leading to odors or other adverse or objectionable emissions.

4.4 BIOLOGICAL RESOURCES

Table 4-8: Biological Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.4.1 Baseline Conditions

General

The topography of the Project site is relatively flat across the San Joaquin Valley Floor and the area of potential effect (APE) is situated at approximately 300 feet in elevation in an urbanized area within the City of Fresno. The entire APE lies on a dirt lot adjacent to a pre-existing parking lot and residential neighborhoods. The existing roadway adjacent to the APE is paved.

Like most of California, the San Joaquin Valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures often reach above 90 degrees Fahrenheit, and

the humidity is generally low. Winter temperatures are often below 60 degrees Fahrenheit during the day and rarely exceed 70 degrees. On average, the Central Valley receives approximately 12 inches of precipitation in the form of rainfall yearly, most of which occurs between October and April.

Waters

A watershed is the topographic region that drains into a stream, river, or lake and can consist of many smaller subwatersheds. The APE lies within the James Bypass watershed; Hydrologic Unit Code (HUC): 1803000907 and the Gates Lake subwatershed; HUC: 180300090701. The James Bypass watershed comprises upland areas that flow into Tollhouse Creek, Sand Creek, North Fork Willow Creek, North Fork Little Dry Creek, and Little Dry Creek, which all run into Dry Creek. Dry Creek then flows into an underground pipeline. The nearest surface water is a detention basin approximately 650 feet west of the APE.

Soils

One soil mapping unit representing a singular soil type was identified within the APE. Hanford fine sandy loam, clay loam substratum is found within 100 percent of the APE. It is well drained, has moderately rapid permeability and very low runoff. This soil is primarily used for agriculture, dairies, and urban development. None of the major or minor soil mapping units were identified as hydric. Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions, hydrophytic vegetation can be supported.

The full soil report can be found in Attachment D in [Appendix B](#) at the end of this document.

Wildlife and Plan Species

A thorough search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB), the United States Fish and Wildlife Service (USFWS) Information for Planning, Consultation (IPaC), and iNaturalist were conducted to identify potential special status plant and animal species that may be found in and around the APE. The CNDDDB search included the United States Geologic Survey (USGS) areas encompassing the *Clovis* 7.5-minute quadrangle that contains the APE in its entirety, and for the eight surrounding quadrangles: *Lanes Bridge*, *Friant*, *Academy*, *Round Mountain*, *Sanger*, *Malaga*, *Fresno South*, and *Fresno North*. The full CNDDDB and IPaC species list can be found in Attachment B and Attachment C in [Appendix B](#). No field survey was conducted. Viewing of the APE was achieved utilizing satellite imagery.

The CNDDDB identified 35 special status animal species and 16 special status plant species within the nine-quad search. Species historically found within three miles of the APE includes seven species which are explained further in [Table 4-9](#) and [Table 4-10](#) below. This list excludes observations with unknown occurrence locations that were mapped to the center of Fresno as a best guess by CNDDDB.

Table 4-9. List of Special Status Animals with Potential to Occur Onsite and/or in the Vicinity

Species	Status	Habitat	Occurrence on APE
California tiger salamander (<i>Ambystoma californiense</i>)	FT, CT, CWL	Requires vernal pools or seasonal ponds for breeding and small mammal burrows for aestivation. Generally found in grassland and oak savannah plant communities in central California from sea level to 1500 feet in elevation.	Absent. Suitable vernal pool and upland habitat for this species is absent from the APE. Both recorded observations within three miles of the APE are considered to be extirpated.
Monarch butterfly (<i>Danaus plexippus</i>)	FC	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Unlikely. Overwintering roost sites are absent from the APE. Marginal vegetation is present and would not provide optimal foraging habitat. There are no recorded observations within the nine quad search and the closest observation on iNaturalist was approximately five miles away.
Tricolored blackbird (<i>Agelaius tricolor</i>)	CT, CSC	Nests colonially near fresh water in dense cattails or tules, or in thickets of riparian shrubs. Forages in grassland and cropland. Large colonies are often found on dairy farm forage fields.	Absent. Suitable wetland habitat is absent from the APE and surrounding area. Nesting and foraging would not be supported.
Western pond turtle (<i>Emys marmorata</i>)	CSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams, and irrigation ditches with riparian vegetation. Requires adequate basking sites and sandy banks or grassy open fields to deposit eggs.	Unlikely. Nesting and foraging habitat is absent from the APE. The nearest surface waters is a detention basin approximately 650 feet west. Nesting and foraging habitat is fragmented and likely would not support this species.

Table 4-10. List of Special Status Plants with Potential to Occur Onsite and/or in the Vicinity

Species	Status	Habitat	Occurrence on APE
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, CE, CNPS 1B	Found in the eastern San Joaquin Valley and the Sierra Nevada foothills in vernal pools within valley grassland, freshwater wetland, and wetland-riparian communities at elevations below 2600 feet. Blooms April – September.	Absent. Suitable habitat and soil for the species is absent from the APE. The only recorded occurrence of this species in the area is considered to be extirpated.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	CNPS 1B	Found in the San Joaquin Valley and other parts of California in freshwater-marsh, primarily ponds and ditches, at elevations below 1000 feet. Blooms May–October.	Absent. Suitable habitat and soil for this species is absent from the APE. The last observation within three miles of the APE was in recorded in 1954. The site was searched again in 1980 and the species was not found.
Succulent owl's-clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	FT, CE, CNPS 1B	Found in vernal pools, often in acidic soils at elevations below 2500 feet. Blooms April – July.	Absent. Suitable habitat and soil for this species is absent from the APE. The nearest observation approximately three miles away in 1938 is now considered to be possibly extirpated due to the site being disced in 1981.

EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES

Present:	Species observed on the site at time of field surveys or during recent past.
Likely:	Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible:	Species not observed on the site, but it could occur there from time to time.
Unlikely:	Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient.
Absent:	Species not observed on the site and precluded from occurring there due to absence of suitable habitat.

STATUS CODES

FT	Federally Threatened	CE	California Endangered
FC	Federal Candidate	CT	California Threatened
		CSC	California Species of Concern

CNPS LISTING

1B Plants Rare, Threatened, or Endangered in California and elsewhere.

4.4.2 Applicable Regulations

Federal

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) and the EPA regulate the placement of fill into the Waters of the U.S. under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbor Act. The term "Waters of the U.S." includes wetlands, special aquatic sites, and other non-wetland waters such as bays, rivers, and lakes. The jurisdictional limit of tidal Waters of the U.S. under Section 10 of the Rivers and Harbor Act is the Mean High-Water line. However, Section 404 of the CWA extends the jurisdictional limit to the High Tide line. The High Tide Line is the highest elevation of the tide in a normal year, excluding storm events. Wetlands adjacent to the Mean High-Water line or High Tide Line are also under the United States Army Corp of Engineers jurisdiction. For this purpose, the term "Waters of the U.S." is legally defined under Section 404 of the CWA. It includes seasonal drainages with a defined channel and support wetland species but lacks positive indicators of wetland soils.

Since 2001, the U.S. Supreme Court found in several court rulings that regulation of isolated, intrastate waters by USACE has limited the scope of federal jurisdiction under the CWA and excluded many California wetlands from federal regulation.

In December 2019, the EPA and USACE published the final rule to repeal the 2015 Clean Water Rule. The "Clean Water Rule" was designed to clarify what constitutes Waters of the U.S., and presumably, to define and make permitting more predictable, thus less costly and more straightforward more precisely.

United States Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) implements the Migratory Bird Treaty Act (MBTA; 16 USC Section 703-711), Bald and Golden Eagle Protection Act (16 United States Code [USC] Section 668), and Endangered Species Act (ESA; 16 USC section 153 et seq.).

The MBTA was enacted in 1916 to protect migratory birds between the United States and Great Britain (acting on behalf of Canada). The MBTA makes it illegal for anyone to take, possess, import, transport, purchase, barter, or offer for sale or purchase any migratory birds, nests, or eggs unless a federal agency has issued a permit. The USFWS has statutory authority and responsibility for enforcing the MBTA. The MBTA was reformed in 2004 (Migratory Bird Treaty Reform Act) to include all species native to the U.S. or

its territories, which occur due to natural biological or ecological processes (70 Federal Register [FR] 12710, March 15, 2005). The Act does not include non-native species whose occurrences in the U.S. are solely the result of intentional or unintentional human introduction. The USFWS maintains a list of bird species protected under the MBTA.

In January 2021, the USFWS published a rule change under which the unintentional killing of migratory birds does not violate the MBTA. Only the intentional “pursuing, hunting, taking, capturing, killing, or attempting to do the same...directed at migratory birds, their nests, or their eggs” would be illegal under the changes.

The ESA prohibits "take" of any federally-listed species. "Take" under the federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. "Candidate species" do not have the full protection of ESA. However, the USFWS advises project applicants that it is prudent to address these species since they could be elevated to "listed status" "before completion of projects with long planning or development schedules. "Incidental take" is harm or death that may occur during the implementation of an otherwise lawful activity.

Projects that would result in "take" "of any federally-listed threatened or endangered species can obtain authorization from the USFWS through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of Federal Endangered Species Act. The authorization process determines if a project would jeopardize a listed species' continued existence and what mitigation measures would be required to avoid jeopardizing the species.

An Incidental Take Permit or Take Permit is required when an activity would either kill, harm, harass, or interrupt a listed species' breeding or nesting. The ESA definition of "harm" is somewhat less definitive since it includes ubiquitous activities. In 1999 the USFWS published in the Federal Register a clarification of the term "harm" as it applies to the ESA. As stated, the final rule defined the term "harm" "to include any act which causes actual harm (kills or injures fish or wildlife) and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.

The USFWS cannot require or compel a landowner to obtain an Incidental Take Permit, especially under Section 10. On April 25, 2018, the USFWS issued a guidance memorandum intended to help the USFWS' Regional Directors clarify the appropriate trigger for an incidental take permit (ITP) under the Endangered Species Act (ESA). While this guidance was directed internally to USFWS staff to determine whether project-related habitat modification is likely to result in "take" of a listed species, it also provides a tool for project proponents to decide whether to seek an ITP. The guidance emphasizes that the decision to pursue an ITP or whether to cover a species is the project proponent's choice to make and is not up to the USFWS. Further, the guidance recognizes that "the biological, legal and economic risk assessment regarding whether to seek a permit belongs with the private party".

The guidance also clarifies that that habitat modification, in and of itself, does not constitute "take" unless the three components of "harm" are met. Thus, to find that habitat modification constitutes an incidental take of listed species, the following questions must all be answered in the affirmative:

- Is the modification of habitat significant?
- Does that modification also significantly impair an essential behavior pattern of a listed species?
- Is the significant modification of the habitat likely to result in the actual killing or injury of wildlife?

State

State Water Resources Control Board

Since 1993, California has had a Wetlands Conservation Policy (Executive Order W-59-93). Commonly referred to as the No Net Loss Policy for wetlands, this order establishes a State mandate for developing and adopting a policy framework and strategy to protect the state's wetland ecosystems. The policy was to be implemented voluntarily and was expressly not to be implemented on a "project-by-project" basis (See EO W-59-93, Section III).

In 2020, the newly adopted State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State went into effect. The procedures, most often, are applied through regional water board sign-off (or "'c" certification") of USACE wetland permits. The State definition of wetland differs from the federal definition in a key way. Specifically, the State definition defines areas as wetlands that have no vegetation if other criteria are met. Wetlands of the State include 1) natural wetlands, 2) wetlands created by modification of a waters of the state (at any point in history), and 3) artificial wetlands that meet specific criteria. Only a few types of waters are exempted from the State definition of wetlands. Examples of water features excluded from the State's definition include industrial or municipal wastewater, certain types of stormwater treatment facilities, agricultural crop irrigation, industrial processing or cooling, and fields flooded for rice growing.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) is a Trustee Agency under CEQA and is responsible for reviewing and providing recommendations on projects that could impact plant and wildlife resources. Under Fish and Game Code Section 1802, the CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations. The California Fish and Game Code also provides authority for the CDFW to regulate projects that could result in the "take" of any species listed by the State as threatened or endangered (Section 2081). CDFW also has authority over all state streams, as described below.

Perennial and intermittent streams also fall under the jurisdiction of CDFW according to Sections 1601-1603 of the Fish and Game Code (Streambed Alteration Agreements). CDFW's jurisdictional extent includes work within the stream zone, including the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream, or lake. Before issuing a 1601 or 1603 Streambed Alteration Agreement, the CDFW must demonstrate compliance with CEQA. In most cases, CDFW relies on the CEQA review performed by the local lead agency. However, in cases where no CEQA review was required for the project, CDFW would act as the lead agency under CEQA.

The CDFW also has authority for the protection of State-listed species issues under Section 2081 Incidental Take Permit if a project has the potential to negatively affect State-protected plant or animal species or their habitats, either directly or indirectly. Protected species include those "listed" by the state as endangered or threatened. Besides listed species, there are other species protection categories, including "fully protected" and California Species of Special Concern. Adverse impacts to species that have the "fully protected" designation are prohibited.

Under FGC Section 3503, "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird..." Birds of prey (falcons, hawks, owls, and eagles) get extra protection under the law (FGC Section 3503.5).

As is the case with USFWS, CDFW does not have the authority to require a landowner to apply for an ITP authorizing take. Instead, the landowner has the legal obligation to avoid any take of CTS if it does not seek

an ITP or to apply for and receive an ITP that authorizes take. That said, CDFW (and USFWS) can initiate an enforcement action if they believe that illegal take has occurred or will occur.

California Endangered Species Act

The California Endangered Species Act (CESA) protects candidate plants and animal species and those listed as rare, threatened, or endangered by CDFW. CESA prohibits the take of any such species unless authorized. Section 2081 authorizes the State to issue incidental take permits. The State definition of taking applies only to acts that result in the death of or adverse impacts to protected species. The CESA mirrors the federal regulation as it relates to "take"; however, there is no State equivalent definition of "harm" or "harass." Incidental take is also not defined by the CESA statute or regulation. Unlike the federal ESA, CESA does qualify that incidental "take" is not prohibited "if it is the result of an act that occurs on a farm or ranch in the course of an otherwise lawful routine and ongoing agricultural activity." Where disagreement occurs (and in some cases, this has been the subject of court cases) is in the common understanding of "routine and ongoing agricultural activity".

California Environmental Quality Act

The CEQA Guidelines require a review of projects to determine their environmental effects and identify mitigation for significant effects. The Guidelines state an effect may be significant if it affects rare and endangered species. Guidelines Section 15380 defines "rare" to include listed species and allows agencies to consider rare species other than those designated as State or federal threatened or endangered, but that meet the standards for rare under the federal or State endangered species acts. On this basis, plants designated as rare by non-regulatory organizations (e.g., California Native Plant Society), species of special concern as defined by CDFW, candidate species as defined by USFWS, and other designations may need to be considered in CEQA analyses.

Local

City of Fresno General Plan

The City of Fresno General Plan sets forth the following goals and policies that protect biological resources and which have potential relevance to the Project's environmental review:

- **Objective POSS-5:** Provide for long-term preservation, enhancement, and enjoyment of plant, wildlife, and aquatic habitat.
- **Policy POSS-5-c:** Buffers for Natural Areas. Require development projects, where appropriate and warranted, to incorporate natural features (such as ponds, hedgerows, and wooded strips) to serve as buffers for adjacent natural areas with high ecological value.

4.4.3 Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Incorporated. Of the seven regionally-occurring special status animal species, all were found to be absent or unlikely to occur within the APE due to unsuitable habitat. As explained in **Table 4-9** and **Table 4-10** these species include: California tiger salamander (CTS), Monarch butterfly, Tricolored blackbird, Western pond turtle, California tiger salamander, San Joaquin Valley Orcutt grass, and Sanford's arrowhead. Since it is unlikely these species would occur onsite,

implementation of the Project would have no impact on these special status species through construction mortality, disturbance, or loss of habitat. Protection measures are not warranted.

The APE contains suitable nesting and/or foraging habitat for ground and tree nesting avian species. With implementation of mitigation measures **BIO-1**, **BIO-2**, and **BIO-3**, should nesting birds be found prior to commencement of construction a protective buffer would be placed around the area consistent with CDFW and USFWS guidelines. This would ensure any potential impacts to nesting birds would be reduced to a less-than-significant level.

- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The CDFW and USFWS often designate areas of “Critical Habitat” when listing species as threatened or endangered. Critical Habitat is a specific geographic area that contains features essential for the conservation of a threatened or endangered species and would require special management or protection. According to CNDDDB and IPaC, designated critical habitat is absent from the APE and vicinity.

CDFW also designates “natural communities of special concern” that are defined by distinguished, significant biological diversity, or a home to special status species. According to CNDDDB Northern Claypan Vernal Pool is designated as a natural community of special concern and is located 2.5 miles west of the APE. Northern Hardpan Vernal Pool is designated as a natural community of special concern and is located 4 miles northeast, 7 miles northwest, 7.5 miles north, 9 miles northwest, and 11 miles northwest of the APE. Great Valley Mixed Riparian Forest is designated as a natural community of special concern and is located 5.5 miles north of the APE. Sycamore Alluvial Woodland is designated as a natural community of special concern and is located 6.5 miles north of the APE. These natural communities would not be impacted by the Project. There would be no impact.

- c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The Project does not contain any federally protected wetlands or other Waters of the United States as defined by Section 404 of the Clean Water Act (**Appendix B**). The nearest surface waters is a detention basin approximately 650 feet west of the APE. Implementation of the Project would have no impact on jurisdictional waters, wetlands, navigable waters, wild and scenic rivers, riparian habitat, or other water features. Therefore, the Project would not require jurisdictional permits from regulatory compliance agencies. There would be no impact.

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

No Impact. Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation.

The APE does not contain features that would be likely to function as wildlife movement corridors. Further, the APE is heavily disturbed by human activities, which would discourage dispersal and migration. There would be no impact.

- e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. As described above, wildlife buffers are not warranted, and no trees are proposed to be removed. Therefore, implementation of the Project would be compliant with the aforementioned local policies and ordinances protecting biological resources. There would be no impact.

- f) Would the project 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. The Project is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan. There would be no impact.

4.4.4 Mitigation

- BIO-1** The Project's construction activities will occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.
- BIO-2** If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist would conduct a pre-construction survey for all nesting birds within the Project boundary and an additional 50 feet surrounding the Project, no more than 7 days prior to the start of construction. All raptor nests would be considered "active" upon the nest-building stage.
- BIO-3** On discovery of any active nests or breeding colonies near work areas, the qualified biologist will determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Construction buffers will be identified with flagging, fencing, or other easily visible means, and will be maintained until the biologist has determined that the nestlings have fledged and are no longer dependent on the nest.

4.5 CULTURAL RESOURCES

Table 4-11: Cultural Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.5.1 Baseline Conditions

Southern San Joaquin Valley Information Center of the California Historical Resources Information System

A records search from the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS), located at California State University, Bakersfield was conducted in March 2022. The SSJVIC records search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest, the California Historical Landmarks (CHL), the California Register of Historical Resources, the National Register of Historic Places (NRHP), and the California State Built Environment Resources Directory listings were reviewed for the above referenced APE and an additional ¼-mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released. (Appendix C).

Additional sources included the California Office of Historic Preservation (OHP) Historic Properties Directory, Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources.

Native American Heritage Commission – Sacred Lands File Search

The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act, among many other powers and duties. In May 2022, the NAHC was provided a brief description of the Project and a map showing its location along with a request to perform a search of the Sacred Lands File to determine if any Native American resources have been recorded in the immediate APE. The results of that search were negative.

4.5.2 Applicable Regulations

Federal

National Historic Preservation Act. The National Historic Preservation Act of 1966 (NHPA) is the most concise and effective federal law dealing with historic preservation. Federal preservation law does not apply to this analysis but a short review of the legislation is needed because the State and local requirements are derived from that legislation. The NHPA established guidelines to “preserve important historic, cultural, and natural aspects of our cultural heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice.” The NHPA includes regulations specifically for federal land-holding agencies, but also includes regulations (known as Section 106) which pertain to all projects that are funded, permitted, or approved by any federal agency and which have the potential to affect cultural resources. In addition, the NHPA authorizes the Secretary of the Interior to establish the NRHP. The NRHP is an inventory of districts, sites, buildings, structures and objects significant at a national, State, or local level in American history, architecture, archaeology, engineering, and culture. The National Register is wholly maintained by the National Park Service (NPS), the Advisory Council on Historic Preservation, and OHP, and grants-in-aid programs.

The City participates in the Certified Local Government (CLG), a preservation partnership between the local, State, and federal governments focused on promoting historic preservation at the grass roots level. The program is jointly administered by NPS and OHP, with each local community working through a certification process to become recognized as a CLG.

State

California Register of Historical Resources. The California Register of Historical Resources (CRHR) is an inventory of significant architectural, archaeological, and historical resources in the State of California. Important cultural resources can be listed in the California Register through a number of methods, and listing requires approval from the State Historical Resources Commission. Properties can be nominated to the California Register by local governments, private organizations, or citizens. CHLs and National Register-listed properties gain automatic listing in the California Register. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the NPS for the National Register. In order for a cultural resource to be significant, or in other words eligible, for listing in the California Register, it must reflect one or more of the following criteria (PRC 5024.1c):

- **Criterion 1 (Events):** Resources that are associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- **Criterion 2 (Persons):** Resources that are associated with the lives of persons important to local, California, or national history.
- **Criterion 3 (Architecture):** Resources that embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possess high artistic values.
- **Criterion 4 (Information Potential):** Resources or sites that have yielded or have the potential to yield information important to the prehistory or history of the local area, California, or the nation.

California Environmental Quality Act. CEQA requires that public agencies assess the effects on historical resources of public or private projects that the agencies finance or approve. Historical resources are defined as buildings, sites, structures, objects, areas, places, records, or manuscripts that the lead

agency determines to have historical significance, including architectural, archaeological, cultural, or scientific significance. CEQA requires that if a project results in an effect that may cause a substantial adverse change in the significance of a historical resource, alternative plans or mitigation measures must be considered.

However, only significant historical resources need to be addressed. Therefore, before the assessment of effects or development of mitigation measures, the significance of cultural resources must be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

1. Identify potential historical resources.
2. Evaluate the eligibility of historical resources.
3. Evaluate the effects of the project on all eligible historical resources.

In addition, properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR (PRC Section 5024.1[d][1]) and thus are significant historical resources for the purposes of CEQA.

A project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant impact on the environment (CEQA Guidelines 15064.5[b]). CEQA also states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of an historical resource or its immediate surroundings such that the significance of the resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or materially and adversely alter the physical characteristics of a historical resource that convey its historical significance and qualify or justify its eligibility for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Significant Historical Resources under CEQA Guidelines. In completing an analysis of a project under CEQA, it must first be determined if the project site possesses a historical resource. A site may qualify as a historical resource if it falls within at least one of four categories listed in CEQA Guidelines Section 15064.5(a). The four categories are:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for, listing in the California Register of Historical Resources (PRC Section 5024.1; Title 14 California Code of Regulations [CCR], Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1 (g), shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (PRC Section 5024.1; Title 14 CCR, Section 4852) including the following:

- a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - b) Is associated with the lives of persons important in our past;
 - c) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values; or
 - d) Has yielded, or may be likely to yield, information important in prehistory or history.
4. The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

A lead agency must consider a resource that has been listed in, or determined to be eligible for listing in the California Register (Category 1) as a historical resource for CEQA purposes. In general, a resource that meets any of the other three criteria listed in CEQA Guidelines Section 15064.5(a) is also considered to be a historical resource unless "the preponderance of evidence demonstrates" that the resource is not historically or culturally significant."

Health and Safety Code. The discovery of human remains is regulated by HSC Section 7050.5, which states, "If human remains are encountered, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified to the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify Most Likely Descendant (MLD). With the permission of the landowner or his or her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials."

Local

City of Fresno General Plan. The General Plan is a set of goals, objectives, and policies that form a blueprint for the physical development of the city. The following objective and policies related to cultural resources are presented in the General Plan:

- Objective HCR-1: Maintain a comprehensive, citywide preservation program to identify, protect and assist in the preservation of Fresno's historic and cultural resources.
- Objective HCR-2: Identify and preserve Fresno's historic and cultural resources that reflect important cultural, social, economic, and architectural features so that residents will have a foundation upon which to measure and direct physical change.
 - Policy HCR-2-a: Identification and Designation of Historic Properties. Work to identify and evaluate potential historic resources and districts and prepare nomination forms for Fresno's Local Register of Historic Resources and California and National registries, as appropriate.
 - Policy HCR-2-c: Project Development. Prior to project approval, continue to require a project site and its Area of Potential Effects (APE), without benefit of a prior historic survey, to be evaluated and reviewed for the potential for historic and/or cultural resources by a professional who meets the Secretary of Interior's Qualifications. Survey costs shall be the responsibility of the project developer. Council may, but is not required, to adopt an ordinance to implement this policy.

- Policy HCR-2-d: Native American Sites. Work with local Native American tribes to protect recorded and unrecorded cultural and sacred sites, as required by State law, and educate developers and the community-at-large about the connections between Native American history and the environmental features that characterize the local landscape.
- Policy HCR-2-f: Archaeological Resources. Consider State Office of Historic Preservation guidelines when establishing CEQA mitigation measures for archaeological resources.

City of Fresno Municipal Code

Historic Preservation Ordinance. The City of Fresno has established a Historic Preservation Commission and a Local Register of Historic Resources (Fresno Municipal Code, Chapter 12, Article 16). The Ordinance is used to provide local levels of control over the historical aesthetics of cultural resources within the city, and to ensure that the potential impact to locally significant historical resources that may be the subject of redevelopment are given reasonable consideration. The purpose of the Ordinance is to:

[...] continue to preserve, promote and improve the historic resources and districts of the City of Fresno for educational, cultural, economic and general welfare of the public; to continue to protect and review changes to these resources and districts which have a distinctive character or a special historic, architectural, aesthetic or cultural value to this city, state and nation; to continue to safeguard the heritage of this city by preserving and regulating its historic buildings, structures, objects, sites and districts which reflect elements of the city's historic, cultural, social, economic, political and architectural history; to continue to preserve and enhance the environmental quality and safety of these landmarks and districts; to continue to establish, stabilize and improve property values and to foster economic development. (Article 16 Section 12-1602(a).)

The Ordinance provides legislative mechanisms to protect certain historical resources. Local registers of identified historical resources are known, including:

1. **Heritage Properties.** These are defined as a resource which is worthy of preservation because of its historical, architectural or aesthetic merit but which is not proposed for and is not designated as an Historic Resource under the ordinance.
2. **Historic Resources.** These are defined as any building, structure, object or site that has been in existence more than fifty years and possesses integrity of location, design, setting, materials, workmanship, feeling and association, and is associated with events that have made a significant contribution to the broad patterns of city history, or is associated with the lives of persons significant in our past, or embodies the distinctive characteristics of a type, period or method of construction, or represents the work of a master or possesses high artistic values; or has yielded, or may be likely to yield, important information in prehistory or history; and has been designated as such by the Council pursuant to the provisions of the Ordinance.
3. **Local Historic Districts.** These are defined as any finite group of resources related to one another in a clearly distinguishable way or any geographically definable area which possesses a significant concentration, linkage or continuity of sites, buildings, structures or objects united historically or aesthetically by plan or physical development. The Local Historic District must be significant as well as identifiable and it must meet Local Register Criteria for listing on that Register. Contributors to Historic Districts are defined as any Historic Resource that contributes to the significance of the specific Local Historic District or a proposed National Register Historic District under the criteria set forth in the Ordinance.
4. **National Register Historic Districts,** which shall mean any finite group of resources related to one another in a clearly distinguishable way or any geographically definable area which possesses a significant concentration, linkage or continuity of sites, buildings, structures or objects united

historically or aesthetically by plan or physical development. A National Register Historic District must be significant as well as identifiable and it must meet National Register Criteria for listing on that Register. Contributors to a National Register Historic District are defined as any individual Historic Resource which contributes to the significance of a National Register Historic District under the criteria set forth in the Ordinance.

Certified Local Government. The CLG Program is administered by OHP. When a Lead Agency becomes a CLG it agrees to carry out the intent of and serve as a local steward of the National Historic Preservation Act and the Secretary of the Interior's Standards. In meeting those standards, OHP serves as an advisor. The use of the National Register/California Register criteria and the Secretary of the Interior Standards integrates local, state, and federal levels of review. It brings clarity to the question of what resources are significant when it comes to CEQA and Section 106 of the National Historic Preservation Act. Adopting the Secretary of the Interior's Standards will allow the use of categorical exemptions under CEQA, and likely result of findings of no adverse effect under Section 106. The use of these criteria and standards make environmental review faster, more efficient, and reduces costs and delays. The City has been certified as a CLG since September 1996.

4.5.3 Impact Analysis

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

Less than Significant Impact with Mitigation Incorporated. A CHRIS records search from SSJVIC was conducted in March of 2022 and confirmed there have been no previous cultural resource studies in the project area. There have been seven studies conducted within a one-half mile radius: FR-01006, 01223, 01844, 01880, 01946, 02318, & 02319. The search also confirmed the absence of identified cultural resources within the Project area and the absence of any recorded cultural resources within a one-half mile radius. Additionally, a Sacred Lands Search from NAHC was also conducted for the Project area and the results were negative the presence of known cultural resources.

It is unlikely that the Project has the potential to result in significant impacts or adverse effects historical resources, such as historic properties. However, in the unlikely event that cultural resources are encountered during Project construction, implementation of mitigation measure **CUL-1** outlined below, would reduce impacts to less than significant.

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

Less than Significant Impact with Mitigation Incorporated. A CHRIS records search from SSJVIC was conducted in March of 2022 and confirmed there have been no previous cultural resource studies in the project area. There have been seven studies conducted within a one-half mile radius: FR-01006, 01223, 01844, 01880, 01946, 02318, & 02319. The search also confirmed the absence of identified cultural resources within the Project area and the absence of any recorded cultural resources within a one-half mile radius. Additionally, a Sacred Lands Search from NAHC was also conducted for the Project area and the results were negative the presence of known cultural resources.

It is unlikely that the Project has the potential to result in significant impacts or adverse effects to cultural or historical resources, such as archaeological remains, artifacts or historic properties. However, in the


unlikely event that cultural resources are encountered during Project construction, implementation of mitigation measure **CUL-1** outlined below, would reduce impacts to less than significant.

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

Less than Significant Impact with Mitigation Incorporated. There is no evidence or record that the Project has the potential to be an unknown burial site, or the site of buried human remains. In the unlikely event of such a discovery, mitigation shall be implemented. With incorporation of Mitigation Measure **PEIR CUL-3**, as presented in the GP PEIR, impacts resulting from the discovery of remains interred on the Project site would be less than significant.

4.5.4 Mitigation

CUL-1 Should archaeological remains or artifacts be unearthed during any stage of Project activities, work in the area of discovery shall cease until the area is evaluated by a qualified archaeologist. If additional mitigation is warranted, the Project proponent shall abide by recommendations of the archaeologist.

PEIR CUL-3  In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area suspected to overlie adjacent remains until the Fresno County Coroner has determined that the remains are not subject to any provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

If the Fresno County Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC.

4.6 ENERGY

Table 4-12: Energy Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.6.1 Baseline Conditions

The site currently consists of a vacant lot. No energy is consumed with the exception of periodic visits for weed removal.

4.6.2 Applicable Regulations

Federal

Energy Independence and Security Act of 2007

The Energy Independence and Security Act, enacted by Congress in 2007, is designed to improve vehicle fuel economy and help reduce the United States' dependence on foreign oil. It expands the production of renewable fuels, reducing dependence on oil and confronting climate change. Specifically, it does the following:

- Increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Reduces United States demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020, an increase in fuel economy standards of 40 percent as compared to 2007 levels.

The Energy Independence and Security Act of 2007 also set energy efficiency standards for lighting (specifically light bulbs) and appliances. Development would also be required to install photosensors and energy-efficient lighting fixtures consistent with the requirements of 42 USC Section 17001, et seq.

Energy Policy and Conservation Act

Enacted in 1975, this legislation established fuel economy standards for new light-duty vehicles sold in the United States. The law placed responsibility on the National Highway Traffic and Safety Administration (NHTSA) for establishing and regularly updating vehicle standards. The EPA administers the Corporate Average Fuel Economy program, which determines vehicle manufacturers' compliance with existing fuel economy standards. Since the inception of the Corporate Average Fuel Economy program, the average fuel economy for new light-duty vehicles steadily increased from 13.1 miles per gallon for the 1975 model year

to 30.7 miles per gallon for the 2014 model year and is proposed to increase to 54.5 by 2025. Light-duty vehicles include autos, pickups, vans, and sport-utility vehicles.

Energy Star Program

Energy Star is a voluntary labeling program introduced by EPA to identify and promote energy-efficient products to reduce GHG emissions. The program applies to major household appliances, lighting, computers, and building components such as windows, doors, roofs, and heating and cooling systems. Under this program, appliances that meet specifications for maximum energy use established under the program are certified to display the Energy Star label. In 1996, the EPA joined with the Department of Energy to expand the program, which now also includes certifying commercial and industrial buildings as well as homes.

Construction Equipment Fuel Efficiency Standard

The EPA sets emission standards for construction equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements contained in 40 CFR Parts 1039, 1065, and 1068. Emissions requirements for new off-road Tier 4 vehicles were completely phased in by the end of 2015.

State

California Energy Action Plan

The California Energy Commission (CEC) is responsible for preparing the California Energy Action Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The 2008 California Energy Action Plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, as well as encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), the California Energy Commission (CEC) and CARB prepared and adopted a joint-agency report, Reducing California's Petroleum Dependence, in 2003. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT. One of the performance-based goals of AB 2076 is to reduce petroleum demand to 15 percent below 2003 demand. In response to the CEC's 2003 and 2005 Integrated Energy Policy Reports, the Governor directed the CEC to take the lead in developing a long-term plan to increase alternative fuel use.

Integrated Energy Policy Report

SB 1389 requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC uses these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The most recent assessment, the 2018 Integrated Energy Policy Report, contains two volumes. Volume I highlights the implementation of California's innovative policies and the role they have played in establishing a clean energy economy.

Volume II provides more detail on several key energy policies, including decarbonizing buildings, increasing energy efficiency savings, and integrating more renewable energy into the electricity system.

Senate Bill 350

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires a doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

California Renewable Portfolio Standard and Senate Bill 100

Approved by former Governor Brown on September 10, 2018, SB 100 accelerates the State's Renewable Portfolio Standard program, which had last been updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Assembly Bill 1493: Reduction of Greenhouse Gas Emissions

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." Implementation of new regulations prescribed by AB 1493 required California to apply for a waiver under the CAA. Although the EPA initially denied the waiver in 2008, EPA approved a waiver in June 2009, and in September 2009, CARB approved amendments to its initially adopted regulations to apply the Pavley standards that reduce GHG emissions to new passenger vehicles in model years 2009 through 2016. According to CARB, implementation of the Pavley regulations is expected to reduce fuel consumption while also reducing GHG emissions.

On September 19, 2019, the EPA withdrew California's CAA preemption waiver and issued the One National Program Rule, which prohibits states from establishing their own separate fuel economy standards or passing laws that substantially affect fuel economy standards. As a result, California may no longer promulgate and enforce its tailpipe GHG emission standard and zero emission vehicle mandate.

Energy Action Plan

In 2003, the CEC and California Public Utilities Commission set forth their energy policy vision in the Energy Action Plan (EAP). The CEC adopted an update to the EAP in February 2008 (EAP II) that supplements the earlier EAP and examines the state's ongoing actions in the context of global climate change. The nine major action areas in the EAP include energy efficiency, demand response, renewable energy, electricity adequacy/reliability/infrastructure, electricity market structure, natural gas supply/demand/infrastructure, transportation fuels supply/demand/infrastructure, research/development/demonstration, and climate change.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required the CEC to prepare a plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other federal, State, and local agencies. The State Alternative Fuels Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Bioenergy Action Plan (Executive Order S-06-06)

EO S-06-06 establishes targets for the use and production of biofuels and biopower and directs State agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO establishes the following in-state production targets to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources:

- Produce 20 percent of biofuels used in California by 2010;
- Produce 40 percent of biofuels used in California by 2020; and,
- Produce 75 percent of biofuels used in California by 2050.

EO S-06-06 also calls for the State to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies potential barriers and recommends actions to address them so the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 Plan and provides a more detailed action plan to achieve the following goals:

- Increase environmentally and economically sustainable energy production from organic waste
- Encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications
- Create jobs and stimulate economic development, especially in rural regions of the state
- Reduce fire danger, improve air and water quality, and reduce waste.

Title 24, California Code of Regulations

California Code of Regulations, Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-residential Buildings. The CEC established Title 24 in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. The standards are updated on an approximately three-year cycle to allow consideration and possible incorporation of new efficient technologies and methods. In 2019, the CEC updated Title 24 standards with more stringent requirements effective January 1, 2020. All buildings for which an application for a building permit is submitted on or after January 1, 2020, must follow the 2019 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

California Green Building Standards Code (2019), California Code of Regulations Title 24, Part 11

California's Green Building Code, referred to as CalGreen, was developed to provide a consistent approach to green building in the State. Having taken effect in January 2020, the most recent version of CalGreen lays out the minimum requirements for newly constructed residential and nonresidential buildings to reduce GHG emissions through improved energy efficiency and process improvements. It also includes voluntary tiers to further encourage building practices that improve public health, safety, and general welfare by promoting a more sustainable design.

2017 Climate Change Scoping Plan

On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the State's 2030 GHG emissions reduction target of 40 percent below 1990 levels. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation. The 2017 Scoping Plan includes a wide variety of goals related to energy efficiency and renewable energy that are intended to help meet the State's 2030 target, including goals specifically targeted at the water sector

Local

Fresno Council of Governments 2018 – 2042 Regional Transportation Plan/Sustainable Communities Strategy

The Regional Transportation Plan (RTP) is a comprehensive assessment of all forms of transportation available in Fresno County and of the needs for travel and goods movement. The 2014 RTP contains a Sustainable Communities Strategy (SCS) as required by SB 375. Enacted in 2008, SB 375 requires that each Metropolitan Planning Organization include an SCS that provides an integrated land use and transportation plan for meeting greenhouse gas emission reduction targets set forth by the California Air Resources Board (CARB).

In June 2018, Fresno Council of Governments (Fresno COG) adopted the 2018-2042 RTP/SCS. The Draft 2018-2042 RTP/SCS charts the 25-year course of transportation to 2042 to address greenhouse gas emissions reductions and other air emissions. The RTP is made up of a variety of different elements or chapters, and each element is augmented by additional documentation. The RTP also contains a chapter that establishes the SCS to show how integrated land use and transportation planning can lead to lower greenhouse gas emissions from autos and light trucks, as well as improve overall quality of life in the region. Fresno COG is currently preparing its 2022-2046 RTP/SCS.

City of Fresno General Plan

The City of Fresno implements the following policies that are applicable to the Project related to energy consumption:

Chapter 3, Urban Form, Land Use, and Design

LU-5-c Medium Density Residential Uses. Promote medium density residential uses to maximize efficient use of residential property through a wide range of densities.

Chapter 7, Resource Conservation and Resilience

RC-8-a Existing Standards and Programs. Existing Standards and Programs. Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations.

RC-8-b Energy Reduction Targets. Strive to reduce per capita residential electricity use to 1,800 kWh per year and non-residential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.

RC-8-c Energy Conservation in New Development. Consider providing an incentive program for new buildings that exceed California Energy Code requirements by fifteen percent.

RC-8-d Incentives. Establish an incentive program for residential developers who commit to building all of their homes to ENERGY STAR performance guidelines.

RC-8-h Solar Assistance. Identify and publicize information about financial mechanisms for private solar installations and provide over-the-counter permitting for solar installations meeting specified standards, which may include maximum size (in kW) of units that can be so approved

4.6.3 Impact Analysis

- a) Would the project 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 Project would comply with Building Energy Efficiency Standards included in Title 24 of the California Code of Regulations, which requires new residential development to incorporate energy efficiency standards into Project designs. In addition, the Project would implement General Plan policies. The Project proposes the construction of medium density residences to use land in a way that emphasizes conservation, successful adaptation to climate and changing resource conditions, and performance effectiveness in the use of energy, water, land, buildings, natural resources, and fiscal resources required for the long-term sustainability of Fresno. The planned land uses require design that provides for walkable and pedestrian-scaled developments and efficient use of resources (LU-5-b). The General Plan provides for the implementation of incentives, design and operations standards that promote alternative energy sources and cost-effective savings (Policies RC-8-a, RC-8-b, RC-8-c, RC-8-d, and RC-8-h). Natural gas for the Project and the surrounding area is provided by Pacific Gas and Electric Company (PG&E). The Project site does not currently have a demand for natural gas usage and the Project would represent an increase in natural gas usage. However, PG&E has indicated it can meet the increased demand for natural gas with its existing facilities and through engaging in Energy Efficiency programs (EE). PG&E's EE programs include services to customers such as evaluating consumption options, equipment retrofits, and rebates among other EE programs. This overall trend in reduced natural gas consumption would result in new projects, including the subject Project having reduced impacts related to natural gas consumption. Current regulations for construction equipment, heavy-duty equipment, and earthmoving equipment used in construction contributes to reductions in energy as well as reduction in pollutant emissions. California implemented its In-Use Off-Road Diesel Fueled Fleets regulations (off-road regulation) which applies to all self-propelled off-road diesel vehicles 25 horsepower or greater and most two-engine vehicles. The Small Off-Road Engines program was implemented by California to apply to categories of outdoor powered equipment and specialty vehicles often used in construction.

Through compliance with energy reduction standards and regulations aimed at reducing consumption of transportation related energy consumption, as well as the energy provider's energy reduction programs, the Project will have less than significant impacts related to energy usage during Project operations and construction and its impacts related to wasteful, inefficient, or unnecessary energy consumption overall, would be less than significant.

- b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. Project design, construction and operation would comply with the City's Green Handbook, a guide for builders to achieve sustainability. The Green Handbook is a component of the City of Fresno's Strategy for Achieving Sustainability. The Green Handbook's standards are supported by the City's General Plan policies and regulated through Title 24 building code requirements, such as energy efficient building materials and appliances. Compliance with these policies would support a decrease in energy consumption and GHG emissions compared to business as usual, enabling the Project to contribute to sustainable community goals and the goals of AB 32. The Project would not conflict with any of the applicable plans including Title 24, AB 32, SB 32, SB 350, and SB 100; therefore, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and impacts would be less than significant.

4.7 GEOLOGY AND SOILS

Table 4-13: Geology and Soils Impacts

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

4.7.1 Baseline Conditions

Geology and Soils

The Project is located in north-central Fresno County, in the southern section of California's Great Valley Geomorphic Province, or Central Valley. The Sacramento Valley makes up the northern third and the San Joaquin Valley makes up the southern two-thirds of the geomorphic province. Both valleys are watered by large rivers flowing west from the Sierra Nevada Range, with smaller tributaries flowing east from the Coast Ranges. Most of the surface of the Great Valley is covered by Quaternary (present day to 1.6 million years ago) alluvium. The sedimentary formations are steeply upturned along the western margin due to the

uplifted Sierra Nevada Range. From the time the Valley first began to form, sediments derived from erosion of igneous and metamorphic rocks and consolidated marine sediments in the surrounding mountains have been transported into the Valley by streams.

Faults and Seismicity

Most of Fresno is situated within an area of relatively low seismic activity and is not located within a known active earthquake fault zone. The Project is not located within an Alquist-Priolo Earthquake Fault Zone and there are no known active faults within the City of Fresno. The nearest major fault is the San Andreas Fault, located approximately 74 miles southwest of the Project site. The San Andreas fault is the dominant active tectonic feature of the Coast Ranges and represents the boundary of the North American and Pacific plates. The San Joaquin Fault is located approximately 59 miles west of the Project site.

Liquefaction

The potential for liquefaction, which is the loss of soil strength due to seismic forces, is dependent on soil types and density, the groundwater table, and the duration and intensity of ground shaking. Although no specific liquefaction hazard areas have been identified in Fresno County, this potential is recognized throughout the San Joaquin Valley where unconsolidated sediments and a high-water table coincide. Soil types along the Valley floor are not generally conducive to liquefaction because they are generally too coarse. Furthermore, the average depth to groundwater within the City of Fresno is approximately 85 to 95 feet, which also minimizes liquefaction potential.

Soil Subsidence

Subsidence occurs when a large land area settles due to over-saturation or extensive withdrawal of groundwater, oil, or natural gas. These areas are typically composed of open-textured soils, high in silt or clay content, that become saturated. Although some areas in Fresno County have experienced subsidence due to groundwater overdraft, the City of Fresno's elevation has remained relatively unchanged. One soil mapping unit representing a singular soil type was identified within the APE. Hanford fine sandy loam, clay loam substratum is found within 100 percent of the Project site. It is well drained and has moderately rapid permeability and very low runoff. This soil is primarily used for agriculture, dairies, and urban development. None of the major or minor soil mapping units were identified as hydric. Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions, hydrophytic vegetation can be supported.

Dam and Levee Failure

Hundreds of dams and reservoirs have been built in California for water supply, flood control, hydroelectric power, and recreational uses. The storage capacity of these dams varies across the State from large reservoirs with capacities exceeding millions of acre-feet (AF) to small reservoirs with capacities from hundreds to thousands of AF. Depending on the season, water from these reservoirs is released into the river system of the State and eventually reaches the Pacific Ocean. The San Joaquin River, located at the north edge of the City of Fresno, is the primary river in the vicinity. The San Joaquin River is impounded by Friant Dam, which forms the 520,000-acre-foot Lake Millerton, approximately 16 miles northeast of the Project site. If Friant dam were to fail, a large portion of Fresno County, including the City of Fresno, would be inundated with water.

4.7.2 Applicable Regulations

Federal

Earthquake Hazards Reduction Act: The Earthquake Hazards Reduction Act was enacted in 1997 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities, program goals, and objectives.

NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The NEHRPA designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities.

State

Alquist-Priolo Earthquake Fault Zoning Act: In response to the severe fault rupture damage of structures by the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972. This act required the State Geologist to delineate Earthquake Fault Zones (EFZs) along known active faults that have a relatively high potential for ground rupture. Faults that are zoned under the Alquist-Priolo Act must meet the strict definition of being “sufficiently active” and “well-defined” for inclusion as an EFZ. The EFZs are revised periodically, and extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in an EFZ is permitted only following the completion of a fault location report prepared by a California Registered Geologist. This Act does not apply to areas within the Project site because no active faults cross the Project site.

California Building Code: Title 24, Part 2, of the California Code of Regulations, also known as the California Building Code (CBC), sets forth minimum requirements for building design and construction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards and reviews the CBC every three years. The Commission makes certain State modifications, and adopts the new code edition for use throughout the State. Once the Commission votes to adopt the new code edition, it will become effective on the first of January of the upcoming year, regardless of whether local cities or counties formally adopt it. The current version, the 2019 California Buildings Standard Code, became effective on July 1, 2019.

The California Building Standards Code is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by State agencies without change from building standards contained in national model codes.
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions.

- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

In the context of earthquake hazards, the CBC's design standards have a primary objective of assuring public safety and a secondary goal of minimizing property damage and maintaining function during and following a seismic event. Recognizing that the risk of severe seismic ground motion varies from place to place, the CBC seismic code provisions will vary depending on location (Seismic Zones 0, 1, 2, 3, and 4; with 0 being the least stringent and 4 being the most stringent). The earthquake design requirements take into account the occupancy category of the structure, Site Class, soil classifications, and various seismic coefficients, which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site and ranges from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC. Counties and cities may modify their adoption of the CBC to address local conditions. Most California cities and counties modify the State adopted version of the CBC to address local circumstances related to the local climate, topography, or geology. Since modifications cannot be less restrictive, the CBC provides a minimum standard for protecting public health, safety, and welfare that applies throughout the study area.

Local

City of Fresno General Plan: The General Plan is a set of goals, objectives, and policies that form a blueprint for the physical development of the city. The following objective and policies related to agricultural resources are presented in the General Plan:

- **Objective NS-2:** Minimize risks of property damage and personal injury posed by geologic and seismic risks.
- **Policy NS-2-a: Seismic Protection.** Ensure seismic protection is incorporated into new and existing construction, consistent with the Fresno Municipal Code.

4.7.3 Impact Analysis

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.

Less than Significant Impact. The Project site and its vicinity are located in an area traditionally characterized by relatively low seismic activity. The site is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (PRC Section 2622). The nearest active fault to the Project is the San Joaquin Fault, located approximately 59 miles west of the Project site. The nearest major fault is the San Andreas Fault, approximately 72 miles southwest. Based on this information, the Project would not directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving the rupture of a known earthquake fault. The impact would be less than significant.

ii. Strong seismic ground shaking?

Less than Significant Impact. As discussed above, the Project site and its vicinity are located in an area traditionally characterized by relatively low seismic activity. The site is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (PRC Section 2622).

Although there are no known earthquake faults within the vicinity of the Project, and strong ground shaking is unlikely, construction of the proposed residential structures would comply with the most recent seismic standards as set forth in the CBC. Compliance with these standards would ensure potential impacts related to strong seismic ground shaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. According to the DOC's Earthquake Zones of Required Investigation map, the Project site is not located in an area identified to be at a risk of liquefaction. Like most of California, the Project site is in an area that does experience seismic related activity to varying degrees. However, it is not located in the vicinity of a fault zone or an identified area that would result in substantial seismic related ground failure that would result in adverse effects to people or the environment.

iv. Landslides?

Less than Significant Impact. Landslides usually occur in locations with steep slopes and unstable soils. The Project is located on the Valley floor where no major geologic landforms exist, and the topography is essentially flat and level. Therefore, the Project site has minimal-to-no landslide susceptibility, and there would be no impact.

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

Less than Significant Impact. Earthmoving activities associated with the Project would include excavation, trenching, grading, and construction over an area of approximately 3 acres. These activities could expose soils to erosion processes however, the extent of erosion would vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, and construction of linear underground or overhead facilities associated with residential construction, but does not include regular maintenance activities performed to restore the original lines, grade, or capacity of the overhead or underground facilities. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer. Since the Project site has relatively flat terrain with a low potential for soil erosion and would comply with SWRCB requirements, the Project's impacts would be less than significant.

- c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. Soils of the Project site consist of Hanford loam, which is coarse-textured, low in clay content, and well-drained. It is well drained and has moderately rapid permeability and very low runoff, and therefore, is not considered expansive soils. Furthermore, the aforementioned physical properties of these soils make subsidence, liquefaction, lateral spreading, or other ground failure unlikely. Any impacts would be considered less than significant.

- d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. The Project would not be located on expansive soil creating a substantial direct or indirect risk to life or property. The Project would be located on land consisting entirely of Hanford fine sandy loam, clay loam substratum according to the Natural Resources Conservation Service Web Soil Survey of the Project site. The soil is not expansive. Therefore, there would be 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 wastewater?

No Impact. The Project would be required to connect to the City's sewer system. Septic installation or alternative wastewater disposal systems are not necessary for the Project. There would be no impact.

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

Less than Significant Impact with Mitigation Incorporated. No known paleontological resources have been identified or are known to exist on the Project site. However, if a paleontological resource is found on site, the incorporation of mitigation measure **GEO-1** would reduce impacts to less than significant.

4.7.4 Mitigation

GEO-1 Should paleontological resources be encountered on the Project site, all ground disturbing activities in the area shall stop. A qualified paleontologist shall be contacted to assess the discovery. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City of Visalia for review, and (if paleontological materials are recovered) a paleontological repository, such as the University of California Museum of Paleontology.

4.8 GREENHOUSE GAS EMISSIONS

Table 4-14: Greenhouse Gas Emissions Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.8.1 Baseline Conditions

Commonly identified GHG emissions and sources include the following:

Carbon dioxide (CO₂) is an odorless, colorless natural greenhouse gas. CO₂ is emitted from natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood.

Methane (CH₄) is a flammable greenhouse gas. A natural source of methane is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and ruminants such as cattle.

Nitrous oxide (N₂O), also known as laughing gas, is a colorless greenhouse gas. N₂O is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load.

Water vapor is the most abundant, and variable greenhouse gas. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.

Ozone (O₃) is known as a photochemical pollutant and is a greenhouse gas; however, unlike other greenhouse gases, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Ozone is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds, nitrogen oxides, and sunlight.

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. CFCs destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic chemicals that are used as a substitute for CFCs. Of all the greenhouse gases, HFCs are one of three groups (the other two are perfluorocarbons and sulfur hexafluoride) with the highest global warming potential. HFCs are human-made for applications such as air conditioners and refrigerants.

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere; therefore, PFCs have long atmospheric lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest global warming potential of any gas evaluated. SF₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth, and what the effects of clouds will be in determining the rate at which the mean temperature will increase. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, air pollution episodes, and the consequence of these effects on the economy.

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO₂ to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO₂, CH₄, and N₂O have increased 31 percent, 151 percent, and 17 percent respectively since the year 1750 (CEC 2008). GHG emissions are typically expressed in carbon dioxide-equivalents (CO₂e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH₄ has the same contribution to the greenhouse effect as approximately 21 tons of CO₂. Therefore, CH₄ is a much more potent GHG than CO₂.

4.8.2 Applicable Regulations

Federal

Clean Air Act

The EPA is the federal agency responsible for executing the CAA and its amendments. In 2007, the U.S. Supreme Court ruled that carbon dioxide (CO₂) is an air pollutant as defined under the CAA, and thus the EPA has the authority to regulate GHG emissions. The ruling resulted in the EPA taking steps to regulate GHG emissions and lend support for State and local agency in their efforts to reduce GHG emissions.

Federal Regulations for Vehicle Fuel Economy Standards

The EPA and the NHTSA in 2012 issued final rules to reduce GHG emissions and improve the Corporate Average Fuel Economy (CAFE) standards for light-duty vehicles of model years 2017 and beyond. These CAFE standards have been enacted since 1978 under the Energy Policy and Conservation Act. This program requires automobile manufacturers to build a single nation light-duty fleet that meets both the requirements under federal programs and those of California and other states. This program would improve fuel economy to 54.5 miles per gallon-equivalent limiting vehicle emissions to 153 grams of CO₂

per mile for the fleet of cars and light-duty trucks by model year 2025, which represents five percent annual increases in fuel economy.

The EPA and NHTSA jointly published in 2018 a notice of proposed rulemaking entitled “The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks” (SAFE Rule), which proposed:

1. new and amended CO₂ and CAFE standards for passenger cars and light trucks,
2. to withdraw the waiver EPA had previously provided to California for that State’s GHG and zero emission vehicle (ZEV) programs under Section 209 of the CAA, and
3. regulatory text to implement NHTSA’s statutory authority to set nationally applicable fuel economy standards to explicitly preempt California’s GHG and ZEV programs.

In 2019, Part One of the SAFE Rule (One National Program) became effective, which withdrew California’s waiver from EPA and finalized NHTSA’s regulatory text related to preemption of State regulations. In 2020, EPA and NHTSA announced Part Two of the SAFE Rule, which would establish amended fuel economy and CO₂ standards for passenger cars and light trucks of model years 2021-2026. These revised standards would increase in stringency by 1.5 percent per year from model year 2020 over model years 2021-2026

State

Executive Order (EO) S-3-05

In 2005, Governor Schwarzenegger issued EO S-3-05, proclaiming that California is vulnerable to the impacts of climate change. The EO declares that increasing temperatures could reduce the Sierra Nevada snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To address those concerns, the EO established GHG emission targets for the State and identified responsibilities for State agencies in meeting the targets. Specifically, statewide emissions are to be reduced to 2000 levels by 2010, 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

Assembly Bill 32

In 2006, AB 32, the California Global Warming Solutions Act of 2006, was signed into law. AB 32 establishes regulations, reporting requirements, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 required that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that:

- a) the statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed.
- b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020.
- c) The [CARB] shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020. [California Health and Safety Code, Division 25.5, Part 3, Section 38551]

Executive Order B-30-15

In 2015, Governor Brown issued EO B-30-15 which established a California GHG reduction target of 40 percent below 1990 levels by 2030. This emission reduction target of 40 percent below 1990 levels by 2030 set the next interim step in the State’s continuing efforts to pursue the long-term target previously established under EO S-3-05 to reach the goal of reducing emissions 80 percent below 1990 levels by 2050. This is consistent with scientifically-established levels needed in the U.S. to limit global warming below 2

degrees Celsius, the threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32

In 2016, SB 32 was signed into law and serve to extend California’s GHG reduction programs beyond 2020. SB 32 amended existing regulations to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030, codifying the 2030 target established by EO B-30-15.

Assembly Bill (AB) 1493 (Pavley)

AB 1493, enacted in 2002, requires the reduction of GHGs from automobiles and light-duty trucks to the maximum extent feasible and cost-effective. In 2004, CARB approved the “Pavley I” regulations that applied to new passenger vehicles beginning with model year 2009 through 2016. Pavley I was anticipated to reduce GHG emissions from regulated vehicles by 30 percent from 2002 levels by 2016. Pavley II was incorporated into Amendments to the Low-Emission Vehicle Program referred to as LEV III. The amendments, which took effect in 2012, apply to vehicles for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025.

Advanced Clean Cars Program

Also in 2012, CARB approved the Advanced Clean Cars program which sought to combine the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of regulatory standards for vehicle model years 2017 through 2025. These regulations strengthen the GHG standard for 2017 models and beyond and would be achieved through existing and more efficient technologies. The program’s ZEV regulation would require battery, fuel cell, and/or plug-in hybrid electric vehicles to comprise up to 15 percent of California’s new vehicle sales by 2025. The program also included a clean fuels outlet regulation designed to support the development of zero-emission hydrogen fuel cell vehicles by requiring increased numbers of hydrogen fueling stations throughout the state. By 2025, when it was assumed the rules would be fully implemented, the statewide fleet of new cars and light trucks would emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions than the statewide fleet in 2016.

Senate Bill 100

In 2018, SB 100 increased California’s Renewable Energy Portfolio targets for utility companies to 52 percent renewables by 2027 and 60 percent renewables by 2030. It also established a new zero-carbon electricity mandate by 2040.

California Building Energy Efficiency Standards (Title 24, Part 6)

CCR Title 24, Part 6, is California’s Energy Efficiency Standards for Residential and Non-Residential Buildings. Title 24 Part 6 was established by California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California’s energy consumption and provide energy-efficiency standards for residential and nonresidential buildings. These standards are typically updated every three years as part of the State’s triennial code update schedule and have resulted in substantial gains in energy efficiency in new construction with each code update cycle. For example, the 2013 Title 24 standards that became effective in 2014 are 23.3 percent more efficient than the previous 2008 standards for residential construction and 21.8 percent more efficient for nonresidential construction. Similarly, the 2016 Title 24 standards that became effective in 2017 are 28 percent more efficient than the 2013 standards for residential construction and are approximately 5 percent more efficient for nonresidential construction.

The 2019 Title 24 Part 6 Building Energy Efficiency Standards were adopted by CEC on May 9, 2018 and took effect on January 1, 2020. The standards are designed to move the State closer to its zero net energy goals for new residential development. It does so by requiring all new residences to install enough renewable energy to offset all the site electricity needs of each residential unit. The Title 24 Building Energy Efficiency Standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary in response to local climatologic, geologic, or topographic conditions, provided that these standards are demonstrated to be cost effective and exceed the energy performance required by Title 24 Part 6.

California Green Building Standards (Title 24, Part 11)

In 2008, the California Building Standards Commission adopted Part 11 of CCR Title 24, titled the California Green Building Standards Code (CALGreen Code) which became effective in 2009 as a voluntary code. The 2019 CALGreen Code standards became effective on January 1, 2020. The CALGreen Code establishes mandatory measures for residential and non-residential building construction and encourages sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

Senate Bill 97

SB 97, enacted in 2007, amended the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. The legislation directed the Governor's Office of Planning and Research to develop draft CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Natural Resources Agency to certify and adopt the State CEQA Guidelines. CEQA Guidelines Section 15183.5, Tiering and Streamlining the Analysis of GHG Emissions, was added as part of the CEQA Guideline amendments that became effective in 2010 and describes the criteria needed in a GHG reduction plan that would allow for the tiering and streamlining of CEQA analysis for development projects.

Senate Bill X7-7

SB X7-7 requires water suppliers to reduce urban per capita water consumption 20 percent from a baseline level by 2020. The production and treatment of water, as well as the treatment of wastewater, requires substantial amount of electricity, and thus there this a direct relationship between water and greenhouse gases.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by 1995, and 50 percent by 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally-safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. AB 341 also established a statewide recycling goal of 75 percent; the 50

percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act.

Climate Change Scoping Plan

In 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the State's 2030 GHG emissions reduction target of 40 percent below 1990 levels and substantially advance toward our 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation. The 2017 Scoping Plan includes a wide variety of goals related to energy efficiency and renewable energy that are intended to help meet the State's 2030 target.

Cap-and-Trade Program

The Cap-and-Trade program was developed to reduce GHG emissions from major emissions sources (covered entities) by setting a firm cap on statewide GHG emissions that is gradually reduced over time while employing market mechanisms to cost-effectively achieve the State's emission-reduction goals. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, including electricity generators, large industrial facilities emitting a specified amount of annual emissions, and distributors of transportation, natural gas, and other fuels, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide the approximately 450 entities covered by the program with the flexibility to seek out and implement the lowest cost options to reduce emissions. All covered entities are required to demonstrate compliance with the cap-and-trade program by implementing GHG reduction activities on-site or through use of free or purchased allowances, or purchase of offsets

Local

City of Fresno Greenhouse Gas Reduction Plan Update

The City of Fresno's GHG Reduction Plan Update was adopted in December 2021 to reduce local community GHG emissions to 40 percent below 1990 levels by the year 2030, consistent with the State objectives set forth by SB 32. The GHG Plan Update outlines strategies that the City will undertake to achieve its proportional share of GHG emission reductions. The GHG Reduction Plan Update includes a Consistency Checklist to help the City provide a streamlined review process for new development projects that are subject to discretionary review pursuant to CEQA.

4.8.3 Impact Analysis

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. Project construction emissions are estimated to generate 294 MTCO₂e. Construction emissions would include off-road construction vehicles, worker vehicles, and delivery vehicles. Project operation emissions would generate 213 MTCO₂e/yr using an operational year of 2023. Operational emissions would include area, energy, mobile, waste, and water sources. This exceeds the existing land use designation's build-out amount of 119 MTCO₂e/yr. The Project must either show consistency with applicable General Plan objectives and policies or provide analysis and measures to incorporate into the project to bring the GHG emissions to a level that is less than or equal to the estimated project emission at maximum buildout of the existing designation(s).

Table 4-15: Project Consistency with Applicable General Plan Policies

Policy	Policy Short Name	Consistency Discussion
LU-2-a	Infill Development and Redevelopment	Consistent with this General Plan policy, the Project proposes to develop on vacant land within the City Limits where urban services are available.
LU-5-f	High Density Residential Uses.	Consistent with this General Plan policy, the Project proposes a high-density residential use that provides walkable access to nearby transit stops.
MT-2-b MT-2-c	Reduce Vehicle Miles Traveled and Trips Reduce VMT through Infill Development	Consistent with these General Plan policies, the Project proposes to locate on vacant land in a Low VMT area.

The Greenhouse Gas Reduction Plan Update stipulates that projects currently designated for residential development that increase development densities and comply with the relevant GHG reduction strategies in the General Plan are considered to have a less than significant GHG impact. As the Project will be required to comply with all relevant GHG reduction strategies in the General Plan, and the Project proposes to increase the residential density of the Project site, the Project will have a less than significant impact.

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

Less than Significant Impact. The Greenhouse Gas Reduction Plan Update stipulates that projects currently designated for residential development that increase development densities and comply with the relevant GHG reduction strategies in the General Plan are considered to have a less than significant GHG impact. As the Project will be required to comply with all relevant GHG reduction strategies in the General Plan, and the Project proposes to increase the residential density of the Project site, the Project will have a less than significant impact.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Table 4-16: Hazards and Hazardous Materials Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.9.1 Baseline Conditions

Hazardous Materials

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. GC Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese List data (DTSC, 2010).

In addition to the EnviroStor database, the SWRCB Geotracker database provides information on regulated hazardous waste facilities in California, including underground storage tank (UST) cases and non-UST cleanup programs, including Spills-Leaks-Investigations-Cleanups sites, Department of Defense sites, and Land Disposal program. Searches of the DTSC EnviroStor database and the SWRCB Geotracker performed on March 24, 2022 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity. The nearest such location is at 1225 North Willow Avenue in Clovis, located approximately 0.5-mile north of the site.

Airports

The Project is located approximately 7.1 miles north of the Fresno International Airport. The Project is not located within any identified airport protection zones within the Fresno County Airport Land Use Compatibility Plan (ALUCP).

Emergency Response Plan

The City's Emergency Preparedness Officer is responsible for ensuring that Fresno's emergency response plans are up-to-date and implemented properly. The Emergency Preparedness Officer facilitates cooperation between City departments and other local, State, and federal agencies, including Fresno County. The Fresno County Office of Emergency Services coordinates the development and maintenance of the Fresno County Operational Area Master Plan.

Sensitive Receptors

Sensitive receptors within the Project's vicinity consist of other residential uses directly to the east and north of the Project site. Adjacent to the Project on the west side there is also a hospice. No other identified concentrations of sensitive receptors such as hospitals or schools are within the Project's vicinity.

4.9.2 Applicable Regulations

Federal

Toxic Substances Control Act. Established in 1976 and amended on December 31, 2002, the Toxic Substances Control Act (TSCA) (15 United States Code [USC] Section 2601-2692) grants the EPA power to require proper reporting, record-keeping, and testing requirements related to chemical substances and/or mixtures. Specifically, the TSCA addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls, asbestos, radon, and lead-based paints. The TSCA establishes the EPA's authority to require the notification of the use of chemicals, require testing, maintain a TSCA inventory, and require those importing chemicals under Sections 12(b) and 13 to comply with certification and/or other reporting requirements. This federal legislation also phased out the use of asbestos-containing materials in new building materials and sets requirements for the use, handling, and disposal of asbestos-containing materials. Disposal standards for lead-based paint wastes are also detailed in the TSCA.

The Emergency Planning and Community Right-To-Know Act. The Emergency Planning and Community Right-To-Know Act (also known as Title III of the Federal Superfund Amendments and Reauthorization Act, or "SARA III") (42 USC Section 11001, et seq.), was established by the EPA to allow for emergency planning at the State and local level regarding chemical emergencies, to provide notification of emergency release of chemicals, and to address community right-to-know regarding hazardous and toxic chemicals. SARA III was designed to increase community access and knowledge about chemical hazards as

well as facilitate the creation and implementation of State/Native American tribe emergency response commissions, responsible for coordinating certain emergency response activities and for appointing local emergency planning committees. Section 1910.1200(c) Title 29 of the Code of Federal Regulations (CFR) defines “chemicals or hazardous materials” for the purposes of SARA III.

Federal Air Regulations, Part 77. The Federal Aviation Administration is charged with the review of construction activities that occur in the vicinity of airports. Its role in reviewing these activities is to ensure that new structures do not result in a hazard to navigation. The regulations in the Federal Air Regulations (14 CFR Part 77) are designed to ensure that no obstructions in navigable air space are allowed to exist that would endanger the public. Proposed structures are also evaluated against Terminal En Route Procedures, which ensure that a structure does not adversely impact flight procedures. Tall structures, including buildings, construction cranes, and cell towers in the vicinity of an airport can be hazardous to the navigation of airplanes. Federal Air Regulations Part 77 identifies the maximum height at which a structure would be considered an obstacle at any given point around an airport. The extent of the off-airport coverage that needs to be evaluated for tall structure impacts can extend miles from an airport facility. In addition, Federal Air Regulations Part 77 establishes standards for determining whether objects constructed near airports will be considered obstructions in navigable airspace, sets forth notice requirements of certain types of proposed construction or alterations, and provides for aeronautical studies to determine the potential impacts of a structure on the flight of aircraft through navigable airspace.

Federal Insecticide, Fungicide, and Rodenticide Act. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC Section 136, et seq.) was originally passed in 1947. It has been amended several times, most extensively in 1972 and in 1996 by the Food Quality Protection Act of 1996, and in 2012 by the Pesticide Registration Improvement Extension Act. The purpose of FIFRA is to establish federal jurisdiction over the distribution, sale, and use of pesticides. It also gives EPA the authority to study the effects of pesticide use. Other key provisions of FIFRA require pesticide applicators to pass a licensing examination for status as “qualified applicators,” create a review and registration process for new pesticide products, and ensure thorough and understandable labeling that includes instructions for use.

Hazardous Materials Transportation Act (HMTA) – Safe Transport of Hazardous Materials. The U.S. Department of Transportation regulates hazardous materials transportation between states under Title 49 CFR Chapter 1, Part 100-185. Within California, the California Department of Transportation (Caltrans) and the California Highway Patrol enforce federal law. Together, these agencies determine driver training requirements, load labeling procedures, and specifications for container types to be used.

Federal Emergency Management Agency (FEMA). With respect to emergency planning, FEMA is responsible for ensuring the establishment and development of policies and programs for emergency management at the federal, State, and local levels. Enforcement of these laws and regulations is delegated to State and local environmental regulatory agencies.

Resource Conservation and Recovery Act. The 1976 federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the origination to their final disposal in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities. The 1984 RCRA amendments provide the framework for a regulatory program designed to prevent releases from Underground Storage Tanks (USTs). The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the

stored material will not corrode the tanks. Owners and operators of USTs had until December 1998 to meet the new tank standards.

Comprehensive Environmental Response, Compensation and Liability Act. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The act was intended to be comprehensive in encompassing both the prevention of, and response to uncontrolled hazardous substances releases. The act deals with environmental response, providing mechanisms for reacting to emergencies and chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for, and respond to, failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

State

California Health and Safety Code. CalEPA has established rules governing the use of hazardous materials and the management of hazardous wastes. HSC Section 25531, et seq., incorporates the requirement of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. HSC Section 25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan (RMP). The RMP must be submitted to the appropriate local authorities, the designated local administering agency, and the EPA for review and approval.

San Joaquin Valley Air Pollution Control District. The SJVACPD has regulations that require compliance with the asbestos demolition and renovation requirements developed by the United States Environmental Protection Agency in the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation, 40 CFR Part 61, Subpart M. (San Joaquin Valley Pollution Control District Asbestos Bulletin, 2012).

Local

City of Fresno General Plan. The General Plan is a set of goals, objectives, and policies that form a blueprint for the physical development of the city. The following objectives and policies related to hazards are presented in the General Plan:

- **Policy PU-3-d: Review Development Applications.** Continue Fire Department review of development applications, provide comments and recommend conditions of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.
- **Policy PU-3-f: Adequate Infrastructure.** Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.
- **Policy NS-4-h: Household Collection.** Continue to support and assist with Fresno County's special household hazardous waste collection activities, to reduce the amount of this material being improperly discarded.
- **Objective NS-6:** Foster an efficient and coordinated response to emergencies and natural disasters.
- **Policy NS-6-d: Evacuation Planning.** Maintain an emergency evacuation plan in consultation with the Police and Fire Departments and other emergency service providers, which shows potential evacuation routes and a list of emergency shelters to be used in case of catastrophic emergencies.

City of Fresno Municipal Code. Chapter 10, Article 14 of the City of Fresno Municipal Code pertains to the recovery of expenses associated with hazardous spills. Specifically, this section states that “Any person causing a release or threatened release which results in an emergency action shall be liable to the City of Fresno for the recoverable costs resulting from the emergency action.”

City of Fresno Emergency Operation Plan. The California Emergency Services Act requires cities to prepare and maintain an emergency plan for emergencies that are natural or caused by man. The City’s adopted Emergency Operations Plan (EOP) plans for emergencies including natural hazards. The EOP does not designate any evacuation routes within the Planning Area.

County of Fresno Multi-Jurisdictional Local Hazard Mitigation Plan. The purpose of a Local Hazard Mitigation Plan is to reduce or eliminate long-term risk to human life and property resulting from hazards. A local hazard mitigation plan recognizes risks before they occur, as well as identifies resources, information, and strategies for emergency response. Fresno County, with participation from 17 jurisdictions, is the lead agency on the Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP). In 2018, the Fresno County Board of Supervisors adopted the LHMP, which includes a Fresno Annex listing information that pertains to the City in the areas of health, infrastructure, housing, government, environment, and land use.

Fresno County Airport Land Use Commission. The Airport Land Use Commission (ALUC) is in existence to protect the public health, safety and welfare by ensuring that orderly development, and prevention of excessive noise and safety hazards around public use airports is followed in accordance to state and local laws. ALUCs establish the policies on land uses around the airport, ensuring they are compatible with airport operations. This is done on an advisory basis. ALUCs also evaluate the compatibility of proposed local agency land use policy actions with the relevant provisions within the associated ALUCP. They review individual development projects to ensure they are within the noise and safety standards, in accordance with state laws and the ALUCP, within the review area of influence of the airport the project is located in

4.9.3 Impact Analysis

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. Small quantities of hazardous materials may be used in conjunction with construction of and the proposed residential use itself. Such hazardous materials could include solvents, paints, stains, pesticides, fungicides, and herbicides. These materials would be limited in type and quantity and would not be different from household chemicals and solvents already being used in households throughout the vicinity and the City. Therefore, the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be 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. The Project would utilize typical household materials such as solvents, paints, and chemicals used for cleaning, maintenance and landscaping and would be required to be handled in compliance with federal, State, and local laws. Therefore, the Project would not 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. Impacts would be less than significant.

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

No Impact. The Project site is not located within one-quarter mile of an existing or proposed school. The nearest school is Mountain View Elementary, approximately 0.61-mile to the west. Also see responses to items a) and b) above.

- 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 does not involve land that is listed as a hazardous materials site pursuant to GC Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. There will 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?

No Impact. The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The Project site is located outside of all of the identified airport protection zones within the Fresno County ALUCP and is slightly more than four miles north of Fresno-Yosemite International Airport; therefore, there will be no impact.

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

Less than Significant Impact. The Project involves a general plan amendment, a rezone, a planned development, and a conditional use permit for the construction and development of a residential subdivision. The residential subdivision would provide one point of access from East Alluvial Avenue. The Project would also provide an emergency access during construction at the west end of the site that provides access to the abutting hospice property. Construction traffic associated with the Project would be minimal and temporary. Operational traffic will consist of vehicle trips associated with residential development. Temporary road closures, detours, or lane diversions may be necessary for connection of utilities and development of residential streets during construction. Disturbances to traffic patterns, such as a potential lane diversion will be temporary and minimal in nature, as there will be alternate routes available. Such construction traffic would require preparation and compliance with a Traffic Control Plan in compliance with the Manual of Uniform Traffic Control Devices. Therefore, Project-related impacts to

emergency evacuation routes or emergency response routes on local roadways would be considered less than significant.

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

Less than Significant Impact. The Project site is located in the northeast portion of the City of Fresno, an urbanized setting approximately 4.5 miles southwest of the nearest State Responsibility Area (SRA)² and approximately 26.4 miles southwest of the nearest very high fire hazard severity zone.³ The Project site would be served by the City of Fresno for its fire protection needs and the City of Fresno Fire Department would include conditions of approval requiring the Project to incorporate certain design features to accommodate fire access. The impact would be less than significant.

² (CAL FIRE n.d.)

³ (CAL FIRE n.d.)

4.10 HYDROLOGY AND WATER QUALITY

Table 4-17: Hydrology and Water Quality Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.10.1 Baseline Conditions

The City of Fresno overlies the Kings Subbasin of the San Joaquin Valley Groundwater Basin (SJV Basin). The Kings Subbasin underlies Fresno, Kings, and Tulare Counties and has a surface area of 976,000 acres (1,530 square miles). The Kings Subbasin has not been adjudicated. The Department of Water Resources classified the Kings Basin as being in a state of critical overdraft in its Bulletin 118-80.⁴

⁴ (State of California Department of Water Resources n.d.)

The SJV Basin comprises the southern portion of the Great Central Valley of California and is bounded to the north by the Sacramento-San Joaquin Delta and Sacramento Valley, to the east by the Sierra Nevada, to the south by the San Emigdio and Tehachapi Mountains, and to the west by the Coast Ranges.

The Kings Subbasin, located within the southern half of the SJV Basin, is bounded to the north by the San Joaquin River, to the east by the alluvium-granite rock interface of the Sierra Nevada foothills, and to the west by the Delta-Mendota and Westside Subbasins. The Kings Subbasin is bounded to the south by the northern boundary of the Empire West Side Irrigation District, the southern fork of the Kings River, the southern boundary of the Laguna Irrigation District, the northern boundary of the Kings County Water District, and the western boundary of Stone Corral Irrigation District.

4.10.2 Applicable Regulations

Federal

Clean Water Act. See [Section 4.4.2](#).

National Pollutant Discharge Elimination System (NPDES) Permit. See [Section 4.4.2](#).

Safe Drinking Water Act (Federal). The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the United States. This SDWA focuses on all waters either designed or potentially designed for drinking water use, whether from surface water or groundwater sources. The SDWA and subsequent amendments authorized the EPA to establish health-based standards, or maximum contaminant levels (MCLs), for drinking water to protect public health against both natural and anthropogenic contaminants. All owners or operators of public water systems are required to comply with these primary (health-related) standards. State governments, which can be approved to implement these primary standards for the EPA, also encourage attainment of secondary (nuisance-related) standards. At the federal level, the EPA administers the SDWA and establishes MCLs for bacteriological, organic, inorganic, and radiological constituents (42 USC and 40 CFR). At the state level, California has adopted its own SDWA, which incorporates the federal SDWA standards with some other requirements specific only to California (HSC Section 116350, et seq.)

The 1996 SDWA amendments established source water assessment programs pertaining to untreated water from rivers, lakes, streams, and groundwater aquifers used for drinking water supply. According to these amendments, the EPA must consider a detailed risk and cost assessment, as well as best available peer-reviewed science, when developing standards for drinking water. These programs are the foundation of protecting drinking water resources from contamination and avoiding costly treatment to remove pollutants. In California, the Drinking Water Source Assessment and Protection (DWSAP) program fulfills these federal mandates. The Division of Drinking Water of the State Water Resources Control Board is the primary agency for developing and implementing the DWSAP program, and is responsible for performing the assessments of existing groundwater sources.

State

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act of 1969, which became Division 7 of the California Water Code, authorized the SWRCB to provide comprehensive protection for California's waters through water allocation and water quality protection. The SWRCB implements the requirement of the CWA Section 303, which states that water quality standards must be established for certain waters through the adoption of water quality control plans under the Porter-

Cologne Act. The Porter-Cologne Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans within the regions, identifying water quality objectives, and instituting waste discharge requirements. Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. Beneficial uses consist of all the various ways that water can be used for the benefit of people and wildlife. The Porter-Cologne Act was later amended to provide the authority delegated from the EPA to issue NPDES permits regulating discharges to Waters of the United States.

Sustainable Groundwater Management Act of 2014. On September 16, 2014, a three-bill legislative package was signed into law comprising AB 1739, SB 1168, and SB 1319, collectively known as the Sustainable Groundwater Management Act (SGMA). The Governor's signing message states "a central feature of these bills is the recognition that groundwater management in California is best accomplished locally". SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with the potential for State intervention if necessary to protect the resource. The act requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally based management plans. The groundwater basin that serves Fresno has been designated by the Department of Water Resources as high-priority and subject to a condition of critical overdraft.

North Kings Groundwater Sustainability Agency. The North Kings GSA is a Joint Powers Authority formed in December 2016 through adoption of a Joint Powers Agreement by the following public agencies: Fresno Irrigation District, the County of Fresno, the City of Fresno, the City of Clovis, the City of Kerman, Biola Community Services District, Garfield Water District, and International Water District. Following adoption, these founding members approved membership of Bakman Water Company and the Fresno Metropolitan Flood Control District through separate binding agreements. The North Kings GSA's jurisdiction includes a portion of the Kings Subbasin that includes the service areas of member agencies consistent with requirements of SGMA.

Local

City of Fresno General Plan. The General Plan is a set of policies and programs that form a blueprint for the physical development of the City. The following objectives and policies related to hydrology and water quality are presented in various elements of the General Plan:

- **Policy POSS-6-b: Effects of Stormwater Discharge.** Support efforts to identify and mitigate cumulative adverse effects on aquatic life from stormwater discharge to the San Joaquin River.
 - Avoid discharge of runoff from urban uses to the San Joaquin River or other riparian corridors.
 - Approve development on sites having drainage (directly or indirectly) to the San Joaquin River or other riparian areas only upon a finding that adequate measures for preventing pollution of natural bodies of water from their runoff will be implemented.
 - Periodically monitor water quality and sediments near drainage outfalls to riparian areas. Institute remedial measures promptly if unacceptable levels of contaminant(s) occur.
- **Policy PU-7-a: Reduce Wastewater.** Identify and consider implementing water conservation standards and other programs and policies, as determined appropriate, to reduce wastewater flows.
- **Policy PU-8-c: Conditions of Approval.** Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.

- **Policy PU-8-g: Review Project Impact on Supply.** Mitigate the effects of development and capital improvement projects on the long-range water budget to ensure an adequate water supply for current and future uses.
- **Objective RC-6.** Ensure that Fresno has a reliable, long-range source of drinkable water.
- **Policy RC-6-c: Land Use and Development Compliance.** Ensure that land use and development projects adhere to the objective of the Fresno Metropolitan Water Resources Management Plan to provide sustainable and reliable water supplies to meet the demand of existing and future customers through 2025.
- **Policy RC-6-h: Conditions of Approval.** Include in the Development Code standards for imposing conditions of approval for development projects to ensure long-term maintenance of adequate clean water resources. Require findings that adequate water supply must exist prior to any discretionary project approval for residential and commercial development requiring annexation, as required by law.
- **Objective RC-7.** Promote water conservation through standards, incentives and capital investments.
- **Policy RC-7-b: Water Pricing and Metering.** Develop a tiered water cost structure for both residential and commercial users that will properly price water based on its true cost; require all new development to be metered for water use; and charge all customers the true, full cost of their water supply, including costs of acquisition, initial treatment, conveyance, wastewater treatment, operations, maintenance, and remediation.
- **Policy RC-7-c: Best Practices for Conservation.** Require all City facilities and all new private development to follow U.S. Bureau of Reclamation Best Management Practices for water conservation, as warranted and appropriate.
- **Policy RC-7-d: Update Standards for New Development.** Continue to refine water saving and conservation standards for new development.
- **Policy RC-7-f: Implementation and Update Conservation Program.** Continue to implement the City of Fresno Water Conservation Program, as may be updated, and periodically update restrictions on water uses, such as lawn and landscape watering and the filling of fountains and swimming pools, and penalties for violations. Evaluate the feasibility of a 2035 conservation target of 190 gpcd in the next comprehensive update of the City of Fresno Water Conservation Program.
- **Policy RC-7-h: Landscape Water Conservation Standards.** Refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance and other State regulations.
 - Evaluate and apply, as appropriate, augmented xeriscape, “water-wise,” and “green gardening” practices to be implemented in public and private landscaping design and maintenance.
 - Facilitate implementation of the State’s Water Efficient Landscape Ordinance by developing alternative compliance measures that are easy to understand and observe.
- **Objective NS-3.** Minimize the risks to property, life, and the environment due to flooding and stormwater runoff hazards.
- **Policy NS-3-a: Stormwater Drainage and Flood Control Master Plan.** Support the full implementation of the [Fresno Metropolitan Flood Control District] FMFCD Storm Drainage and Flood Control Master Plan, the completion of planned flood control and drainage system facilities, and the continued maintenance of stormwater and flood water retention and conveyance facilities and capacities. Work with the FMFCD to make sure that its Storm Drainage and Flood Control Master Plan is consistent with the General Plan.

- **Policy NS-3-b: Curb and Gutter Installation.** Coordinate with Fresno Metropolitan Flood Control District (FMFCD) to install curbing, gutters, and other drainage facilities with priority to existing neighborhoods with the greatest deficiencies and consistent with the Storm Drainage and Flood Control Master Plan.
- **Policy NS-3-e: Pollutants.** Work with FMFCD to prevent and reduce the existence of urban stormwater pollutants pursuant to the requirements of the National Pollution Discharge Elimination Systems Act.
- **Policy NS-3-i: New Development Must Mitigate Impact.** Require new development to not significantly impact the existing storm drainage and flood control system by imposing conditions of approval as project mitigation, as authorized by law. As part of this process, closely coordinate and consult with the FMFCD to identify appropriate conditions that will result in mitigation acceptable and preferred by FMFCD for each project.

City of Fresno Municipal Code. The City's Urban Storm Water Quality Management and Discharge Control Ordinance (FMC Chapter 6, Article 7) establishes provisions regarding stormwater discharges. Its purpose is to ensure the health, safety, and general welfare of citizens and protect the water quality of watercourses and water bodies in a manner pursuant to and consistent with the CWA by reducing pollutants in urban stormwater discharges to the maximum extent practicable and by effectively prohibiting non-stormwater discharges to the storm drain system.

The Fresno Flood Plain Ordinance (FMC Chapter 11, Article 6) establishes methods of reducing flood losses by: restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards or flood heights or velocities; requiring that uses vulnerable to floods be protected against flood damage at the time of initial construction; controlling filling, grading, dredging, and other development which may increase flood damage; preventing or regulating the construction of flood barriers which will unnaturally divert flood water or which may increase flood hazards in other areas; and controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters.

4.10.3 Impact Analysis

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

Less than Significant Impact. Surface runoff from the Project will be accommodated by an existing ponding facility located northwest of the Project. In compliance with State regulations, all development within the Project site would be required to comply with State regulations adopted to reduce groundwater degradation, including preparation of a SWPPP for projects that exceed specified size limits. The Project would be required to obtain approval of its SWPPP prior to construction. Therefore, the Project would have a less than significant impact through implementation of planned Project design features compliance with the requirements of the FMFCD, and through compliance with adopted SWPPP regulations. The impact would be less than significant.

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

Less than Significant Impact. The proposed 28-unit development is within the City’s water service area. According to the City of Fresno 2020 Urban Water Management Plan (UWMP), residential land uses would consume approximately 198 gallons per capita per day. The Project would increase water consumption by approximately 19 acre-feet per year. To determine whether the increase is significant, a comparison to the supplies and demands of the General Plan land uses, and whether the increase would result in a deficit or exacerbate an existing or planned deficit.

Table 4-18: Comparison of Water Demand of Existing and Proposed Planned Land Uses

Comparison of Water Demand of Existing and Proposed Planned Land Uses						
General Plan Land Use	Dwelling Units	Average Household Size	Population	Gallons Per Capita Per Day (GPCD)	Gallons Per Day (GPD)	Acre-Feet Per Year (AFY)
Low Density Residential (Existing)	10	3.07	30.7	198	6,078.6	6.81
Medium Density Residential (Proposed)	28	3.07	85.96	198	17,020.1	19.06

Table 4-19: Review of Project Water Demand Impacts through 2045

Review of Project Water Demand Impacts through 2045					
	2025	2030	2035	2040	2045
Planned Supply	329,030	341,140	346,610	352,000	357,330
Planned Demand	199,204	212,756	222,310	231,876	241,447
plus Project	19	19	19	19	19
Total Demand	199,223	212,775	222,329	231,895	241,466
Surplus/(Deficit)	129,807	128,365	124,281	120,105	115,866
Significant Impact?	No	No	No	No	No

Source: 2020 UWMP Table 7-1

It is expected that the City would encounter dry years and, in worst case, multiple dry years. Below is an analysis of the City’s water supply, and its surpluses, with or without the Project. As depicted below in [Table 4-20](#), the Project would not cause a water supply deficit during multiple dry years.

Table 4-20: Review of Project Water Demand Impacts during Drought Conditions through 2045

Review of Project Water Demand Impacts during Drought Conditions through 2045						
		2025	2030	2035	2040	2045
First Year	Existing	74,521	66,509	62,425	58,249	54,008
	Existing plus Project	74,540	66,528	62,444	58,268	54,027
Second Year	Existing	75,422	67,410	63,326	59,150	54,909
	Existing plus Project	75,441	67,429	63,345	59,169	54,928
Third Year	Existing	27,301	29,471	30,842	32,215	33,589
	Existing plus Project	27,320	29,490	30,861	32,234	33,608
Fourth Year	Existing	27,301	29,471	30,842	32,215	33,589
	Existing plus Project	27,320	29,490	30,861	32,234	33,608
Fifth Year	Existing	115,636	107,624	103,540	99,364	95,123
	Existing plus Project	115,655	107,643	103,559	99,383	95,142
Significant Impact?		No	No	No	No	No

Source: 2020 UWMP Table 7-3

The Project must comply with the requirements of the Department of Public Works and the Department of Public Utilities (DPU) for the construction of water, wastewater, and storm water drainage infrastructure. In addition, the developer will be responsible for the payment of development impact fees to off-set potential impacts to regional facilities. The FMFCD has developed an urban drainage design concept that collects, drains, and retains surface water runoff for intentional groundwater recharge in ponding basins dispersed throughout the city. The Project would utilize the existing ponding basin located northwest of the Project site.

The City's water supply derives from groundwater, imported water, surface water sources, and limited amounts of recycled water. The City anticipates increasing its surface water treatment supplies from 108,739 AFY in 2020 to 191,600 AFY in 2045.⁵ The Southeast Surface Water Treatment Facility was completed in 2017 to reduce dependency on groundwater and alleviate groundwater depletion. The City's Recycled Water Master Plan (2010) indicates the City is planning to increase and/or provide tertiary treatment of wastewater for landscape and irrigation purposes in new growth areas and existing

⁵ (City of Fresno 2021). UWMP Table C-3.

landscaped areas throughout the City's service area. According to the City's 2020 UWMP, the City relies on surface water deliveries during normal water years and groundwater during dry years. Intentional recharge augmentation is reliable throughout all hydrologic conditions. Therefore, according to the City's UWMP the Project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin and the City has sufficient water supplies available to serve the Project and its existing commitments during normal, dry, and multiple dry years. 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 Impact. The Project site does not contain any waterways and therefore implementation of the Project would not alter the course of a stream or river. However, the Project would require grading or soil exposure during construction. If not controlled, the transport of these materials via local stormwater systems into local waterways could temporarily increase sediment concentrations. To minimize this impact, the proposed Project would be required to comply with all of the requirements of the State Construction General Permit and submittal of a SWPPP prior to start of construction activities. Mandatory compliance with State regulations would ensure that impacts from erosion and siltation would be less than significant.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than Significant Impact. The Project site is not located within a flood-prone area. FMFCD has stated that its facilities have sufficient capacity to serve the Project.⁶ Runoff from the site will be directed to E. Alluvial Avenue, where it will enter existing drain inlets and be conveyed via an existing pipeline to the FMFCD drainage basin west of the site. The impact would be less than significant.

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
or

Less than Significant Impact.

The Project site would alter the existing drainage pattern, but the Project would direct runoff to the existing drainage basin located northwest of the Project site which has capacity to take in more runoff. The requirement to construct onsite curb and gutter to direct drainage the existing basin would ensure impacts to be less than significant.

iv. impede or redirect flood flows?

No Impact. The Project site is not located in a flood plain, therefore it would not impede or redirect flood flows. There would be no impact.

⁶ (Fresno Metropolitan Flood Control District 2022)

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

No Impact. The Project is not located within a flood zone, a flood plain, or a flood-prone area. The nearest flood zone is located approximately 1.2 miles southeast of the Project (see [Figure 4-2](#)). The Project is not located in a flood hazard, tsunami, or seiche zone; therefore, there would be no risk release of pollutants. There would be no impact.

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

Less than Significant Impact. Applicable water quality control plans for the City of Fresno are included within the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins. The City is currently in compliance with all facets of the water quality control plan. The City is a member of the North Kings GSA. In accordance with SGMA, GSAs located in areas in critical overdraft are required to adopt Groundwater Sustainability Plans by 2020. The North Kings GSA adopted its plan on November 21, 2019. The City of Fresno has several projects in the Groundwater Sustainability Plan, shown in [Table 4-21](#) as follows.

Table 4-21: City of Fresno Groundwater Projects

Project	Description	Benefit	Milestone Year
Residential Water Meter Retrofit Project	Residential meter installation contracts commenced in 2010 and run through the end of 2012. Per capita water consumption from 2007 through 2011 averaged 277 gpcd. Per capita consumption after meters were installed, excluding the drought period of 2012-2016, averages 201 gpcd (2017 & 2018). The population at the end of 2011 was 513,358. Applying the per capita water consumption values from before and after meter installation yields a 43,600 AF reduction for the base 2011 population.	43,600 AF/yr	2015
T-3 Surface Water Treatment Facility	Construction of a 3 MG water storage tank and 4-MGD surface water treatment facility (with possible future expansion to 8-MGD). The project will include, engineering & design, construction of tank, booster pumps, operations and treatment buildings, and associated site improvements.	2,210 AF/yr	2015
Southwest Reclamation Facility and Distribution System	This project includes the design and construction of an initial 5-MGD tertiary treatment facility and transmission and distribution system. The reclaimed water produced and distributed in the southwest region will provide a direct potable water offset, thus reducing the reliance on and use of groundwater supplies.	5,140 AF/yr	2020
Nielsen Recharge Facility	Expand the City's groundwater recharge program and includes land acquisition, development of new recharge basins, structures and conveyance systems such as pipelines, canal turnouts, metering systems, and interties. The project goal is to optimize groundwater recharge efforts so as to balance groundwater extractions as laid out in the City's 2014 Metropolitan Water Resources Plan.	3,500 AF/yr	2020
Southeast Surface Water Treatment Facility	Design, construction, start-up, and commissioning of the new Southeast Surface Water Treatment Facility (SESWTF) and associated large diameter transmission mains. New facility is required to treat surface water diverted from the Kings River through canal and raw water pipeline system. Historically, the City has largely relied on groundwater to meet municipal water demands. The SESWTF will utilize surface water supplies and permit the balanced use of both groundwater and surface water, thus greatly reducing groundwater extractions.	82,240 AF/yr	2020

Project	Description	Benefit	Milestone Year
Northeast Surface Water Treatment Facility Expansion	The NESWTF Expansion Project is part of the City's near-term program to attain and maintain the sustainable use of water resources. This project is for the 30-MGD expansion of the existing surface water treatment facility for a total capability of 60-MGD. To enable water from the expansion to reach further into the City large diameter transmission mains will also be constructed. This project will meet future growth demands and ensure groundwater utilization attains and remains at safe-yield levels.	30,840 AF/yr	2025
Southeast Reclamation Facility and Distribution System	As part of the City's long-term goal to utilize resources sustainably the development of a recycled water program will be key. This project includes design and construction of an initial 8-MGD tertiary treatment facility with transmission and distribution mains. The reclaimed water produced and distributed in the southeast region will provide a direct potable water offset, thus reducing the reliance on and use of groundwater supplies.	8,227 AF/yr	2030

A project would obstruct implementation of a Sustainable Groundwater Management Plan if it prevented the development of identified projects to sustainably maintain groundwater. As the Project does not seek to develop on property identified for these groundwater management projects, the Project will therefore have a less than significant impact.

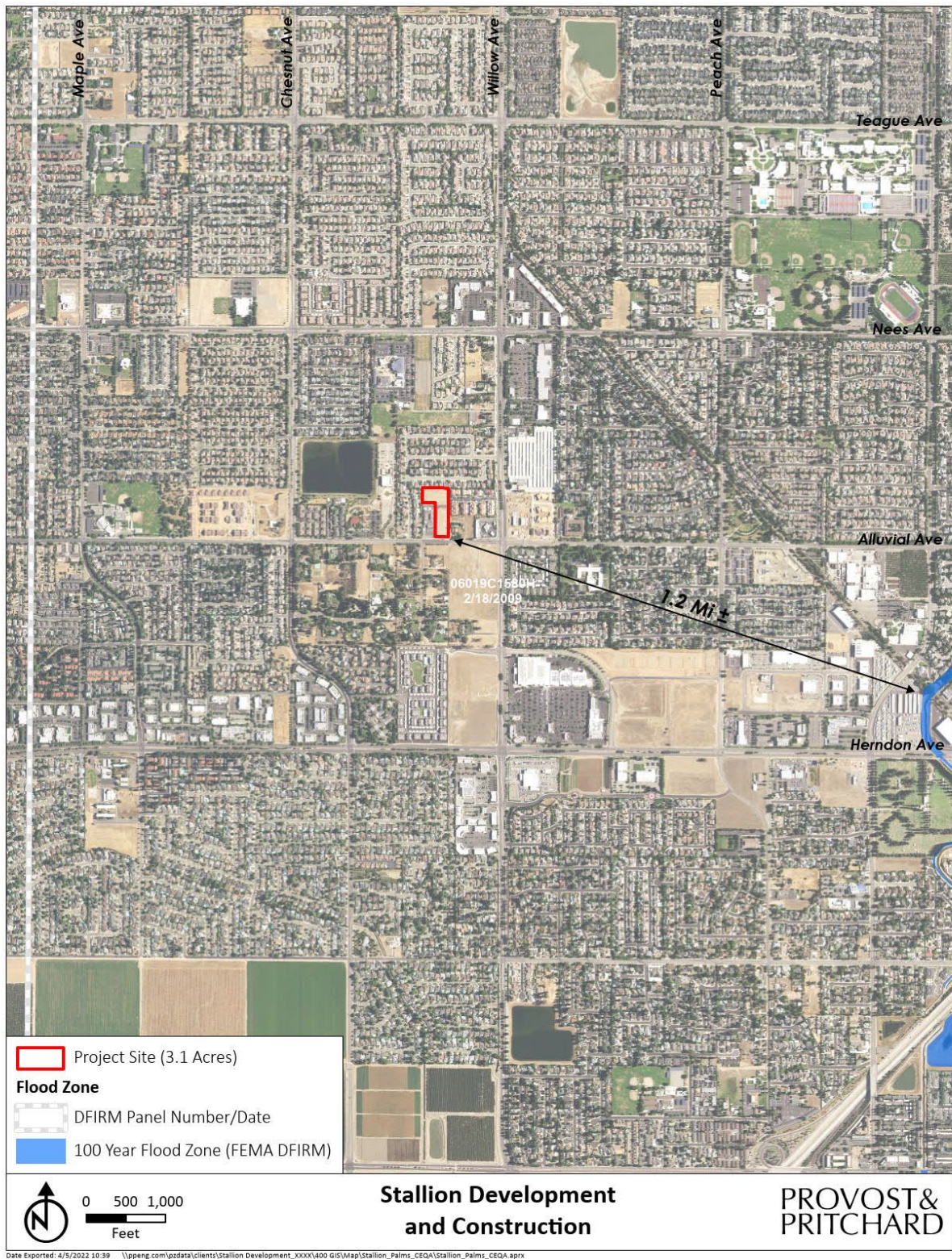


Figure 4-2: FEMA Flood Map

4.11 LAND USE AND PLANNING

Table 4-22: Land Use and Planning Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.11.1 Baseline Conditions

The Project site is currently vacant and is surrounded by a residential subdivision to the north, a residential care facility to the west, residential lots to the south and additionally multi-family residential development to the east. Refer to [Table 4-23](#) below for a list of existing uses, General Plan land use designations, and zoning districts.

Table 4-23: Existing Land Use, General Plan, and Zoning

Direction	Existing Land Use	General Plan	Zoning
North	Single-Family Residential	Residential-Low Density	RS-4 (Residential Single-Family, Medium Low Density)
South	Single-Family Residential	Residential	RR (Rural Residential)
East	Multi-Family Residential	Residential- Medium High Density	RM-1 (Residential Multi-Family, Medium High Density)
West	Residential Care Facility	Residential-Low Density	RS-3 (Residential Single Family, Low Density)

4.11.2 Applicable Regulations

City of Fresno General Plan. The General Plan is a set of goals, objectives, and policies that form a blueprint for the physical development of the City. The following objective and policies related to land use and planning are presented in the General Plan:

- **Objective: UF-1.** Emphasize the opportunity for a diversity of districts, neighborhoods, and housing types.
- **Policy UF-1-f. Complete Neighborhoods, Densities, and Development Standards.** Use Complete Neighborhood design concepts and development standards to achieve the development of Complete Neighborhoods and the residential density targets of the General Plan.
- **Policy UF-14-a. Design Guidelines for Walkability.** Develop and use design guidelines and standards for a walkable and pedestrian-scaled environment with a network of streets and connections for pedestrians and bicyclists, as well as transit and autos.
- **Policy UF-14-b. Local Street Connectivity.** Design local roadways to connect throughout neighborhoods and large private developments with adjacent major roadways and pathways of

existing adjacent development. Create access for pedestrians and bicycles where a local street must dead end or be designed as a cul-de-sac to adjoining uses that provide services, shopping, and connecting pathways for access to the greater community area.

- **Objective LU-1.** Establish a comprehensive citywide land use planning strategy to meet economic development objectives, achieve efficient and equitable use of resources and infrastructure, and create a attractive living environment.
- **Objective LU-2.** Plan for infill development that includes a range of housing types, building forms, and land uses to meet the needs of both current and future residents.
- **Objective LU-5.** Plans for a diverse housing stock that will support balanced urban growth, and make efficient use of resources and public facilities.
- **Policy LU-5-c. Medium Density Residential Uses.** Promote medium density residential uses to maximize efficient use of residential property through a wide range of densities.
- **Policy LU-5-g. Scale and Character of New Development.** Allow new development in or adjacent to established neighborhoods that is compatible in scale and character with the surrounding area by promoting a transition in scale and architectural character between new buildings and established neighborhoods, as well as integrating pedestrian circulation and vehicular routes.
- **Policy LU-11-c. General Plan Consistency.** Pursue coordinated planning and development project reviews with relevant federal, State, and local public agencies to ensure consistency with this General Plan.

4.11.3 Impact Analysis

a) Would the project physically divide an established community?

No Impact. The Project would develop an approximately 3.1-acre infill site in northeast Fresno adjacent to existing residential development and a care facility. The Project would not result in the removal of any existing housing. It does not propose to vacate or abandon existing rights-of-way, nor does it require dedication of additional right-of-way. The Project would not physically divide an established community, and there would be no impact.

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

Less than Significant Impact. The Project proposes a new residential development consistent with the medium density residential land use designation. Potential conflicts between the Project and the General Plan and other regional plans and documents adopted for the purpose of avoiding or mitigating an environmental effect could result in a potentially significant impact with regard to land use and planning. Consistency with applicable General Plan Policies is provided in **Table 4-24**.

Table 4-24. Project Consistency with Applicable General Plan Policies

Policy	Policy Short Name	Consistency Discussion
UF-1-a	Diverse Neighborhoods	Consistent with this General Plan policy, the Project proposes to provide a diverse urban/suburban neighborhood density type.
UF-1-f	Complete Neighborhoods, Densities, and Development Standards	Consistent with this General Plan policy, the Project proposes to provide complete neighborhood design concepts that would be consistent with development standards and incorporate blending of densities within the subdivision design.
UF-14-a	Design Guidelines for Walkability	Consistent with this General Plan policy, the Project proposes to develop a bicycle and pedestrian path to provide for a walkable and pedestrian-scaled environment

Policy	Policy Short Name	Consistency Discussion
		with a network of streets that offer connections to the paths for pedestrians and bicyclists, as well as providing access to transit stops and roadways.
LU-5-c	Medium Density Residential Use	Consistent with this General Plan policy, the Project proposes a plan amendment from its current use to Medium Density Residential.
LU-5-g	Scale and Character of New Development	Consistent with this General Plan policy, the Project proposes a residential development surrounded by existing residential development.

As described, the Project would be consistent with applicable General Plan policies and would not conflict with any applicable land use plan for the City, nor any specific plan, policy, or City regulations adopted for the purpose of avoiding or mitigating environmental effects and will have a less than significant impact.

4.12 MINERAL RESOURCES

Table 4-25: Mineral Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.12.1 Baseline Conditions

The Project is located in central Fresno County, in the southern section of California’s Great Valley Geomorphic Province, or Central Valley. Historically, Fresno County has been a leading producer of a variety of minerals including aggregate, fossil fuels, metals, and other materials used in construction or in industrial processes. Currently, aggregate and petroleum are the County’s most significant mineral resources.⁷

4.12.2 Applicable Regulations

State

Surface Mining and Reclamation Act. In 1975, the California Legislature enacted the Surface Mining and Reclamation Act, which, among other things, provided guidelines for the classification and designation of mineral lands. Areas are classified on the basis of geologic factors without regard to existing land use and land ownership. The areas are categorized into four Mineral Resource Zones (MRZs):

- MRZ-1: An area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3: An area containing mineral deposits, the significance of which cannot be evaluated.
- MRZ-4: An area where available information is inadequate for assignment to any other MRZ zone.

Of the four categories, lands classified as MRZ-2 are of the greatest importance. Such areas are underlain by demonstrated mineral resources or are located where geologic data indicate that significant measured or indicated resources are present. MRZ-2 areas are designated by the State of California Mining and Geology Board as being “regionally significant.” Such designations require that a Lead Agency’s land use decisions involving designated areas are to be made in accordance with its mineral resource management policies and that it consider the importance of the mineral resource to the region or the State as a whole, not just to the Lead Agency’s jurisdiction

⁷ (County of Fresno 2000)

4.12.3 Impact Analysis

- 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?

Less than Significant Impact. The Project is located in an MRZ-3 zone. The MRZ-3 zone, as discussed above, is defined as an area containing mineral deposits, the significance of which cannot be evaluated. Therefore, there are no known mineral resources that would be of value to the region and residents of the State, and impacts would be less than significant.

- 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 land use plan?

Less than Significant Impact. The Project is located in an MRZ-3 zone and is not delineated on an applicable land use plan as a locally-important mineral resource recovery site. The MRZ-3 Zone, as discussed above, is defined as an area containing mineral deposits, the significance of which cannot be evaluated. The Project site does not contain economically-viable soils. There are no known current or historic mineral resource extraction or recovery operations in the Project vicinity nor are there any known significant mineral resources onsite. There would be a less than significant impact related to mineral resources.

4.13 NOISE

Table 4-26: Noise Impacts

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.13.1 Baseline Conditions

The Project site is a vacant lot, substantially surrounded by urban uses to all sides. Single-family residences area located to the north and west, with an apartment complex to the east. The Project is bordered to the south by E. Alluvial Avenue, which is classified as a collector street by the City of Fresno General Plan Circulation Element. E. Alluvial Avenue intersects with N. Willow Avenue, an arterial street, approximately 330 feet to the east. Traffic noise from vehicles using these two major streets is presumably the primary noise source in the area, based on the aforementioned surrounding land uses.

4.13.2 Applicable Regulations

Federal

United States Environmental Protection Agency. In 1972, Congress enacted the United States Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss levels) and welfare (annoyance levels). For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to 70 A-weighted decibels (dBA) during a 24-hour period of time. At 55 dBA Day-Night Average Sound Level (L_{dn}), 95 percent sentence clarity (intelligibility) may be expected at 11 feet, with no community reaction. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance. The EPA cautions that these identified levels are guidelines, not standards.⁸

⁸ (U.S. Environmental Protection Agency 1974)

Federal Vibration Impact Standards. Vibration impact criteria included in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual⁹ are used in this analysis for ground borne vibration impacts on human annoyance, as shown in Table 4-27 below. The criteria presented in Table 4-27 account for variation in project types as well as the frequency of events, which differ widely among projects. It is intuitive that when there will be fewer events per day, it should take higher vibration levels to evoke the same community response.

Table 4-27: Ground borne Vibration and Noise Impact Criteria

Land Use Category	Ground borne Vibration Impact Levels (VdB re 1 micro-inch/sec)		Ground borne Noise Impact Levels (dB re 20 micro-Pascals)	
	Frequent Events ^a	Infrequent Events ^b	Frequent Events ^a	Infrequent Events ^b
Category 1: Buildings in which low ambient vibration is essential for interior operations (i.e., vibration-sensitive manufacturing, hospitals with vibration sensitive equipment, and university research operation)	65 VdB ^c	65 VdB ^c	N/A ^d	N/A ^d
Category 2: Residences and buildings in which people normally sleep.	72 VdB	80 VdB	35 VdB	43 VdB
Category 3: Institutional land uses with primarily daytime uses.	75 VdB	83 VdB	40 VdB	48 VdB
<p>Source: FTA. Transit Noise and Vibration Impact Assessment Manual (September 2018).</p> <p>^a Frequent events are defined as more than 70 events per day.</p> <p>^b Infrequent events are defined as fewer than 70 events per day.</p> <p>^c This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.</p> <p>^d Vibration-sensitive equipment is not sensitive to ground borne noise.</p> <p>dB = decibels dBA = A-weighted decibels HVAC = heating, ventilation, and air conditioning</p> <p>inch/sec = inch(es) per second re = relative VdB = vibration velocity decibels</p>				

This is accounted for in the criteria by distinguishing between projects with frequent and infrequent events, in which the term “frequent events” is defined as more than 70 events per day.

State

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the State Noise Insulation Standard, it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in

⁹ (Federal Transit Administration n.d.)

the Building Standards Administrative Code and the CBC. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor-ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA Community Noise Equivalent Level (CNEL) in any habitable room with all doors and windows closed. CNEL is derived from L_{dn} , but gives additional weight to noise during sensitive hours. mentioned above, In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

In addition, Chapter 5, Section 5.507 of the California Green Building Standards Code includes nonresidential mandatory measures, which require that buildings exposed to a noise level of 65 dB L_{eq} -1-hour during any hour of operation shall have building, addition, or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite Sound Transmission Class (STC) rating of at least 45 (or Outdoor/Indoor Transmission Class [OITC] 35) with exterior windows of a minimum STC of 40 (or OITC 30). The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses.

Local

City of Fresno General Plan. The General Plan contains the following objectives and policies related to noise. In addition, the Noise Element sets noise standards for transportation and stationary noise sources as shown in [Table 4-28](#) and [Table 4-29](#) below.

Table 4-28: Transportation (Non-Aircraft) Noise Sources

Noise-Sensitive Land Use ^a	Outdoor Activity Areas ^b	Interior Spaces	
	L_{dn} /CNEL, dB	L_{dn} /CNEL, dB	L_{eq} dB ^b
Residential	65	45	-
Transient Lodging	65	45	-
Hospitals, Nursing Homes	65	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	65	-	45
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45

Source: City of Fresno General Plan (2014).
^a Where the location of outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.
^b As determined for a typical worst-case hour during periods of use

Table 4-29: Stationary Noise Sources

	Daytime (7:00 a.m. – 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly Equivalent Sound Level (L_{eq}), dBA	50	45
Maximum Sound Level (L_{max}), dBA	70	60

Source: City of Fresno General Plan (2014).
^a The Planning and Development Director, on a case-by-case basis, may designate land uses other than those shown in this table to be noise-sensitive, and may require appropriate noise mitigation measures.
^b As determined at outdoor activity areas. Where the location of outdoor activity areas is unknown or not applicable, the noise exposure standard shall be applied at the property line of the receiving land use. When ambient noise levels exceed or equal the levels in this table, mitigation shall only be required to limit noise to the ambient plus five dB.
 L_{eq} = Average noise level sampled over a given period of time

- **Objective NS-1.** Protect the citizens of the City from the harmful and annoying effects of exposure to excessive noise.
- **Policy NS-1-a: Desirable and Generally Acceptable Exterior Noise Environment.** Establish 65 dBA L_{dn} or CNEL as the standard for the desirable maximum average exterior noise levels for defined usable exterior areas of residential and noise-sensitive uses for noise, but designate 60 dBA L_{dn} or CNEL (measured at the property line) for noise generated by stationary sources impinging upon residential and noise-sensitive uses. Maintain 65 dBA L_{dn} or CNEL as the maximum average exterior noise levels for non-sensitive commercial land uses, and maintain 70 dBA L_{dn} or CNEL as maximum average exterior noise level for industrial land uses, both to be measured at the property line of parcels where noise is generated which may impinge on neighboring properties.
- **Policy NS-1-b: Conditionally Acceptable Exterior Noise Exposure Range.** Establish the conditionally acceptable noise exposure level range for residential and other noise sensitive uses to be 65 dB L_{dn} or require appropriate noise reducing mitigation measures as determined by a site specific acoustical analysis to comply with the desirable and conditionally acceptable exterior noise level and the required interior noise level standards set in Table 9-2.
- **Policy NS-1-c: Generally Unacceptable Exterior Noise Exposure Range.** Establish the exterior noise exposure of greater than 65 dB L_{dn} or CNEL to be generally unacceptable for residential and other noise sensitive uses for noise generated by sources in Policy NS-1-a, and study alternative less noise-sensitive uses for these areas if otherwise appropriate. Require appropriate noise reducing mitigation measures as determined by a site specific acoustical analysis to comply with the generally desirable or generally acceptable exterior noise level and the required 45 dB interior noise level standards set in Table 9-2 as conditions of permit approval.
- **Policy NS-1-f: Performance Standards.** Implement performance standards for noise reduction for new residential and noise sensitive uses exposed to exterior community noise levels from transportation sources above 65 dB L_{dn} or CNEL, as shown on Figure NS-3: Future Noise Contours, or as identified by a project-specific acoustical analysis based on the target acceptable noise levels set in Tables 9-2 and Policies NS-1-a through NS-1-c.
- **Policy NS-1-g: Noise mitigation measures** which help achieve the noise level targets of this plan include, but are not limited to, the following:
 - Façades with substantial weight and insulation;
 - Installation of sound-rated windows for primary sleeping and activity areas;
 - Installation of sound-rated doors for all exterior entries at primary sleeping and activity areas;
 - Greater building setbacks and exterior barriers;
 - Acoustic baffling of vents for chimneys, attic and gable ends;
 - Installation of mechanical ventilation systems that provide fresh air under closed window conditions.
- **Policy NS-1-k: Proposal Review.** Review all new public and private development proposals that may potentially be affected by or cause a significant increase in noise levels, per Policy NS-1-i, to determine conformance with the policies of this Noise Element. Require developers to reduce the noise impacts of new development on adjacent properties through appropriate means.
- **Policy NS-1-m: Transportation Related Noise Impacts.** For projects subject to City approval, require that the project sponsor mitigate noise created by new transportation and transportation-related stationary noise sources, including roadway improvement projects, so that resulting noise levels do not exceed the City's adopted standards for noise-sensitive land uses.
- **Policy NS-1-n: Best Available Technology.** Require new noise sources to use best available control technology to minimize noise emissions.

- **Policy NS-1-o: Sound Wall Guidelines.** Acoustical studies and noise mitigation measures for projects shall specify the heights, materials, and design for sound walls and other noise barriers. Aesthetic considerations shall also be addressed in these studies and mitigation measures such as variable noise barrier heights, a combination of a landscaped berm with wall, and reduced barrier height in combination with increased distance or elevation differences between noise source and noise receptor, with a maximum allowable height of 15 feet. The City will develop guidelines for aesthetic design measures of sound walls, and may commission area wide noise mitigation studies that can serve as templates for acoustical treatment that can be applied to similar situations in the urban area.

City of Fresno Municipal Code: The following FMC regulations further regulate noise within City limits:

- **SEC. 10-102. Definitions. (b) Ambient Noise.** “Ambient noise” is the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purpose of this ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of fifteen minutes, without inclusion of the offending noise, at the location and time of day at which a comparison with the offending noise is to be made. Where the ambient noise level is less than that designated in this section, however, the noise level specified herein shall be deemed to be the ambient noise level for that location.

Table 4-30: Ambient Noise Levels

District	Time	Sound Level Decibels
Residential	10:00 p.m. to 7:00 a.m.	50
Residential	7:00 p.m. to 10:00 p.m.	55
Residential	7:00 a.m. to 7:00 p.m.	60

- **SEC. 10-105. Excessive Noise Prohibited.** No person shall make, cause, or suffer or permit to be made or caused upon any premises or upon any public street, alley, or place within the city, any sound or noise which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing or working in the area, unless such noise or sound is specifically authorized by or in accordance with this article. The provisions of this section shall apply to, but shall be limited to, the control, use, and operation of the following noise sources:
 - Radios, musical instruments, phonographs, television sets, or other machines or devices used for the amplification, production, or reproduction of sound or the human voice.
 - Animals or fowl creating, generating, or emitting any cry or behavioral sound.
 - Machinery or equipment, such as fans, pumps, air conditioning units, engines, turbines, compressors, generators, motors or similar devices, equipment, or apparatus.
 - Construction equipment or work, including the operation, use or employment of pile drivers, hammers, saws, drills, derricks, hoists, or similar construction equipment or tools.

4.13.3 Impact Analysis

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact. Construction noise generated from the Project would typically occur intermittently and vary depending upon the nature or phase (e.g., demolition, land clearing, grading,

excavation, erection) of construction. Noise produced by construction equipment such as earthmovers, material handlers, and portable generators can reach high levels. Generally, the grading phase of construction involves the most equipment and generates the highest noise levels, although noise ranges are usually similar across all construction phases. Typical construction equipment noise levels are provided in **Table 4-31**. As shown, noise levels generated by individual pieces of construction equipment generally range from approximately 77 dBA to 90 dBA L_{max} at 50 feet. Typical operating cycles vary by equipment type and specific activity, although cycles generally involve two minutes of full power, followed by three to four minutes at lower settings. Depending on the equipment required and duration of use, average-hourly noise levels associated with construction activity typically ranges from roughly 65 to 90 dBA L_{eq} at 50 feet. The highest noise levels are generally associated with grading and excavation phases.

Table 4-31: Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA L_{max}) 50 feet from Source
Backhoe/Front-End Loader	80
Compactor	80
Concrete Mixer Truck	85
Dozer	85
Grader	85
Excavator/ Scraper	85
Air Compressor	80
Gradall (Forklift)	85
Generator	82
Truck (Dump/Flat Bed	84
Paver	85
Pneumatic Tool	85

Source: Roadway Construction Noise Model (Federal Highway Administration 2006)

Implementation of the Project would include construction of a 28-unit development, as well as ancillary infrastructural improvements such as water delivery and wastewater conveyance pipelines.

FMC Section 10-109 exempts from the City's noise regulations the construction, repair, or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the city or other governmental agency, or to site preparation and grading, provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.

Thus, although development activities associated with buildout of the Project could potentially result in a temporary or periodic increase in ambient noise levels in the project vicinity, construction activity would be exempt from City of Fresno noise regulations, as long as such activity is conducted pursuant to an applicable construction permit and occurs between 7:00 a.m. and 10:00 p.m., excluding Sunday. Therefore, short-term construction impacts associated with the exposure of persons to or the generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies would be less than significant.

Operation of the Project would include vehicles traversing the site to parking areas, solid waste vehicles service, and human voices. Noise levels generated by these activities are expected to be minimal and consistent with existing surrounding development. Concrete masonry walls, including both existing walls and others to be installed by the Project, would further reduce Project-related noise impacts. Therefore, operational impacts associated with the exposure of persons to or the generation of noise levels in excess

of standards established in the local general plan or noise ordinance or applicable standards of other agencies would be less than significant.

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

Less than Significant Impact with Mitigation Incorporated. During grading and site preparation there is potential for construction equipment to generate ground borne vibration or ground borne noise levels that could affect property adjacent to the Project site. There are various single- and multifamily dwellings located adjacent to the proposed development, some of which have swimming pool structures in their respective backyards. In addition, to the west is a hospice facility. Nearby residents could potentially be impacted by ground borne noise or vibration during construction activities. However, construction activities will be short-term, temporary in nature, and limited to daytime hours. Furthermore, the Project site has frontage on E. Alluvial Avenue, an existing source of vehicular noise. The GP PEIR found that construction-related ground borne noise could cause an impact when construction occurs within 25 feet of existing structures. **H**abitat of the residential units would not result in the production of long-term ground borne noise or vibration levels, and the inhabitants of the proposed development would not be exposed to excessive ground borne vibration or ground borne noise levels since there are no known stationary sources in the vicinity. With implementation of **PEIR NOI-2**, as presented in the GP PEIR, which would prohibit the use of heavy construction within 25 feet of existing structures, impacts would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project is located more than four miles west of the Fresno Yosemite International Airport and is located outside of all of the identified airport protection zones within the Fresno County ALUCP. There would be no impact.

4.13.4 Mitigation

PEIR NOI-2 The use of heavy construction equipment within 25 feet of existing structures shall be prohibited.

4.14 POPULATION AND HOUSING

Table 4-32: Population and Housing Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.14.1 Baseline Conditions

The existing site contains no residential dwelling units and is vacant. Single-family residences lie to the north and west, with an apartment complex to the east.

4.14.2 Applicable Regulations

There are no applicable regulations, plans, programs, or guidelines associated with mineral resources that are applicable to the Project.

4.14.3 Impact Analysis

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

Less than Significant Impact. The 3.10-acre property is currently planned for a maximum of 3.5 dwelling units per acre. The Housing Element estimates household size in the City of Fresno at 3.07 persons, providing a total planned population of approximately 33 persons. Through a change to the planned land use and zoning, the Project would develop 14 duplexes for a total of 28 residential units, which would accommodate a population of approximately 86 persons. The 2035 Fresno General Plan estimated a population buildout of 970,000 persons in 2056. However, a 2019 Fresno COG growth projection analysis, revised in 2021 and using a 0.7% annual growth rate, estimates the City's population at approximately 728,200 persons by 2050.¹⁰ Further extrapolation would likely bring this population to 759,325 in 2056. The amount of growth proposed by the Project, which may come from within or without the city limits, is less than 0.001 percent. Such growth is not considered substantial in Fresno or the region, and is consistent with the assumed growth rates in the General Plan. The Project would not include upsizing of offsite infrastructure or roadways. The installation of new infrastructure would be limited to what is

¹⁰ (Applied Development Economics 2021)

necessary to connect the Project to the existing offsite utilities. The Project would not induce substantial population growth in an area, either directly or indirectly. Impacts would therefore be less than significant.

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

No Impact. The Project proposes a residential development on vacant land. The Project would not displace substantial numbers of existing people or housing, and thus there would be no impact

4.15 PUBLIC SERVICES

Table 4-33: Public Services

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.15.1 Baseline Conditions

The Project site is located north of E. Alluvial Avenue and west of N. Willow Avenue. It consists of 3.1 acres of vacant property. The Project site is served by Fresno City Fire Department Station 13, Clovis Unified School District, and the City of Fresno Northeast Policing District.

4.15.2 Applicable Regulations

Fire Department. The City of Fresno Fire Department (Fire Department) provides fire suppression, fire prevention, hazardous material mitigation, rescue, and emergency medical services to an area of approximately 115 square miles with service to the City of Fresno, the Fig Garden Fire District, and Fresno Yosemite International Airport. Contract services continued to the residents of the North Central Fire Protection District in the northwest area of the City.

City of Fresno General Plan. Public Utilities and Services Element

Objective PU-2. Ensure that the Fire Department's staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost effective manner.

- **PU-2-a: Unify Fire Protection.** Pursue long-range transfer of fire protection service agreements with adjacent fire districts that, in concert with existing automatic aid agreements, will lead to the eventual unification of fire protection services in the greater Fresno area.
- **PU-2-b: Maintain Ability.** Strive to continually maintain the Fire Department's ability to provide staffing and equipment resources to effectively prevent and mitigate emergencies in existing and

new high-rise buildings and in other high-density residential and commercial development throughout the city.

- **PU-2-c: Rescue Standards.** Develop appropriate standards, as necessary, for rescue operations, including, but not limited to, confined space, high angle, swift water rescues, and the unique challenges of a high speed train corridor.
- **PU-2-d: Station Siting.** Use the General Plan, community plans, Specific Plans, neighborhood plans, and Concept Plans, the City's Geographic Information Systems (GIS) database, and a fire station location program to achieve optimum siting of future fire stations.
- **PU-2-e: Service Standards.** Strive to achieve a community wide risk management plan that include the following service level objectives 90 percent of the time:
 - **First Unit on Scene** – First fire unit arriving with minimum of three firefighters within 5 minutes and 20 seconds from the time the unit was alerted to the emergency incident.
 - **Effective Response Force** – Provide sufficient number of firefighters on the scene of an emergency within 9 minutes and 20 seconds from the time of unit alert to arrival. The effective response force is measured as 15 firefighters for low risk fire incidents and 21 firefighters for high risk fire incidents and is the number of personnel necessary to complete specific tasks required to contain and control fire minimizing loss of life and property.
- **Objective PU-3:** Enhance the level of fire protection to meet the increasing demand for services from an increasing population.
- **Policy PU-3-a:** Fire Prevention Inspections. Develop strategies to enable the performance of annual fire and life safety inspection of all industrial, commercial, institutional, and multi-family residential buildings, in accordance with nationally recognized standards for the level of service necessary for a large Metropolitan Area, including a self-certification program.
- **Policy PU-3-b:** Reduction Strategies. Develop community risk reduction strategies that target high service demand areas, vulnerable populations (e.g. young children, older adults, non-English speaking residents, persons with disabilities, etc.), and high life hazard occupancies.
- **Policy PU-3-c:** Public Education Strategies. Develop strategies to re-establish and enhance routine public education outreach to all sectors of the community.
- **Policy PU-3-d:** Review Development Applications. Continue Fire Department review of development applications, provide comments and recommend conditions of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.
- **Policy PU-3-e:** Building Codes. Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systematically reduce the level of risk to life and property from fire, commensurate with the City's fire suppression capabilities.
- **Policy PU-3-f:** Adequate Infrastructure. Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.
- **Policy PU-3-g:** Cost Recovery. Continue to evaluate appropriate codes, policies, and methods to generate fees or other sources of revenue to offset the ongoing personnel and maintenance costs of providing fire prevention and response services.

Police Department. The City of Fresno Police Department (Police Department) provides a full range of police services, including uniformed patrol response to calls for service, crime prevention, and tactical crime enforcement (such as gang/violent crime suppression), as well as traffic enforcement/accident prevention. Other services and special units include the Explosive Ordinance Disposal Unit (EOD), Internal Affairs, the K9 Unit, horse-mounted Mounted Patrol, Skywatch, Specialized Weapons and Tactics (SWAT), and the

Records Bureau. The Department consists of four divisions: The Support Division, the Investigations Division, the Patrol Division, and the Administration Division.

Schools: Clovis Unified School District (CUSD) serves the northern, northeastern, and eastern areas of Fresno as well as much of the City of Clovis and nearby rural areas to the north and east. CUSD currently serves 42,795 students at 53 schools¹¹ and has experienced significant growth necessitating the expansion of facilities over the past decade.

Senate Bill 50: SB 50 provided a comprehensive school facilities financing and reform program by, among other methods, authorizing a \$9.2 billion school facilities bond issue, school construction cost containment provisions, and an eight-year suspension of the Mira, Hart, and Murrieta court cases. The provisions of SB 50 prohibit local agencies from denying either legislative or adjudicative land use approvals on the basis that school facilities are inadequate and reinstate the school facility fee cap for legislative actions (e.g., general plan amendments, specific plan adoption, zoning plan amendments) as was allowed under the Mira, Hart, and Murrieta court cases. According to GC Section 65996, the development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.” These provisions are in effect and will remain in place as long as subsequent state bonds are approved and available.

4.15.3 Impact Analysis

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

i. Fire Protection:

Less than Significant Impact. The Project is located within the boundaries of the Fresno City Fire Department Station 13 Service Area. Fire Station 13 is located at 815 E. Nees Avenue, 2.6 miles northwest of the project. The Fresno Fire Department reviewed the Project and determined that it can adequately serve it. Additional Fire service requirements for development of the Project will include installation of public fire hydrants and maintaining one means of emergency access during all phases of construction. Payment of impact fees for fire facilities is a requirement prior to issuance of building permits. Therefore, the project would have a less than significant impact.

ii. Police Protection:

Less than Significant Impact. The Fresno Police Department has five policing districts. The Project is serviced by the Northeast Fresno Police Department located at 1450 E. Teague Avenue, 2.4 miles northwest of the project. No new police protection facilities would be required to serve the area. Payment of impact fees for police facilities is a requirement prior to issuance of building permits. Impacts would be less than significant.

iii. Schools:

¹¹ (Clovis Unified School District n.d.)

Less than Significant Impact. The Project is served by the Clovis Unified School District. Based on the location of the Project and students' grade level, students would attend the following schools:

Table 4-34. Nearby Public Schools

School	Grades	Address	Distance from Project
Mountain View Elementary School	K-6	2002 E. Alluvial Ave.	0.67 mile west
Granite Ridge Intermediate	7-8	2770 E. International Avenue	2.9 miles north
Clovis North High School	9-12	2770 E. International Avenue	2.9 miles north

Correspondence from CUSD dated May 31, 2022¹² indicates that all three schools have sufficient capacity to serve the project. Pursuant to SB 50, the Project would be required to pay school fees to accommodate the impact of project-generated students, reducing impacts to a less than significant level.

iv. Parks:

Less than Significant Impact. The Project site is served by the City of Fresno Parks, After School, Recreation and Community Services (PARCS) Department. The closest park to the project is Bob Belcher/Dog Park located at 2158 E. Alluvial Avenue, 0.61 miles west of the Project.¹³ Using the City of Fresno's average household size of 3.07 and the proposed 28 units, the Project has the potential to generate 86 persons to the Project area.¹⁴ These 86 persons could utilize the nearby parks. Although the nearby parks have the potential to be used by the new people generated from the Project, the additional people are not expected to significantly impact the parks resulting in the need for new facilities. The Project would be required to pay development impact fees towards the development of the Project's fair share of park space. Impacts would be less than significant

v. Other public facilities:

Less than Significant Impact. The Project build-out will result in an additional 28 multi-family residences and a corresponding projected population increase of 86 residents. The Project population growth represents a 0.001 percent increase in the 2020 population. Payment of applicable development-related impact fees would ensure impacts would be less than significant.

¹² (Central Unified School District 2022).

¹³ (City of Fresno n.d.)

¹⁴ (United States Census Bureau 2021)

4.16 RECREATION

Table 4-35: Recreation Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.16.1 Baseline Conditions

The Project site is served by the City of Fresno PARCS. The City maintains approximately 1,617 acres of open space and nearly 230,000 square feet of building space dedicated to recreational/educational purposes distributed among 104 sites. Other facilities include nine community pools, four splash parks, 518 picnic tables, 153 barbeque grills, three amphitheatres, 54 baseball/softball fields, 53 football/soccer fields, 40 basketball courts, 11 volleyball courts, 40 tennis courts, 7 skate parks, and 5 dog parks. The park system also provides and maintains 115 acres of paths and trails for pedestrians and bicyclists.¹⁵

There are multiple parks within a two-mile radius. These parks include Lennar Park, Maple Alluvial Park, Belcher Park, Selma Layne Park, and East Rotary Park. The closest park to the Project is Bob Belcher Park located 0.61 miles to the west.

4.16.2 Applicable Regulations

City of Fresno General Plan. The General Plan contains the following objectives and policies related to recreation:

- **Policy POSS-2-C. Review of Development Applications.** Coordinate review of all development applications (i.e., site plans, conditional use permits, and subdivision maps) in order to implement the parks and open space standards of this Plan.

4.16.3 Impact Analysis

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?

¹⁵ (City of Fresno n.d.)

Less than Significant Impact. The Project would generate more residents than what is currently planned. The 2035 General Plan desires a regional parks acreage of 2.0 acres per 1,000 population, and pocket, neighborhood, and community park acreage of 3.0 acres per 1,000, for a total of 5.0 acres per 1,000 population. The General Plan segments sectors of the City into 12 different areas, with the Project site located in “Established Neighborhoods North of Shaw”, an area east of State Route 99 and to the west side of N. Willow Avenue. The Parks Master Plan identifies this area as having a 2035 population of 167,777, with a total of 683 acres of regional, open space, and special use parks (“large parks”). With a large parks goal of 2.0 acres per 1,000 people, a total of 335 acres of open space would be needed for the Established Neighborhoods North of Shaw Avenue region, thus there is a surplus amount of planned park space of approximately 348 acres. The Project proposes to construct a 28-unit development, which would generate 86 persons. Despite the increase in demand for parks, existing regional planned park space is sufficient and the Project would have a less than significant impact.

Table 4-36. Planned Park Demand, Existing and Proposed

	Planned Population	Planned Park Acres		Parks Ratio	
		Large	Small	Large	Small
Existing	167,777	683	220	4.07	1.31
Existing + Project	167,832	683	220	4.07	1.31
General Plan Goal				2.00	3.00
Goal Met?				Yes	No

The Established Neighborhoods North of Shaw sector, in which the Project is located, currently does not meet the General Plan goal of pocket, neighborhood, and community parks (“small parks”) of 3.0 acres per 1,000. The Parks Master Plan states this area has planned park space at a ratio of 1.31 per 1,000 residents. Implementation of the Project would increase demand on local parks by 0.11 acres, or approximately 4,800 square feet. The Project proposes to construct a common area open space of 5,700 square feet, or 0.13 acres, therefore the Project’s additional demand on parks can be adequately addressed through the Project’s on-site common open space. Furthermore, the Project would be required to pay its fair share towards park space through the payment of Quimby Act fees. Impacts to small parks would be 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 Project currently consists of vacant land within an urbanized setting. The Project does not include recreational facilities or require the construction or expansion of recreational facilities; therefore, there would be no impact.

4.17 TRANSPORTATION

Table 4-37: Transportation Impacts

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

4.17.1 Baseline Conditions

The Project site consists of a vacant lot on the north side of E. Alluvial Avenue, a collector street with a right-of-way of 98 feet.

4.17.2 Applicable Regulations

City of Fresno Active Transportation Plan. The City's Active Transportation Plan (ATP), adopted in March 2017, provides a comprehensive guide outlining the vision for active transportation in Fresno. The ATP supersedes the Bicycle, Pedestrian, and Trails Master Plan that was adopted in 2010. The ATP envisions a complete, safe, and comfortable network of trails, sidewalks, and bikeways that serves all residents of Fresno. This plan lays out specific goals to improve bicycle and pedestrian access and connectivity in Fresno. These goals include the following:

- Equitably improve the safety and perceived safety of walking and bicycling in Fresno;
- Increase walking and bicycling trips in Fresno by creating user-friendly facilities;
- Improve the geographical equity of access to walking and bicycling facilities in Fresno; and,
- Fill key gaps in Fresno's walking and bicycling networks.

City of Fresno Traffic Impact Study Report Guidelines. The City has established general procedures and requirements for the preparation of traffic impact studies associated with development within the City of Fresno. The guidelines include, but are not limited to, discussion of study areas of traffic impact studies, the use of level of service (LOS) as a metric for determining impacts, traffic analysis scenarios, traffic counts, and trip generation.

City of Fresno CEQA Guidelines for Vehicle Miles Traveled Thresholds. In June 2020, the City adopted VMT thresholds and guidelines to address the shift from delay-based LOS CEQA traffic analyses to VMT CEQA traffic analyses, as required by SB 743. This document serves as a detailed guideline for

preparing VMT analyses consistent with SB 743 requirements for development projects, transportation projects, and plans. Project applicants will be required to follow the guidance provided in the City's document for preparation of CEQA VMT analysis. The document includes the following:

- Definition of region for VMT analysis;
- Standardized screening methods for VMT threshold compliance data;
- Recommendations for appropriate VMT significance thresholds for development projects, transportation projects, and plans; and
- Feasible mitigation strategies applicable for development projects, transportation projects, and plans

4.17.3 Impact Analysis

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

Less than Significant Impact. The Project proposes to construct 28 single-story multifamily dwelling units, which would generate 12 and 15 peak AM and peak PM trips, respectively, to the circulation network. The Department of Public Works determined that the Project impacts to the transportation network would screen out of a Traffic Impact Study. The Project would be required to construct its fair share of transit, roadway, bicycle, and pedestrian facilities. Given that the Project would pay its fair share towards transportation impact fees, including to major streets and traffic signals, the Project would have a less than significant impact to plans, ordinances, and policies addressing the circulation system.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?

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

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities is no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that "[a] lead agency has discretion 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 revision 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."

On June 25, 2020, the City of Fresno adopted CEQA Guidelines for VMT Thresholds pursuant to Senate Bill 743 to be effective of July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018

Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) published by the Governor's Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds adopted a screening standard and criteria that can be used to screen out qualified projects that meet the adopted criteria from needing to prepare a detailed VMT analysis.

The City of Fresno VMT Thresholds Section 3.1 regarding Development Projects states that if a project includes a General Plan Amendment or a Rezone, none of the screening criteria may apply, and that the City must evaluate such projects on a case-by-case basis. In this case, the Project includes both a General Plan Amendment and a Rezone. Accordingly, a quantitative VMT analysis is required.

The thresholds of significance were developed using the County of Fresno as the applicable region, and the required reduction of VMT (as adopted in the Fresno VMT Thresholds) corresponds to Fresno County's contribution to the statewide GHG emission reduction target. In order to reach the statewide GHG reduction target of 15%, Fresno County must reduce its GHG emissions by 13%. The method of reducing GHG by 13% is to reduce VMT by 13% as well.

The City's adopted thresholds for development projects correspond to the regional thresholds set by the Fresno COG. For residential projects, the adopted threshold of significance is a 13% reduction, which means that projects that do not result in at least a 13% reduction from the existing regional VMT per capita would have a significant environmental impact. Projects that reduce VMT by 13% or more are considered to have a less than significant impact.

Quantitative assessments of the VMT generated by residential projects having 500 or fewer dwelling units, including the proposed Project, are determined using the COG VMT Calculator Tool (see sections 4.3.1 and 4.3.2 on page 26 of the Fresno CEQA Guidelines for Vehicle Miles Traveled, June 25, 2020).

The Fresno COG VMT Calculator Tool indicated the Transportation Analysis Zone in which this Project is located would generate 11.1 VMT per capita. As the City's established VMT threshold is 14.01 VMT per capita, the Project's impact to vehicle miles traveled is less than the 13% minimum threshold, resulting in a less than significant impact.

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)?

Less than Significant Impact. The Project proposes an internal circulation system consistent with the standards of the City of Fresno Public Works Department. The Project proposes three internal segments of 27-foot-wide circulation corridor oriented at right angles to one another and providing access to all units within the development. It would therefore not substantially increase hazards due to a geometric design feature or introduce incompatible uses. Impacts would be less than significant.

d) Would the project result in inadequate emergency access?

Less than Significant Impact. The Project proposes one additional drive approach along East Alluvial Avenue. No drive approaches would be removed. The Project site would comply with all access requirements of the Fresno Fire Department. The Project is not located near a fire station facility where additional congestion could obstruct fire apparatus from leaving its station. Therefore, the Project would have a less than significant impact.

4.18 TRIBAL CULTURAL RESOURCES

Table 4-38: Tribal Cultural Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.18.1 Baseline Conditions

PRC Section 21080.3.1, et seq. (codification of Assembly Bill 52) requires that a lead agency, within 14 days of determining that it will undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

GC Section 65352.3, et seq. (codification of Senate Bill 18) requires that prior to the adoption or any amendment of a general plan, a local government must notify the appropriate tribes of the opportunity to conduct consultation for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that may be affected by the proposed plan adoption or

amendment. Tribes have 90 days from the date on which they are notified unless a shorter timeframe has been agreed to by the tribe.

Pursuant to PRC Section 21080.3. and GC Section 65352.3, the City of Fresno has received letters from the Dumna Wo Wah and Table Mountain Rancheria of California Tribal Governments officially requesting notification. Formal notification was sent to these tribes on June 22, 2022. No responses have been received.

Southern San Joaquin Valley Information Center of the California Historical Resources Information System

A records search from the SSJVIC CHRIS, located at California State University, Bakersfield was conducted in March 2022. The SSJVIC records search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest, the CHL, the CRHR, the NRHP, and the California State Built Environment Resources Directory listings were reviewed for the above referenced APE and an additional ¼-mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released. ([Appendix C: Cultural Resources](#)).

Additional sources included the OHP Historic Properties Directory, Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources.

Native American Heritage Commission – Sacred Lands File Search

The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act, among many other powers and duties. The NAHC was contacted in May 2022. NAHC was provided with a brief description of the Project and a map showing its location and a request to perform a search of the Sacred Lands File to determine if any Native American resources have been recorded in the immediate APE.

4.18.2 Applicable Regulations

Federal

National Historic Preservation Act. See [Section 4.5.2](#).

State

California Register of Historical Resources. See [Section 4.5.2](#).

California Environmental Quality Act. See [Section 4.5.2](#).

State Health and Safety Code. See [Section 4.5.2](#).

California Government Code 65352.3-5: Local Government-Tribal Consultation. See [Section 4.5.2](#).

Local

City of Fresno General Plan. The General Plan contains the following objective and policies related to tribal cultural resources:

- **Policy HCR-2-d: Native American Sites.** Work with local Native American tribes to protect recorded and unrecorded cultural and sacred sites, as required by State law, and educate developers and the community-at-large about the connections between Native American history and the environmental features that characterize the local landscape.

City of Fresno Municipal Code

Historic Preservation Ordinance. See [Section 4.5.2](#).

4.18.3 Impact Assessment

- 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 the 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact with Mitigation Incorporated. A Sacred Lands Search was conducted by NAHC and the results were negative for the presence on of known cultural resources. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area that are unrecorded and/or unknown.

Pursuant to AB 52 and SB 18, the tribes have 30 days to request consultation with the lead agency and 90 days to comment, respectively, regarding potential effects to tribal resources. Although the Cultural Resource records searches for the Project did not find any evidence of resources deemed of cultural value to a California Native American tribe, pursuant to SB 18, Native American tribes traditionally and culturally affiliated with the project area were invited to consult regarding the project based on a list of contacts provided by the NAHC on June 22, 2022. Each tribe's 30-day window to request consultation under AB 52 will vary based upon the date the tribe received notification. The 90-day time period for tribes to comment pursuant to SB 18 is based on the date notice was mailed and will expire on September 23, 2022.

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 according to SSJVIC CHRIS Records Search Results dated March 7, 2022. ([Appendix C](#))

Less than significant impacts, with mitigation incorporated, to tribal resources are expected. **Mitigation Measures CUL-1** and **PEIR CUL-3**, described above in **Section 4.5 Cultural Resources**, are recommended in the event cultural materials or human remains are unearthed during excavation or construction.

4.18.4 Mitigation

TCR-1 See **CUL-1** above.

TCR-2 See **PEIR CUL-3** above.

4.19 UTILITIES AND SERVICE SYSTEMS

Table 4-39: Utilities and Service Systems Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.19.1 Baseline Conditions

The Project site is located on the north side of E. Alluvial Avenue, east of N. Willow Avenue. Utilities are located in the Project's Alluvial Avenue frontage.

Water Supply

The City relies on groundwater from the North Kings Subbasin; surface water from Central Valley Project, through a contract with the United States Bureau of Reclamation; Kings River water, through a contract with Fresno Irrigation District; and recycled water. The City has three surface water treatment facilities that provide approximately half of all potable water demands in the service area.

The City lies within the Kings Sub-basin, which is part of the larger San Joaquin Valley Groundwater Basin, and extracts approximately 40% of water to meet its demands from this underground aquifer. Historically, the groundwater levels in the Fresno area have declined from less than 0.5 feet per year in the southwest portion of the downtown area, to a rate of 1.5 feet per year for northern and southern areas of town, to a maximum of three (3) feet per year in the northeastern area. With the reduced pumping due to surface water usage, groundwater levels increased in certain areas of the City since 2016.

Wastewater Collection and Treatment

The City of Fresno owns and maintains the majority of the wastewater collection systems that convey wastewater to the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF). Wastewater would be collected via City maintained sewer lines and transmitted to facilities operated by the City's Department of Public Utilities. The Project will be served by the RWRF, which has a permitted capacity of 68 million gallons per day (mgd) average monthly flow.¹⁶

Landfills

Solid waste generated by the Project would be disposed at the American Avenue Sanitary Landfill, located in Kerman, CA. The landfill has a maximum permitted capacity of 32,700,000 cubic yards, with last reported remaining capacity of 29,358,535 cubic yards. The landfill has an estimated closure date for August 2031.¹⁷

4.19.2 Applicable Regulations

Federal

Clean Water Act

The primary goals of the Federal Clean Water Act (CWA), 33 USC Sections 1251, et seq. are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The CWA forms the basic national framework for the management of water quality and the control of pollutant discharges. The CWA sets forth a number of objectives in order to achieve the above-mentioned goals. The CWA objectives include regulating pollutant and toxic pollutant discharges; providing for water quality which protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources pollution. The NPDES permit program under Section 402(p) of the CWA controls water pollution by regulating stormwater discharges into the waters of the United States. California has an approved state NPDES program. The EPA has delegated authority for water permitting to the SWRCB, which has nine regional boards.

Safe Drinking Water Act

The SDWA establishes standards for contaminants in drinking water supplies. Contaminants regulated by the SDWA include metals, nitrates, asbestos, total dissolved solids, and microbes.

National Flood Insurance Program

As described by FEMA, the National Flood Insurance Program aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of flood insurance.

National Pollution Discharge Elimination System (NPDES) Permits

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable

¹⁶ (City of Fresno 2022)

¹⁷ (CalRecycle n.d.)

concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant. In California, the Federal requirements are administered by the SWRCB, and individual NPDES permits are issued by the RWQCBs.

Disposal of Biosolids

Title 40 of the Code of Federal Regulations (CFR) Part 503, Title 23 California Code of Regulations, and standards established by the RWQCB regulate the disposal of biosolids.

Title 40 of the Code of Federal Regulations (CFR)

Title 40 of the Code of Federal Regulations (CFR), Part 258 (RCRA, Subtitle D) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the Federal landfill criteria. The Federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills.

State

Safe Drinking Water Act (1976)

California enacted its own Safe Drinking Water Act in 1976. The California Department of Public Health (CDPH) has been granted primary enforcement responsibility for the SDWA. Title 22 of the California Code of Regulations establishes CDPH authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

Porter-Cologne Water Quality Control Act (California Water Code)

The State of California is authorized to administer federal or State laws regulating water pollution within the State. The Porter-Cologne Water Quality Control Act (Water Code Sections 13000, et seq.) includes provisions to address requirements of the CWA. These provisions include NPDES permitting, dredge and fill programs, and civil and administrative penalties. The Porter-Cologne Act is broad in scope and addresses issues relating to the conservation, control, and utilization of the water resources of the State. Additionally, the Porter-Cologne Act states that the quality of all the waters of the State (including groundwater and surface water) must be protected for the use and enjoyment by the people of the State.

Recycled Water Regulations

Within California, recycled water is regulated by the U.S. Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCB), and CDPH. The SWRCB has adopted Resolution No. 77-1, "Policy with Respect to Water Reclamation in California." This policy states that the SWRCB and RWQCBs will encourage and consider or recommend for funding water reclamation projects that do not impair water rights or beneficial in-stream uses. The CDPH establishes the recycled water uses allowed in California and designates the level of treatment (i.e., un-disinfected secondary, disinfected secondary, or disinfected tertiary) required for each of these designated uses (California Code of Regulation Title 22, Division 4).

The RWQCBs implement the SWRCB Guidelines for Regulation of Water Reclamation and issue waste discharge permits that serve to regulate the quality of recycled water based on stringent water quality requirements. The CDPH develops policies protecting human health and comments and advises on RWQCB permits.

Title 22 of the California Code of Regulations

Title 22 regulates, among other things, production and use of reclaimed water in California by establishing three categories of reclaimed water: primary effluent, which typically includes grit removal and initial sedimentation or settling tanks; adequately disinfected, oxidized effluent (secondary effluent) which typically involves aeration and additional settling basins; and adequately disinfected, oxidized, coagulated, clarified, filtered effluent (tertiary effluent) which typically involves filtration and chlorination. In addition to defining reclaimed water uses, Title 22 defines requirements for sampling and analysis of effluent and requires specific design requirements for facilities.

Urban Water Management Planning Act of 1983

The California Urban Water Management Planning Act requires all publicly or privately-owned utilities that provide water service to more than 3,000 service connections or over 3,000 acre-feet per year to prepare an Urban Water Management Plan (UWMP). The UWMP is intended to support long-term resource planning and ensure suppliers have adequate supplies for existing and future demand. SB X7-7, passed in 2009, requires a reduction in 20 percent per capita water use by the year 2020. These water savings targets must be quantified in updated UWMPs.

Senate Bill 7x7 Statewide Water Conservation

SB X7-7, which was enacted in 2009, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015.

CALGreen Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, CCR) to apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in this code, throughout the State of California. CALGreen established planning and design standards for sustainable site development including water conservation and requires new buildings to reduce water consumption by 20 percent. The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011 and are updated every three years. The building efficiency standards are enforced through the local building permit process.

The California Plumbing Code

The 2010 California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code. The general purpose of the universal code is to prevent disorder in the industry as a result of widely divergent plumbing practices and the use of many different, often conflicting, plumbing codes by local jurisdictions. Among many topics covered in the code are water fixtures, potable and non-potable water systems, and recycled water systems. Water supply and distribution shall comply with all applicable provisions of the current edition of the California Plumbing Code. The Code is reviewed and updated every three years.

California Department of Resources Recycling and Recovery (CalRecycle)

CalRecycle (formerly the California Integrated Waste Management Board) oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and SB 1016, both of which are described below.

The Integrated Waste Management Act – Assembly Bill 939

AB 939 (PRC 41780) requires cities and counties to prepare integrated waste management plans (IWMP) and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements as part of the IWMP. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing and stimulate the purchase of recycled products.

California State Recycling Law – Assembly Bill 341

AB 341 is California's Mandatory Recycling Law for commercial businesses, multifamily complexes, and public entities. AB 341 went into effect on July 1, 2012, and requires all businesses that generate four or more cubic yards of garbage per week and multifamily dwellings with five or more units to recycle. AB 341 also sets a statewide goal of 75 percent waste diversion.

California Mandatory Organics Recycling Law – Assembly Bill 1826

AB 1826 is California's Mandatory Organics Recycling Law for commercial businesses and multifamily complexes. AB 1826 requires businesses to recycle organic waste on and after April 1, 2016. By January 1, 2016, local jurisdictions are required to implement an organic waste recycling program that diverts organic waste generated by businesses and multifamily residential dwellings consisting of five or more units. AB 1826 phases the mandatory recycling of commercial organic waste over time based on volume of waste generated by businesses. In April 2016, businesses generating over eight cubic yards of organic waste per week are required to arrange for organic waste recycling services; in January 2017, businesses generating over four cubic yards of organic waste per week will do the same. Additionally, jurisdictions are required to submit annual reports.

Senate Bill 1016

SB 1016 requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's integrated waste management plan. After an initial determination of diversion requirements in 2006 and establishing diversion rates for subsequent calendar years, the Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source reduction and recycling element and hazardous waste element once every two years. CalRecycle has yet to approve Fresno's diversion/disposal rates.

2006 Universal Waste Law

Since February 8, 2006, residents and small businesses in California have been prohibited from disposing of the following items in the garbage: batteries, electronic devices, fluorescent lights, and mercury thermostats.

Local

City of Fresno General Plan. The following objective and policies related to utilities can be found below:

- **Objective PU-4.** Ensure provision of adequate trunk sewer and collector main capacities to serve existing and planned urban development, consistent with the Wastewater Master Plan.
- **Objective PU-8.** Manage and develop the City's water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.

- **Policy PU-8-a: Forecast Need.** Use available and innovative tools, such as computerized flow modeling to determine system capacity, as necessary to forecast demand on water production and distribution systems by urban development, and to determine appropriate facility needs.
- **Policy PU-8-b: Potable Water Supply and Cost Recovery.** Prepare for provision of increased potable water capacity (including surface water treatment capacity) in a timely manner to facilitate planned urban development consistent with the General Plan. Accommodate increase in water demand from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law, and recognizing the differences in terms of quantity, quality and reliability of the various types of water in the City's portfolio.
- **Policy PU-8-c: Conditions of Approval.** Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.
- **Policy PU-8-d: Capital Improvement Programs Update.** Continue to evaluate Capital Improvement Programs and update them, as appropriate, to meet the demands of both existing and planned development consistent with the General Plan.
- **Policy PU-8-e: Repairs.** Continue to evaluate existing water production and distribution systems and plan for necessary repair or enhancement of damaged or antiquated facilities.
- **Policy PU-8-f: Water Quality.** Continue to evaluate and implement measures determined to be appropriate and consistent with water system policies, including prioritizing the use of groundwater, installing wellhead treatment facilities, constructing above-ground storage and surface water treatment facilities, and enhancing transmission grid mains to promote adequate water quality and quantity.
- **Policy PU-8-g: Review Project Impact on Supply.** Mitigate the effects of development and capital improvement projects on the long-range water budget to ensure an adequate water supply for current and future uses.
- **Objective PU-9.** Provide adequate solid waste facilities and services for the collection, transfer, recycling, and disposal of refuse.
- **Policy PU-9-a: New Techniques.** Continue to collaborate with affected stakeholders and partners to identify and support programs and new techniques of solid waste disposal, such as recycling, composting, waste to energy technology, and waste separation, to reduce the volume and toxicity of solid wastes that must be sent to landfill facilities.
- **Policy PU-9-b: Compliance with State Law.** Continue to pursue programs to maintain conformance with the Solid Waste Management Act of 1989 or as otherwise required by law and mandated diversion goals.
- **Policy PU-9-c: Cleanup and Nuisance Abatement.** Continue and enhance, where feasible, community sanitation programs that provide services to neighborhoods for cleanup, illegal dumping, and nuisance abatement services.
- **Policy PU-9-d: Facility Siting.** Locate private or public waste facilities and recycling facilities in conformance with City zoning and State and federal regulations, so that the transportation, processing, and disposal of these materials are not detrimental to the public health, safety, welfare, and aesthetic well-being of the surrounding community.
- **Policy RC-6-c.** Ensure that land use and development projects adhere to the objective of the Fresno Metropolitan Water Resources Management Plan to provide sustainable and reliable water supplies to meet the demand of existing and future customers through 2025.
- **Objective RC-8.** Reduce the consumption of non-renewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.

- **Policy C-8-d.** Establish an incentive program for residential developers who commit to building all their homes to ENERGY STAR performance guidelines.

4.19.3 Impact Analysis

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

Less than Significant Impact. The Project is adjacent to an urban and developed area of the City. Therefore, the Project would connect to existing water, wastewater, and stormwater infrastructure within the City. As described below in section b), the City would have adequate water supplies to serve the Project. Therefore, the Project would not require the relocation or construction of new or expanded water facilities. Additionally, as described under section c), the Project would be served by the existing wastewater treatment provider and would not require the construction of new or expanded wastewater facilities.

As mentioned previously, stormwater would be conveyed through the construction of inlets into the existing drainage basin northwest of the Project site. The construction of this stormwater infrastructure would be required to comply with applicable federal, State, and local regulations. The Project would connect to existing natural gas lines located along E. Alluvial Avenue and existing power lines in the project vicinity. Natural gas and electricity connections would be coordinated with PG&E.

Therefore, the Project would not require the relocation or construction of new water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. Impacts would be less than significant.

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

Less than Significant Impact. The Project must comply with the requirements of the Department of Public Works and the DPU for the construction of water, wastewater, and storm water drainage infrastructure. In the DPU's June 2, 2022 project comment letter, conditions were provided to the applicant for project compliance. As mentioned, the Project would comply with said conditions and requirements. In addition, the developer will be responsible for the payment of development impact fees to off-set potential impacts to regional facilities, resulting in less than significant impacts.

The Project is anticipated to consume an additional 19.06 acre-feet per year. To determine whether the increase is significant, a comparison to the supplies and demands of the General Plan land uses, and whether the increase would result in a deficit or exacerbate an existing or planned deficit.

It is expected that the City would encounter dry years and, in worst case, multiple dry years. Below is an analysis of the City's water supply, and its surpluses, with or without the Project. As depicted in **Table 4-20**, the Project would not cause a water supply deficit during multiple dry years.

Therefore, the City has sufficient water supplies available to serve the Project and its existing commitments during normal, dry, and multiple dry years. Impacts would be less than significant.

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

Less than Significant Impact. The Project will be required to comply with all regulations applicable to solid waste generation for residential projects. The DPU provided comments on June 2, 2022 regarding solid waste requirements. In order for the Project to comply with local regulations, the Project would be provided with basic container service. Each property owner will receive separate containers for solid waste, green waste, and recyclable materials. Impacts will be less than significant.

- d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The American Avenue Disposal Site located in the City of Fresno is the primary landfill serving the majority of the City of Fresno. The American Avenue Disposal Site was permitted in the year 2000, with a permitted capacity of 32,700,000 cubic yards. As of 2005 the landfill had a remaining capacity of 29,358,535 cubic yards. The landfill has a maximum permitted throughput of 2,200 tons/day and an estimated closure year of 2031. A typical residence disposes of approximately 10 pounds of solid waste each day. The 28 units proposed by the Project would generate approximately 127 cubic yards of waste per year, or approximately less than 1% of the landfill's capacity at the landfill's estimated closure date. Assuming the current maximum daily throughput of solid waste were committed to the landfill each day through its closure date, the Project's incremental contribution of 1,143 cubic yards of solid waste would not result in the need for new or physically altered landfill facilities to meet service objectives, and thus there would be a less than significant impact.

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

Less than Significant Impact. The Project will be required to comply with all regulations applicable to solid waste generation for residential projects. In order for the Project to comply with local regulations, the Project would be provided with basic container service. Each property owner will receive a container for solid waste, green waste, and recyclable materials. Impacts will be less than significant.

4.20 WILDFIRE

Table 4-40: Wildfire Impacts

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 Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.20.1 Baseline Conditions

The Project site is located in the northeast section of the City of Fresno, approximately 1.63 miles northwest of State Route 168. The Project is in an urbanized setting and would add a new subdivision to an area that already has housing in the vicinity. The Project site would be served by the City of Fresno for its fire protection needs and is not located in an area on or near a SRA. In addition, the Project site is in an urbanized setting that is not on or near land classified as a very high fire hazard severity zone. The nearest very high fire hazard severity zone is located approximately 26.4 miles northeast near Auberry.

4.20.2 Applicable Regulations

Federal

Federal Emergency Management Act

The Federal Emergency Management Agency is an agency within the United States Department of Homeland Security, signed as Executive Order 12127 on April 1, 1979 by President Jimmy Carter. A second Executive Order 12148 signed on July 20, 1979 accorded the agency with the missions of emergency management and civil defense. The state's governor must declare a state of emergency and formally request from the president that FEMA and the federal government respond to the disaster.

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance. There are two different levels of State disaster plans: “Standard,” and “Enhanced.” States that develop an approved Enhanced State Plan, which includes California, can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act has also established new requirements for local hazard mitigation plans.

National Fire Plan

The National Fire Plan was developed under Executive Order 11246 in August 2000, following a landmark wildland fire season. Its intent is to actively respond to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

State

California Fire Plan

The Strategic California Fire Plan is the State’s road map for reducing the risk of wildfire. The plan was finalized in August 2018 and directs each CAL FIRE Unit to prepare a locally specific Fire Management Plan. These documents assess the fire situation within each of CAL FIRE’s 21 units and six contract counties. The plans include stakeholder contributions and priorities and identify strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work in the fire hazard areas. The plans are required to be updated annually.

Wildland-Urban Interface Building Standards

On September 20, 2007, the Building Standards Commission approved the Office of the State Fire Marshal emergency regulations amending the California Code of Regulations, Title 24, Part 2, known as the CBC. These codes include provisions for ignition-resistant construction standards in the WUI.

California Office of Emergency Services

The California Office of Emergency Services prepares the State of California Multi-Hazard Mitigation Plan (SHMP). The SHMP identifies hazard risks and includes a vulnerability analysis and a hazard mitigation strategy. The SHMP is required Federally under the Disaster Mitigation Act of 2000 in order for the State to receive Federal funding.

California Fire and Building Code

The 2019 Fire and Building Code establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare for the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of this code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any additions connected or attached to such building structures throughout the State of California.

4.20.3 Impact Analysis

- a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project site is not located in or near an SRA area and it is approximately 26.4 miles southwest of the nearest area classified as a very high fire hazard severity zone, therefore the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. There would be no impact.

- b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The Project site is not located in or near an SRA area and it is approximately 26.4 miles southwest of the nearest area classified as a very high fire hazard severity zone, therefore the Project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, there would be no impact.

- c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, 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?

No Impact. The Project site is not located in or near an SRA area and it is approximately 26.4 miles southwest of the nearest area classified as a very high fire hazard severity zone, therefore the Project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. There would be no impact.

- d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The Project site is not located in an area that is designated on or near an SRA, nor is it on or near lands that are designated as being a very high fire hazard severity zone. Therefore, there would be no impacts.

4.21 CEQA MANDATORY FINDINGS OF SIGNIFICANCE

Table 4-41: CEQA Mandatory Findings of Significance

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

4.21.1 Statement of Findings

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigated Incorporated. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project, with incorporation of mitigation measures, will have a less than significant effect on the environment. The potential for impacts to biological resources, cultural resources, geology, and tribal cultural resources from implementation of the Project will be less than significant with the incorporation of the mitigation measures discussed in this analysis. Accordingly, the Project will involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period 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)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) 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. The Project would include a general plan amendment for purposes of allowing the development of a new residential subdivision and associated infrastructure to connect the subdivision to the City of Fresno. The Project site was anticipated for urbanization with the development of the City’s General Plan. Therefore, implementation of the Project would not result in significant cumulative impacts and all potential impacts would be reduced to less than significant through the implementation of mitigation measures and basic regulatory requirements incorporated into Project design.

- 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 analysis conducted in this Initial Study results in a determination that the Project would have a less than a substantial adverse effect on human beings, either directly or indirectly.

CHAPTER 5 MITIGATION, MONITORING, AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Project in the City of Fresno. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table 5-1 Mitigation, Monitoring, and Reporting Program presents the mitigation measures identified for the Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of **Table 5-1 Mitigation, Monitoring, and Reporting Program** identifies the mitigation measure. The second column, entitled “When Monitoring is to Occur,” identifies the time the mitigation measure should be initiated. The third column, “Frequency of Monitoring,” identifies the frequency of the monitoring of the mitigation measure. The fourth column, “Agency Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the Lead and Responsible Agencies to ensure that individual mitigation measures have been complied with and monitored.

Table 5-1: Mitigation, Monitoring, and Reporting Program

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Aesthetics						
AES-1	Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.	After construction.	Once	City of Fresno		
Biological Resources						
BIO-1	The Project's construction activities will occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.	During construction.	Once	City of Fresno		
BIO-2	If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist would conduct a pre-construction survey for all nesting birds within the Project boundary and an additional 50 feet surrounding the Project, no more than 7 days prior to the start of construction. All raptor nests would be considered "active" upon the nest-building stage.	Between February 1 and September 15.	Once	City of Fresno		
BIO-3	On discovery of any active nests or breeding colonies near work areas, the qualified biologist will determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Construction buffers will be identified with flagging, fencing, or other easily visible means, and will be maintained until the biologist has determined that the nestlings have fledged and are no longer dependent on the nest.	Upon discovery.	Once	City of Fresno		
Cultural Resources and Tribal Cultural Resources						
CUL-1 TCR-1	Should archaeological remains or artifacts be unearthed during any stage of Project activities, work in the area of discovery shall cease until the area is evaluated by a qualified archaeologist. If additional mitigation is warranted, the Project proponent shall abide by recommendations of the archaeologist.	During construction	Continuously	City of Fresno		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
PEIR CUL-3 TCR-2	In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area suspected to overlie adjacent remains until the Fresno County Coroner has determined that the remains are not subject to any provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.	Upon discovery of human remains	Continuously	City of Fresno		
Geology and Soils						
GEO-1	Should paleontological resources be encountered on the Project site, all ground disturbing activities in the area shall stop. A qualified paleontologist shall be contacted to assess the discovery. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City of Visalia for review, and (if paleontological materials are recovered) a paleontological repository, such as the University of California Museum of Paleontology.	Upon discovery of paleontological resources	Continuously	City of Fresno		
Noise						
PEIR NOI-2	The use of heavy construction equipment within 25 feet of existing structures shall be prohibited.	Prior to issuance of any grading or construction permits, the Planning and Development Department shall ensure that project	Once	City of Fresno		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
		construction specifications prohibit heavy construction within 25 feet of existing structures.				

CHAPTER 6 REFERENCES

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Appendix A: CalEEMod Output Files

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Palms at Alluvial
Fresno County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	28.00	Dwelling Unit	1.75	43,632.00	86
Other Non-Asphalt Surfaces	7.93	1000sqft	0.18	7,925.00	0
Parking Lot	34.20	1000sqft	0.79	34,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Residential square footage set to actual
Population based on Housing Element

Construction Phase -

Architectural Coating - Rule 4601 VOC limits

Vehicle Trips - Using 11th Edition ITE Trip Generation Rates

Vehicle Emission Factors -

Fleet Mix - 2023 District Accepted Fleet Mix for Residential Projects

Area Coating - Rule 4601 VOC limits

Mobile Land Use Mitigation -

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area Mitigation - Rule 4601 VOC Limits

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstructionPhase	PhaseEndDate	7/12/2023	6/9/2023
tblConstructionPhase	PhaseEndDate	6/14/2023	5/12/2023
tblConstructionPhase	PhaseEndDate	8/10/2022	7/8/2022
tblConstructionPhase	PhaseEndDate	6/28/2023	5/26/2023
tblConstructionPhase	PhaseStartDate	6/29/2023	5/27/2023
tblConstructionPhase	PhaseStartDate	8/11/2022	7/9/2022
tblConstructionPhase	PhaseStartDate	8/3/2022	7/1/2022
tblConstructionPhase	PhaseStartDate	6/15/2023	5/13/2023
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.51	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	1.1000e-003
tblFleetMix	LHD2	7.0060e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	3.0900e-003	1.9000e-003
tblFleetMix	MHD	0.01	8.5000e-003
tblFleetMix	OBUS	7.1700e-004	0.00
tblFleetMix	SBUS	1.5290e-003	4.0000e-004
tblFleetMix	UBUS	2.9100e-004	4.3000e-003

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LandUseSquareFeet	28,000.00	43,632.00
tblLandUse	Population	80.00	86.00
tblVehicleTrips	ST_TR	8.14	4.55
tblVehicleTrips	SU_TR	6.28	3.86
tblVehicleTrips	WD_TR	7.32	6.74
tblWoodstoves	NumberCatalytic	1.75	0.00
tblWoodstoves	NumberNoncatalytic	1.75	0.00

2.0 Emissions Summary

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1300	1.0029	0.9965	1.9300e-003	0.0446	0.0466	0.0912	0.0166	0.0446	0.0611	0.0000	163.4313	163.4313	0.0274	2.3600e-003	164.8191
2023	0.2366	0.7214	0.7943	1.5200e-003	0.0185	0.0319	0.0504	4.9900e-003	0.0305	0.0355	0.0000	129.0498	129.0498	0.0216	1.7300e-003	130.1041
Maximum	0.2366	1.0029	0.9965	1.9300e-003	0.0446	0.0466	0.0912	0.0166	0.0446	0.0611	0.0000	163.4313	163.4313	0.0274	2.3600e-003	164.8191

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1300	1.0029	0.9965	1.9300e-003	0.0446	0.0466	0.0912	0.0166	0.0446	0.0611	0.0000	163.4311	163.4311	0.0274	2.3600e-003	164.8189
2023	0.2366	0.7214	0.7943	1.5200e-003	0.0185	0.0319	0.0504	4.9900e-003	0.0305	0.0355	0.0000	129.0497	129.0497	0.0216	1.7300e-003	130.1040
Maximum	0.2366	1.0029	0.9965	1.9300e-003	0.0446	0.0466	0.0912	0.0166	0.0446	0.0611	0.0000	163.4311	163.4311	0.0274	2.3600e-003	164.8189

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
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	7-1-2022	9-30-2022	0.5699	0.5699
2	10-1-2022	12-31-2022	0.5670	0.5670
3	1-1-2023	3-31-2023	0.5144	0.5144
4	4-1-2023	6-30-2023	0.4386	0.4386
		Highest	0.5699	0.5699

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1949	0.0129	0.2128	8.0000e-005		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	12.4702	12.4702	5.6000e-004	2.2000e-004	12.5505
Energy	2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	32.2008	32.2008	2.3000e-003	6.1000e-004	32.4388
Mobile	0.0553	0.1027	0.6492	1.7600e-003	0.1839	1.2900e-003	0.1852	0.0490	1.2100e-003	0.0502	0.0000	166.8440	166.8440	0.0125	8.3100e-003	169.6325
Waste						0.0000	0.0000		0.0000	0.0000	2.6145	0.0000	2.6145	0.1545	0.0000	6.4774
Water						0.0000	0.0000		0.0000	0.0000	0.5788	1.2858	1.8646	0.0597	1.4300e-003	3.7817
Total	0.2523	0.1332	0.8694	1.9500e-003	0.1839	4.7100e-003	0.1887	0.0490	4.6300e-003	0.0537	3.1933	212.8008	215.9941	0.2296	0.0106	224.8807

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
Area	0.1949	0.0129	0.2128	8.0000e-005		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	12.4702	12.4702	5.6000e-004	2.2000e-004	12.5505
Energy	2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	32.2008	32.2008	2.3000e-003	6.1000e-004	32.4388
Mobile	0.0546	0.0976	0.6160	1.6500e-003	0.1712	1.2100e-003	0.1725	0.0457	1.1300e-003	0.0468	0.0000	155.6952	155.6952	0.0119	7.8700e-003	158.3370
Waste						0.0000	0.0000		0.0000	0.0000	2.6145	0.0000	2.6145	0.1545	0.0000	6.4774
Water						0.0000	0.0000		0.0000	0.0000	0.5788	1.2858	1.8646	0.0597	1.4300e-003	3.7817
Total	0.2516	0.1281	0.8362	1.8400e-003	0.1712	4.6300e-003	0.1759	0.0457	4.5500e-003	0.0502	3.1933	201.6520	204.8453	0.2289	0.0101	213.5853

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.28	3.82	3.82	5.64	6.90	1.70	6.77	6.91	1.73	6.45	0.00	5.24	5.16	0.27	4.16	5.02

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	7/8/2022	5	6	
2	Building Construction	Building Construction	7/9/2022	5/12/2023	5	220	
3	Paving	Paving	5/13/2023	5/26/2023	5	10	

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Architectural Coating	Architectural Coating	5/27/2023	6/9/2023	5	10
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Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 6****Acres of Paving: 0.97****Residential Indoor: 88,355; Residential Outdoor: 29,452; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,528 (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
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

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
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	8	38.00	10.00	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	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Grading - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	4.6200e-003	0.0510	0.0277	6.0000e-005	0.0213	2.2300e-003	0.0235	0.0103	2.0500e-003	0.0123	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	7.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1961	0.1961	1.0000e-005	1.0000e-005	0.1980
Total	1.0000e-004	7.0000e-005	7.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1961	0.1961	1.0000e-005	1.0000e-005	0.1980

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	4.6200e-003	0.0510	0.0277	6.0000e-005	0.0213	2.2300e-003	0.0235	0.0103	2.0500e-003	0.0123	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	7.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1961	0.1961	1.0000e-005	1.0000e-005	0.1980
Total	1.0000e-004	7.0000e-005	7.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1961	0.1961	1.0000e-005	1.0000e-005	0.1980

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1160	0.9128	0.8971	1.5600e-003		0.0439	0.0439		0.0421	0.0421	0.0000	129.8001	129.8001	0.0250	0.0000	130.4261
Total	0.1160	0.9128	0.8971	1.5600e-003		0.0439	0.0439		0.0421	0.0421	0.0000	129.8001	129.8001	0.0250	0.0000	130.4261

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2900e-003	0.0337	9.5400e-003	1.3000e-004	4.1400e-003	3.6000e-004	4.5100e-003	1.2000e-003	3.5000e-004	1.5400e-003	0.0000	12.4806	12.4806	9.0000e-005	1.8800e-003	13.0433
Worker	7.9900e-003	5.4500e-003	0.0614	1.7000e-004	0.0190	1.0000e-004	0.0191	5.0500e-003	9.0000e-005	5.1400e-003	0.0000	15.5238	15.5238	5.1000e-004	4.7000e-004	15.6769
Total	9.2800e-003	0.0392	0.0709	3.0000e-004	0.0231	4.6000e-004	0.0236	6.2500e-003	4.4000e-004	6.6800e-003	0.0000	28.0043	28.0043	6.0000e-004	2.3500e-003	28.7202

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1160	0.9128	0.8971	1.5600e-003		0.0439	0.0439		0.0421	0.0421	0.0000	129.7999	129.7999	0.0250	0.0000	130.4260
Total	0.1160	0.9128	0.8971	1.5600e-003		0.0439	0.0439		0.0421	0.0421	0.0000	129.7999	129.7999	0.0250	0.0000	130.4260

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2900e-003	0.0337	9.5400e-003	1.3000e-004	4.1400e-003	3.6000e-004	4.5100e-003	1.2000e-003	3.5000e-004	1.5400e-003	0.0000	12.4806	12.4806	9.0000e-005	1.8800e-003	13.0433
Worker	7.9900e-003	5.4500e-003	0.0614	1.7000e-004	0.0190	1.0000e-004	0.0191	5.0500e-003	9.0000e-005	5.1400e-003	0.0000	15.5238	15.5238	5.1000e-004	4.7000e-004	15.6769
Total	9.2800e-003	0.0392	0.0709	3.0000e-004	0.0231	4.6000e-004	0.0236	6.2500e-003	4.4000e-004	6.6800e-003	0.0000	28.0043	28.0043	6.0000e-004	2.3500e-003	28.7202

3.3 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0814	0.6471	0.6752	1.1900e-003		0.0292	0.0292		0.0279	0.0279	0.0000	98.6585	98.6585	0.0187	0.0000	99.1249
Total	0.0814	0.6471	0.6752	1.1900e-003		0.0292	0.0292		0.0279	0.0279	0.0000	98.6585	98.6585	0.0187	0.0000	99.1249

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0209	6.2500e-003	1.0000e-004	3.1500e-003	1.3000e-004	3.2800e-003	9.1000e-004	1.3000e-004	1.0400e-003	0.0000	9.1355	9.1355	5.0000e-005	1.3800e-003	9.5465
Worker	5.5900e-003	3.6200e-003	0.0427	1.2000e-004	0.0144	7.0000e-005	0.0145	3.8400e-003	6.0000e-005	3.9000e-003	0.0000	11.4907	11.4907	3.5000e-004	3.3000e-004	11.5974
Total	6.1000e-003	0.0245	0.0489	2.2000e-004	0.0176	2.0000e-004	0.0178	4.7500e-003	1.9000e-004	4.9400e-003	0.0000	20.6262	20.6262	4.0000e-004	1.7100e-003	21.1439

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0814	0.6471	0.6752	1.1900e-003		0.0292	0.0292		0.0279	0.0279	0.0000	98.6584	98.6584	0.0187	0.0000	99.1248
Total	0.0814	0.6471	0.6752	1.1900e-003		0.0292	0.0292		0.0279	0.0279	0.0000	98.6584	98.6584	0.0187	0.0000	99.1248

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0209	6.2500e-003	1.0000e-004	3.1500e-003	1.3000e-004	3.2800e-003	9.1000e-004	1.3000e-004	1.0400e-003	0.0000	9.1355	9.1355	5.0000e-005	1.3800e-003	9.5465
Worker	5.5900e-003	3.6200e-003	0.0427	1.2000e-004	0.0144	7.0000e-005	0.0145	3.8400e-003	6.0000e-005	3.9000e-003	0.0000	11.4907	11.4907	3.5000e-004	3.3000e-004	11.5974
Total	6.1000e-003	0.0245	0.0489	2.2000e-004	0.0176	2.0000e-004	0.0178	4.7500e-003	1.9000e-004	4.9400e-003	0.0000	20.6262	20.6262	4.0000e-004	1.7100e-003	21.1439

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	1.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.4300e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	1.7700e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4775	0.4775	1.0000e-005	1.0000e-005	0.4819
Total	2.3000e-004	1.5000e-004	1.7700e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4775	0.4775	1.0000e-005	1.0000e-005	0.4819

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	1.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.4300e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	1.7700e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4775	0.4775	1.0000e-005	1.0000e-005	0.4819
Total	2.3000e-004	1.5000e-004	1.7700e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4775	0.4775	1.0000e-005	1.0000e-005	0.4819

3.5 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1424					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.1433	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	8.0000e-005	9.5000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2546	0.2546	1.0000e-005	1.0000e-005	0.2570
Total	1.2000e-004	8.0000e-005	9.5000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2546	0.2546	1.0000e-005	1.0000e-005	0.2570

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1424					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.1433	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Architectural Coating - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	8.0000e-005	9.5000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2546	0.2546	1.0000e-005	1.0000e-005	0.2570
Total	1.2000e-004	8.0000e-005	9.5000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2546	0.2546	1.0000e-005	1.0000e-005	0.2570

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
Mitigated	0.0546	0.0976	0.6160	1.6500e-003	0.1712	1.2100e-003	0.1725	0.0457	1.1300e-003	0.0468	0.0000	155.6952	155.6952	0.0119	7.8700e-003	158.3370
Unmitigated	0.0553	0.1027	0.6492	1.7600e-003	0.1839	1.2900e-003	0.1852	0.0490	1.2100e-003	0.0502	0.0000	166.8440	166.8440	0.0125	8.3100e-003	169.6325

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	188.72	127.40	108.08	493,474	459,424
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	188.72	127.40	108.08	493,474	459,424

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
Apartments Low Rise	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900
Other Non-Asphalt Surfaces	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

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Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
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5.0 Energy Detail

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.8096	11.8096	1.9100e-003	2.3000e-004	11.9264
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.8096	11.8096	1.9100e-003	2.3000e-004	11.9264
NaturalGas Mitigated	2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.3912	20.3912	3.9000e-004	3.7000e-004	20.5124
NaturalGas Unmitigated	2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.3912	20.3912	3.9000e-004	3.7000e-004	20.5124

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	382117	2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.3912	20.3912	3.9000e-004	3.7000e-004	20.5124
Other Non-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
Parking Lot	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
Total		2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.3912	20.3912	3.9000e-004	3.7000e-004	20.5124

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	382117	2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.3912	20.3912	3.9000e-004	3.7000e-004	20.5124
Other Non-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
Parking Lot	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
Total		2.0600e-003	0.0176	7.4900e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.3912	20.3912	3.9000e-004	3.7000e-004	20.5124

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	115669	10.7021	1.7300e-003	2.1000e-004	10.8079
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	11970	1.1075	1.8000e-004	2.0000e-005	1.1185
Total		11.8096	1.9100e-003	2.3000e-004	11.9264

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	115669	10.7021	1.7300e-003	2.1000e-004	10.8079
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	11970	1.1075	1.8000e-004	2.0000e-005	1.1185
Total		11.8096	1.9100e-003	2.3000e-004	11.9264

6.0 Area Detail**6.1 Mitigation Measures Area**

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
Mitigated	0.1949	0.0129	0.2128	8.0000e-005		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	12.4702	12.4702	5.6000e-004	2.2000e-004	12.5505
Unmitigated	0.1949	0.0129	0.2128	8.0000e-005		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	12.4702	12.4702	5.6000e-004	2.2000e-004	12.5505

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2300e-003	0.0105	4.4600e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1298	12.1298	2.3000e-004	2.2000e-004	12.2019
Landscaping	6.3000e-003	2.4000e-003	0.2083	1.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003	0.0000	0.3404	0.3404	3.3000e-004	0.0000	0.3486
Total	0.1949	0.0129	0.2128	8.0000e-005		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	12.4702	12.4702	5.6000e-004	2.2000e-004	12.5505

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2300e-003	0.0105	4.4600e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1298	12.1298	2.3000e-004	2.2000e-004	12.2019
Landscaping	6.3000e-003	2.4000e-003	0.2083	1.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003	0.0000	0.3404	0.3404	3.3000e-004	0.0000	0.3486
Total	0.1949	0.0129	0.2128	8.0000e-005		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	12.4702	12.4702	5.6000e-004	2.2000e-004	12.5505

7.0 Water Detail**7.1 Mitigation Measures Water**

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.8646	0.0597	1.4300e-003	3.7817
Unmitigated	1.8646	0.0597	1.4300e-003	3.7817

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.82431 / 1.15011	1.8646	0.0597	1.4300e-003	3.7817
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.8646	0.0597	1.4300e-003	3.7817

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.82431 / 1.15011	1.8646	0.0597	1.4300e-003	3.7817
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.8646	0.0597	1.4300e-003	3.7817

8.0 Waste Detail

8.1 Mitigation Measures Waste

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.6145	0.1545	0.0000	6.4774
Unmitigated	2.6145	0.1545	0.0000	6.4774

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	12.88	2.6145	0.1545	0.0000	6.4774
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		2.6145	0.1545	0.0000	6.4774

Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	12.88	2.6145	0.1545	0.0000	6.4774
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		2.6145	0.1545	0.0000	6.4774

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Palms at Alluvial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

Appendix B: Biological Evaluation

Memorandum

To: Stallion Development & Construction

From: Provost & Prichard: Roman Endicott, Intern Biologist and Shaylea Stark, Biologist

Subject: Biological Review of the Stallion Development and Construction Project

Date: April 19, 2022

Biological Review

The Project's Area of Potential Effect (APE) that was reviewed for biological resources consisted of approximately three acres with an additional 50-foot buffer surrounding the Project (see **Attachment A**). The topography is relatively flat across the San Joaquin Valley Floor and the APE is situated at approximately 300 feet in elevation in an urbanized area within the City of Fresno. The entire APE lies on a dirt lot adjacent to a pre-existing parking lot and residential neighborhoods. The existing roadway adjacent to the APE is paved.

Methodology

A thorough search of the California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDDB), the United States Fish and Wildlife Service (USFWS), Information for Planning, Consultation (IPaC), and iNaturalist were reviewed for potential special status plant and animal species that may be found in and around the APE. The CNDDDB search included the United States Geologic Survey (USGS) areas encompassing the *Clovis* 7.5-minute quadrangle that contain the APE in its entirety, and for the eight surrounding quadrangles: *Lanes Bridge*, *Friant*, *Academy*, *Round Mountain*, *Sanger*, *Malaga*, *Fresno South*, and *Fresno North*. The full CNDDDB and IPaC species list can be found in **Attachment B** and **Attachment C** at the end of this document. No field survey was conducted. Viewing of the APE was achieved utilizing satellite imagery.

Special Status Species

There are 35 special status animal species and 16 special status plant species found within the nine-quad search. Species found within three miles of the APE includes six species which are explained further in **Tables 1 and 2** below. This list excludes observations with unknown occurrence locations that were mapped to the center of Fresno as a best guess by CNDDDB.

Table 1. List of Special Status Animals with Potential to Occur Onsite and/or in the Vicinity.

Species	Status	Habitat	Occurrence on APE
California tiger salamander (<i>Ambystoma californiense</i>)	FT, CT, CWL	Requires vernal pools or seasonal ponds for breeding and small mammal burrows for aestivation. Generally found in grassland and oak savannah plant communities in central California from sea level to 1500 feet in elevation.	Absent. Suitable vernal pool and upland habitat for this species is absent from the APE. Both recorded observations within three miles of the APE are considered to be extirpated.
Monarch butterfly (<i>Danaus plexippus</i>)	FC	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Unlikely. Overwintering roost sites are absent from the APE. Marginal vegetation is present and would not provide optimal foraging habitat. There are no recorded observations within the nine quad search and the closest observation on iNaturalist was approximately five miles away.
Tricolored blackbird (<i>Agelaius tricolor</i>)	CT, CSC	Nests colonially near fresh water in dense cattails or tules, or in thickets of riparian shrubs. Forages in grassland and cropland. Large colonies are often found on dairy farm forage fields.	Absent. Suitable wetland habitat is absent from the APE and surrounding area. Nesting and foraging would not be supported.
Western pond turtle (<i>Emys marmorata</i>)	CSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams, and irrigation ditches with riparian vegetation. Requires adequate basking sites and sandy banks or grassy open fields to deposit eggs.	Unlikely. Nesting and foraging habitat is absent from the APE. The nearest surface waters are an underground canal adjacent to the APE and a recharge basin a half mile west. Nesting and foraging habitat is fragmented and likely would not support this species.

Table 2. List of Special Status Plants with Potential to Occur Onsite and/or in the Vicinity.

Species	Status	Habitat	Occurrence on APE
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, CE, CNPS 1B	Found in the eastern San Joaquin Valley and the Sierra Nevada foothills in vernal pools within valley grassland, freshwater wetland, and wetland-riparian communities at elevations below 2600 feet. Blooms April – September.	Absent. Suitable habitat and soil for the species is absent from the APE. The only recorded occurrence of this species in the area is considered to be extirpated.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	CNPS 1B	Found in the San Joaquin Valley and other parts of California in freshwater-marsh, primarily ponds and ditches, at elevations below 1000 feet. Blooms May–October.	Absent: Suitable habitat and soil for this species is absent from the APE. The last observation within three miles of the APE was in recorded in 1954. The site was searched again in 1980 and the species was not found.
Succulent owl's-clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	FT, CE, CNPS 1B	Found in vernal pools, often in acidic soils at elevations below 2500 feet. Blooms April – July.	Absent: Suitable habitat and soil for this species is absent from the APE. The nearest observation approximately three miles away in 1938 is now considered to be possibly extirpated due to the site being disced in 1981.

EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES

Present:	Species observed on the site at time of field surveys or during recent past.
Likely:	Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible:	Species not observed on the site, but it could occur there from time to time.
Unlikely:	Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient.
Absent:	Species not observed on the site and precluded from occurring there due to absence of suitable habitat.

STATUS CODES

FT	Federally Threatened	CE	California Endangered
FC	Federal Candidate	CT	California Threatened
		CSC	California Species of Concern

CNPS LISTING

1B Plants Rare, Threatened, or Endangered in California and elsewhere.

Designated Habitat and Communities

The CDFW and USFWS often designates areas of “Critical Habitat” when it lists species as threatened or endangered. Critical Habitat is a specific geographic area that contains features essential for the conservation of a threatened or endangered species and would require special management or protection. According to CNDDDB and IPaC, designated critical habitat is absent from the APE and vicinity.

CDFW also designates “natural communities of special concern” and are defined by distinguished, significant biological diversity, or a home to special status species. According to CNDDDB Northern Claypan Vernal Pool is designated as a natural community of special concern and is located 2.5 miles west of the APE. Northern Hardpan Vernal Pool is designated as a natural community of special concern and is located 4 miles northeast, 7 miles northwest, 7.5 miles north, 9 miles northwest, and 11 miles northwest of the APE. Great Valley Mixed Riparian Forest is designated as a natural community of special concern and is located 5.5 miles north of the APE. Sycamore Alluvial Woodland is designated as a natural community of special concern and is located 6.5 miles north of the APE. These natural communities would not be impacted by the Project.

Wildlife Corridors

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation. The APE does not contain features that would be likely to function as wildlife movement corridors. Further, the APE is heavily disturbed by human activities, which would discourage dispersal and migration.

Waters

The nearest surface waters are an unnamed canal that runs 300 feet west of the APE. A watershed is the topographic region that drains into a stream, river, or lake and can consist of many smaller subwatersheds. The James Bypass watershed is comprised of stormwater or snowmelt collected in upland areas which flows down into Tollhouse Creek, Sand Creek, North Fork Willow Creek, North Fork Little Dry Creek, and Little Dry Creek, which all run into Dry Creek. Dry Creek then flows into the unnamed canal that runs adjacent to the APE. The APE lies within

the James Bypass watershed; Hydrologic Unit Code (HUC): 1803000907 and the Gates Lake subwatershed; HUC: 180300090701.

Soils

One soil mapping unit representing a singular soil type was identified within the APE. Hanford fine sandy loam, clay loam substratum is found within 100 percent of the APE. It is well drained, has moderately rapid permeability and very low runoff. This soil is primarily used for agriculture, dairies, and urban development. None of the major or minor soil mapping units were identified as hydric. Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions, hydrophytic vegetation can be supported.

The full soil report can be found in **Attachment D** at the end of this document.

Biotic Habitat

The APE is located within a residential and commercial area with disturbed dirt lots interspersed throughout the surrounding area.

Of the four regionally occurring special status animal species, all of them were found to be absent or unlikely to occur within the APE due to unsuitable habitat. As identified in **Table 1**, these species include: California tiger salamander, monarch butterfly, Tricolored Blackbird, and western pond turtle. Since it is unlikely these species would occur onsite, implementation of the Project would have no impact on these special status species through construction mortality, disturbance, or loss of habitat. Protection measures are not warranted.

All three regionally occurring special status plant species are considered absent from occurring in the APE due to unsuitable soils and habitat. As identified in **Table 2**, these species include: San Joaquin Valley orcutt grass, Sanford's arrowhead, and succulent owl's-clover. Since it is unlikely that these species would occur onsite, implementation of the Project would have no impact on these three special status species through construction mortality, disturbance, or loss of habitat. Protection measures are not warranted.

The APE contains suitable nesting and/or foraging habitat for ground and tree nesting avian species. The following Protective Measures are identified to address potential nesting birds in the APE.

1. The Project's construction activities will occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.
2. If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist would conduct a pre-construction survey for all nesting birds within the Project boundary and an additional 50 feet surrounding the Project, no more than 7 days prior to the start of construction. All raptor nests would be considered "active" upon the nest-building stage.
3. On discovery of any active nests or breeding colonies near work areas, the qualified biologist will determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Construction buffers will be identified with flagging, fencing, or other easily visible means,

and will be maintained until the biologist has determined that the nestlings have fledged and are no longer dependent on the nest.

Summary of Review

Although there is a potential for construction impacts to plant and animal species, Project activities are within an urbanized area and are outside of suitable habitat for all of the identified special status plant and animal species. However, there are many bird species that are tolerant of human activities and may choose to nest within the APE. By adhering to the Protective Measures discussed above, there would be less than significant impacts to these species.

Protected habitats and natural communities, wildlife corridors, and waters of the State or United States are outside of the APE and would not be impacted by the Project.

If Project activities were to change or the Project APE were to be altered, an additional biological review may be necessary to determine any further potential biological impacts. If you have any questions or need further information, please do not hesitate to contact us at rendicott@ppeng.com or sstark@ppeng.com.

Sincerely,



Roman Endicott
Intern Biologist

Attachments:

Attachment A - APE

Attachment B - CNDDDB Species List

Attachment C - IPaC Species List

Attachment D - NRCS Soil Report

Attachment A - APE



 Project Site (3.1 Acres)



0 150 300
Feet

**Stallion Development
and Construction**

**PROVOST &
PRITCHARD**

Attachment B - CNDDDB Species List



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Clovis (3611976) OR Friant (3611986) OR Academy (3611985) OR Round Mountain (3611975) OR Sanger (3611965) OR Malaga (3611966) OR Fresno South (3611967) OR Fresno North (3611977) OR Lanes Bridge (3611987))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
Antioch efferian robberfly <i>Efferia antiochi</i>	IIDIP07010	None	None	G1G2	S1S2	
black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010	None	None	G5	S4	
bristly sedge <i>Carex comosa</i>	PMCYP032Y0	None	None	G5	S2	2B.1
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
California glossy snake <i>Arizona elegans occidentalis</i>	ARADB01017	None	None	G5T2	S2	SSC
California horned lark <i>Eremophila alpestris actia</i>	ABPAT02011	None	None	G5T4Q	S4	WL
California jewelflower <i>Caulanthus californicus</i>	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
California linderiella <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	
California satintail <i>Imperata brevifolia</i>	PMPOA3D020	None	None	G4	S3	2B.1
California tiger salamander - central California DPS <i>Ambystoma californiense pop. 1</i>	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
coast horned lizard <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G3G4	S3S4	SSC
Crotch bumble bee <i>Bombus crotchii</i>	IIHYM24480	None	None	G3G4	S1S2	
double-crested cormorant <i>Nannopterum auritum</i>	ABNFD01020	None	None	G5	S4	WL
dwarf downingia <i>Downingia pusilla</i>	PDCAM060C0	None	None	GU	S2	2B.2
forked hare-leaf <i>Lagophylla dichotoma</i>	PDAST5J070	None	None	G2	S2	1B.1
Fresno kangaroo rat <i>Dipodomys nitratooides exilis</i>	AMAFD03151	Endangered	Endangered	G3TH	SH	
great egret <i>Ardea alba</i>	ABNGA04040	None	None	G5	S4	
Great Valley Mixed Riparian Forest <i>Great Valley Mixed Riparian Forest</i>	CTT61420CA	None	None	G2	S2.2	



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Greene's tuctoria <i>Tuctoria greenei</i>	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
hairy Orcutt grass <i>Orcuttia pilosa</i>	PMPOA4G040	Endangered	Endangered	G1	S1	1B.1
hardhead <i>Mylopharodon conocephalus</i>	AFCJB25010	None	None	G3	S3	SSC
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	PDAST7P010	Endangered	Endangered	G1	S1	1B.1
hoary bat <i>Lasiurus cinereus</i>	AMACC05030	None	None	G3G4	S4	
Hoover's calycadenia <i>Calycadenia hooveri</i>	PDAST1P040	None	None	G2	S2	1B.3
Hurd's metapogon robberfly <i>Metapogon hurdi</i>	IIDIP08010	None	None	G1G2	S1S2	
least Bell's vireo <i>Vireo bellii pusillus</i>	ABPBW01114	Endangered	Endangered	G5T2	S2	
Madera leptosiphon <i>Leptosiphon serrulatus</i>	PDPLM09130	None	None	G3	S3	1B.2
midvalley fairy shrimp <i>Branchinecta mesoallensis</i>	ICBRA03150	None	None	G2	S2S3	
moestan blister beetle <i>Lytta moesta</i>	IICOL4C020	None	None	G2	S2	
molestan blister beetle <i>Lytta molesta</i>	IICOL4C030	None	None	G2	S2	
Northern California legless lizard <i>Anniella pulchra</i>	ARACC01020	None	None	G3	S3	SSC
Northern Claypan Vernal Pool <i>Northern Claypan Vernal Pool</i>	CTT44120CA	None	None	G1	S1.1	
Northern Hardpan Vernal Pool <i>Northern Hardpan Vernal Pool</i>	CTT44110CA	None	None	G3	S3.1	
pallid bat <i>Antrozous pallidus</i>	AMACC10010	None	None	G4	S3	SSC
pincushion navarretia <i>Navarretia myersii ssp. myersii</i>	PDPLM0C0X1	None	None	G2T2	S2	1B.1
San Joaquin adobe sunburst <i>Pseudobahia peirsonii</i>	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S2	
San Joaquin pocket mouse <i>Perognathus inornatus</i>	AMAFD01060	None	None	G2G3	S2S3	
San Joaquin Valley Orcutt grass <i>Orcuttia inaequalis</i>	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sanford's arrowhead <i>Sagittaria sanfordii</i>	PMALI040Q0	None	None	G3	S3	1B.2
snowy egret <i>Egretta thula</i>	ABNGA06030	None	None	G5	S4	
spiny-sepaled button-celery <i>Eryngium spinosepalum</i>	PDAP10Z0Y0	None	None	G2	S2	1B.2
spotted bat <i>Euderma maculatum</i>	AMACC07010	None	None	G4	S3	SSC
succulent owl's-clover <i>Castilleja campestris</i> var. <i>succulenta</i>	PDSCR0D3Z1	Threatened	Endangered	G4?T2T3	S2S3	1B.2
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	
Sycamore Alluvial Woodland <i>Sycamore Alluvial Woodland</i>	CTT62100CA	None	None	G1	S1.1	
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T2	S3	
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
western mastiff bat <i>Eumops perotis californicus</i>	AMACD02011	None	None	G4G5T4	S3S4	SSC
western pond turtle <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
western ridged mussel <i>Gonidea angulata</i>	IMBIV19010	None	None	G3	S1S2	
western spadefoot <i>Spea hammondi</i>	AAABF02020	None	None	G2G3	S3	SSC
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Threatened	Endangered	G5T2T3	S1	

Record Count: 55

Attachment C - IPaC Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

March 31, 2022

Project Code: 2022-0026789

Project Name: Stallion Development Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Project Code:	2022-0026789
Event Code:	None
Project Name:	Stallion Development Project
Project Type:	New Constr - Above Ground
Project Description:	New construction of an apartment complex on a vacant lot
Project Location:	

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@36.8459454,-119.7322659,4042639,14z>



Counties: Fresno County, California

Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fresno Kangaroo Rat <i>Dipodomys nitratoides exilis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Greene's Tuctoria <i>Tuctoria greenei</i>	Endangered
There is final critical habitat for this species. The location of the critical habitat is not available.	
Species profile: https://ecos.fws.gov/ecp/species/1573	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Provost & Pritchard Consulting Group
Name: Roman Endicott
Address: 455 W. Fir Ave
City: Clovis
State: CA
Zip: 93611
Email: rendicott@ppeng.com
Phone: 5594492700

Attachment D - NRCS Soil Report



United States
Department of
Agriculture

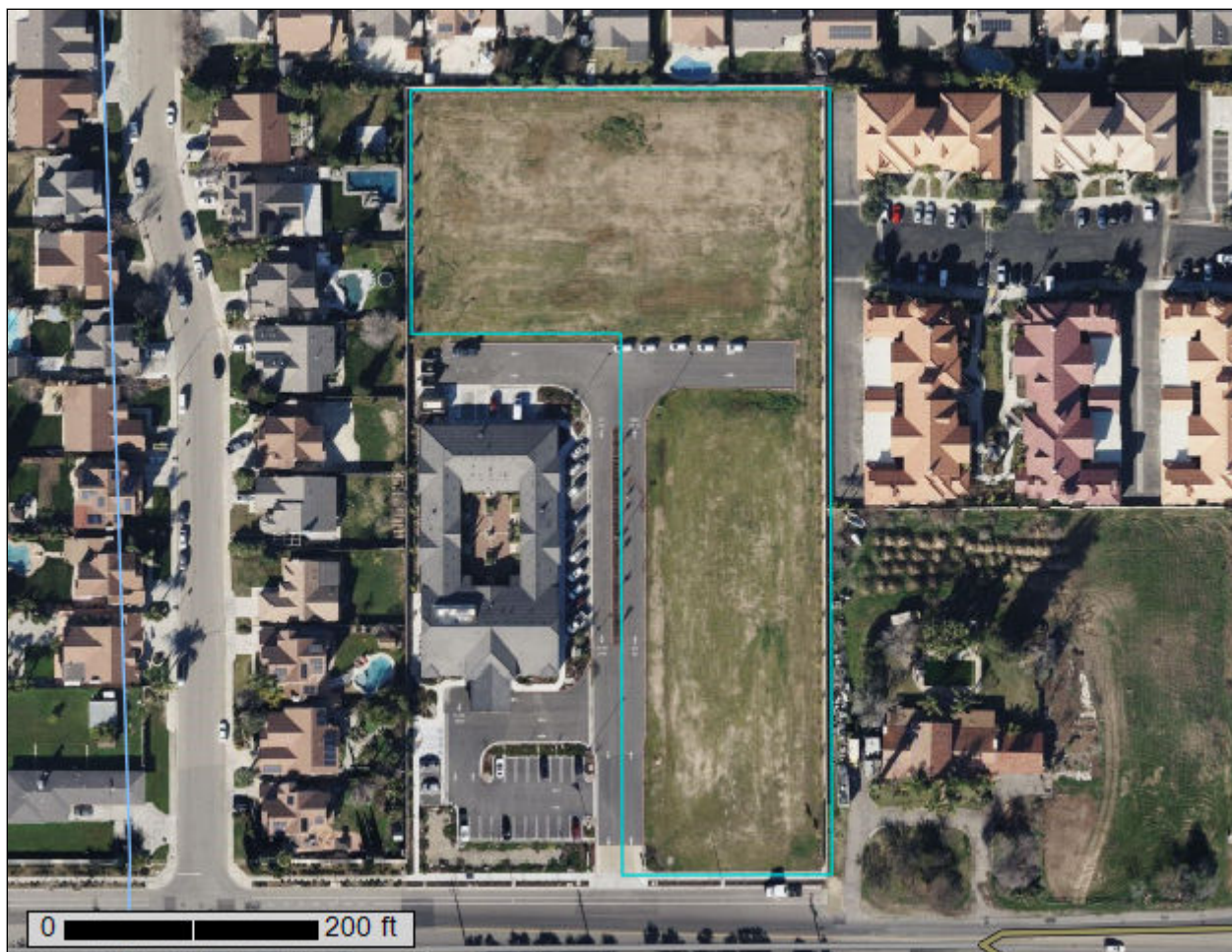
NRCS

Natural
Resources
Conservation
Service

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

Custom Soil Resource Report for Eastern Fresno Area, California

Stallion Development Project



Preface

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

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

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

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

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

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

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How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

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

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

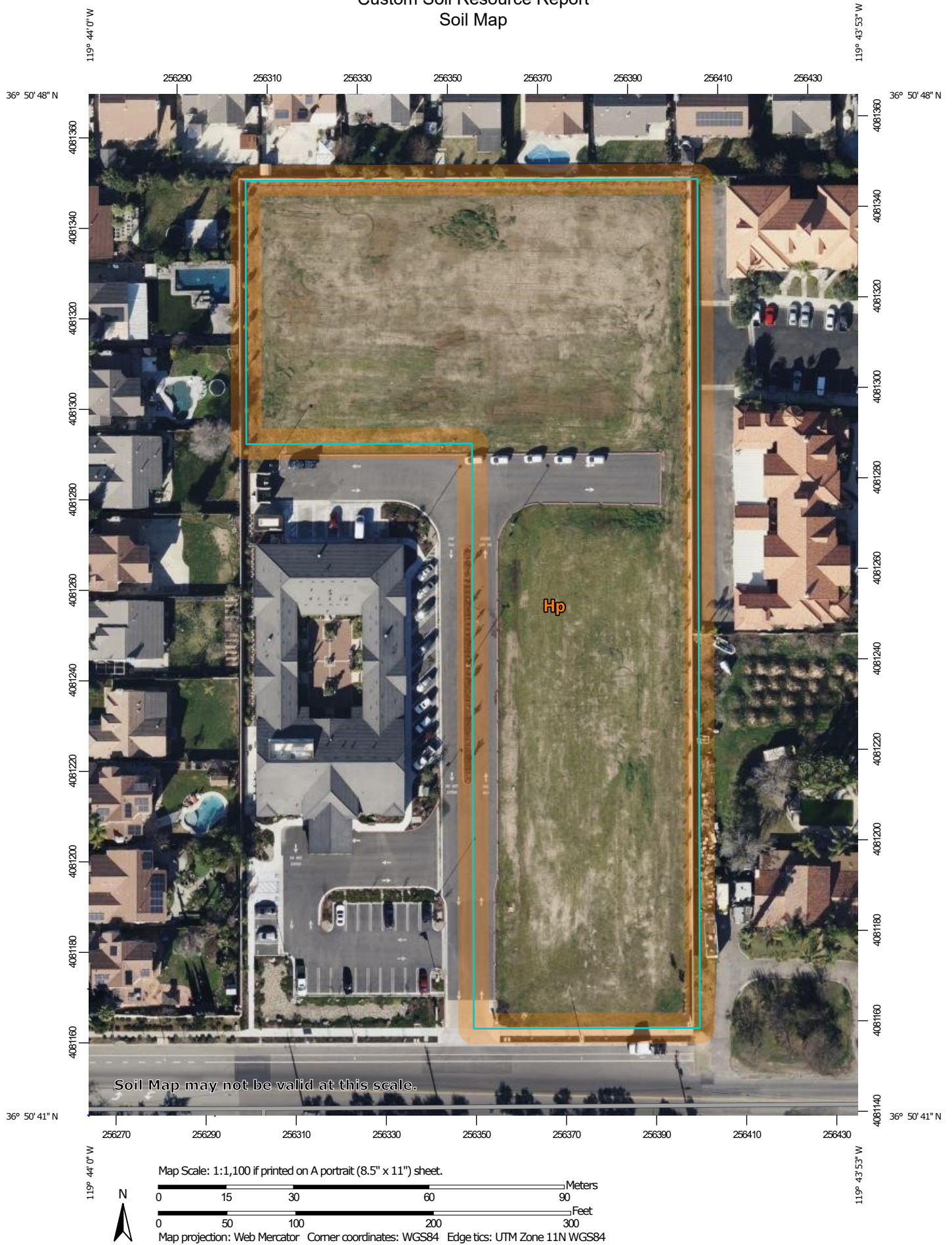
Custom Soil Resource Report

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















Soil Map

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

Custom Soil Resource Report Soil Map



MAP LEGEND

	Area of Interest (AOI)		Spoil Area
	Area of Interest (AOI)		Stony Spot
Soils			Very Stony Spot
	Soil Map Unit Polygons		Wet Spot
	Soil Map Unit Lines		Other
	Soil Map Unit Points		Special Line Features
Special Point Features		Water Features	
	Blowout		Streams and Canals
	Borrow Pit	Transportation	
	Clay Spot		Rails
	Closed Depression		Interstate Highways
	Gravel Pit		US Routes
	Gravelly Spot		Major Roads
	Landfill		Local Roads
	Lava Flow		Background
	Marsh or swamp		Aerial Photography
	Mine or Quarry		
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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

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

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

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 14, Sep 3, 2021

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

Date(s) aerial images were photographed: Jan 21, 2021—Feb 1, 2021

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Hp	Hanford fine sandy loam, clay loam substratum	3.1	100.0%
Totals for Area of Interest		3.1	100.0%

Map Unit Descriptions

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

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

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

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

Custom Soil Resource Report

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

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

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

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

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

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

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

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

Eastern Fresno Area, California

Hp—Hanford fine sandy loam, clay loam substratum

Map Unit Setting

National map unit symbol: hl5s
Elevation: 200 to 500 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

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

Description of Hanford

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

A - 0 to 16 inches: fine sandy loam
C - 16 to 36 inches: fine sandy loam
2C - 36 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Unnamed, loam surface

Percent of map unit: 15 percent
Landform: Alluvial fans
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear
Hydric soil rating: No

References

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

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United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix C: Cultural Resources

City of Fresno

Stallion Development Project

Cultural Resources Information

Central California Information Center, CSU Stanislaus, California Historical Resources Information System: Record Search 22-084, dated March 7, 2022.

- There have been no previous cultural resource studies conducted within the project area.
- There have been seven studies conducted within the one-half mile radius: FR-01006, 01223, 01844, 01880, 01946, 02318, & 02319.
- There are no recorded resources within the project area or within the one-half mile radius, and it is not known if any exist.
- 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.

Native American Heritage Commission (NAHC): Sacred Lands File & Native American Contacts List Request, dated May 9, 2022.

- A Record Search of the NAHC Sacred Lands File was completed for the Area of Potential Effect (APE) with negative results.
- A list of sixteen tribal contacts was provided by NAHC, and letters to each tribal contact listed were mailed out by the City of Fresno on June 24, 2022.
- No additional responses or additional cultural information were received by the City of Fresno.

Assembly Bill 52 Consultation pursuant to Public Resource Code Section 21080.3.1 and California Government Code Sections 65092, 65351, 65352, 65352.3, and 65352.4, formally known as Senate Bill (SB) 18

- A Tribal Consultation Notification Request Letter was sent out by the City of Fresno via certified mail dated June 24, 2022, which included a Project Description, map of the APE and a Topo map.
- No correspondence has been received by the City of Fresno pursuant to the Tribal Consultation Notification Request Letters.

CHRIS – Cultural Record Search Results



To: Jacqueline Lancaster
Provost & Pritchard Consulting Group
400 E. Main St. Ste 300
Visalia, CA 93291

Record Search 22-084

Date: March 7, 2022

Re: Stallion Development & Construction Palms at Alluvial Multifamily Residential Development

County: Fresno

Map(s): Clovis 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP 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.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-QUARTER MILE RADIUS

According to the information in our files, there has been no previous cultural resource studies in the project area. There have been seven studies conducted within the one-half mile radius: FR-01006, 01223, 01844, 01880, 01946, 02318, & 02319.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-QUARTER MILE RADIUS

There are no recorded resources within the project area. There are no recorded resources within the one-half mile 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.

COMMENTS AND RECOMMENDATIONS

We understand this project intends to develop a multifamily residential 28-dwelling unit and associated entitlements. Further, we understand the current land use is vacant with no structures on site. Because none of the project area has been previously studied for cultural resources, it is unknown if any are present. As such, prior to ground disturbance activities, we recommend a qualified, professional consultant conduct a field survey of the project area to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:



Jeremy E David, Assistant Coordinator

Date: March 7, 2022

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

NAHC – Sacred Lands File Search Results



NATIVE AMERICAN HERITAGE COMMISSION

May 9, 2022

Jackie Lancaster
Provost & Pritchard Consulting Group

Via Email to: jlancaster@ppeng.com

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain
Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
**Raymond C.
Hitchcock**
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710

Re: Stallion Development & Construction Multifamily Residential Development Project, Fresno County

Dear Mr. Lancaster:

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

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

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

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

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

**Native American Heritage Commission
Native American Contact List
Fresno County
5/9/2022**

**Big Sandy Rancheria of
Western Mono Indians**

Elizabeth Kipp, Chairperson
P.O. Box 337
Auberry, CA, 93602
Phone: (559) 374 - 0066
Fax: (559) 374-0055
lkipp@bsrnation.com

Western Mono

North Valley Yokuts Tribe

Timothy Perez,
P.O. Box 717
Linden, CA, 95236
Phone: (209) 662 - 2788
huskanam@gmail.com

Costanoan
Northern Valley
Yokut

**Cold Springs Rancheria of
Mono Indians**

Carol Bill, Chairperson
P.O. Box 209
Tollhouse, CA, 93667
Phone: (559) 855 - 5043
Fax: (559) 855-4445
coldsprgstriben@netptc.net

Mono

**Picayune Rancheria of
Chukchansi Indians**

Heather Airey, Tribal Historic
Preservation Officer
P.O. Box 2226
Oakhurst, CA, 93644
Phone: (559) 795 - 5986
hairey@chukchansi-nsn.gov

Foothill Yokut

**Cold Springs Rancheria of
Mono Indians**

Jared Aldern,
P. O. Box 209
Tollhouse, CA, 93667
Phone: (559) 855 - 5043
Fax: (559) 855-4445
csrepa@netptc.net

Mono

**Picayune Rancheria of
Chukchansi Indians**

Claudia Gonzales, Chairwoman
P.O. Box 2226
Oakhurst, CA, 93644
Phone: (559) 412 - 5590
cgonzales@chukchansitribe.net

Foothill Yokut

**Dumna Wo-Wah Tribal
Government**

Robert Ledger, Chairperson
2191 West Pico Ave.
Fresno, CA, 93705
Phone: (559) 540 - 6346
ledgerrobert@ymail.com

Foothill Yokut
Mono

Table Mountain Rancheria

Bob Pennell, Cultural Resource
Director
P.O. Box 410
Friant, CA, 93626
Phone: (559) 325 - 0351
Fax: (559) 325-0394
rpennell@tmr.org

Yokut

**Kings River Choinumni Farm
Tribe**

Stan Alec,
3515 East Fedora Avenue
Fresno, CA, 93726
Phone: (559) 647 - 3227

Foothill Yokut

Table Mountain Rancheria

Brenda Lavell, Chairperson
P.O. Box 410
Friant, CA, 93626
Phone: (559) 822 - 2587
Fax: (559) 822-2693
rpennell@tmr.org

Yokut

North Valley Yokuts Tribe

Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887 - 3415
canutes@verizon.net

Costanoan
Northern Valley
Yokut

Traditional Choinumni Tribe

David Alvarez, Chairperson
2415 E. Houston Avenue
Fresno, CA, 93720
Phone: (559) 217 - 0396
Fax: (559) 292-5057
davealvarez@sbcglobal.net

Foothill Yokut

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 Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Stallion Development & Construction Multifamily Residential Development Project, Fresno County.

**Native American Heritage Commission
Native American Contact List
Fresno County
5/9/2022**

Tule River Indian Tribe

Joey Garfield, Tribal Archaeologist
P. O. Box 589 Yukut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
joey.garfield@tulerivertribe-
nsn.gov

Tule River Indian Tribe

Kerri Vera, Environmental
 Department
 P. O. Box 589
 Porterville, CA, 93258
 Phone: (559) 783 - 8892
 Fax: (559) 783-8932
 kerri.vera@tulerivertribe-nsn.gov

Tule River Indian Tribe

Neil Peyron, Chairperson
P.O. Box 589
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

Wuksache Indian Tribe/Eshom Valley Band

Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. Foothill Yokut
Salinas, CA, 93906 Mono
Phone: (831) 443 - 9702
kwood8934@aol.com

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 Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Stallion Development & Construction Multifamily Residential Development Project, Fresno County.

AB 52 and SB 18 Tribal Consultation

Appendix D: Vehicle Miles Traveled Memo



Fresno COG Vehicle Miles Traveled Analysis Tool Summary Report

Tool Version: Version 1.38 Report Date: 5/18/2022

Project Information

Name: Palms at Alluvial

Jurisdiction: Fresno

TAZ ID: 1495

Project Land Use

Residential	Single-family:	0	DU	Multi-family:	28	DU
	Total:	28	DU	Percent Affordable:	0	%
Non-Residential	Office:	0	EMP	Others:		TSF

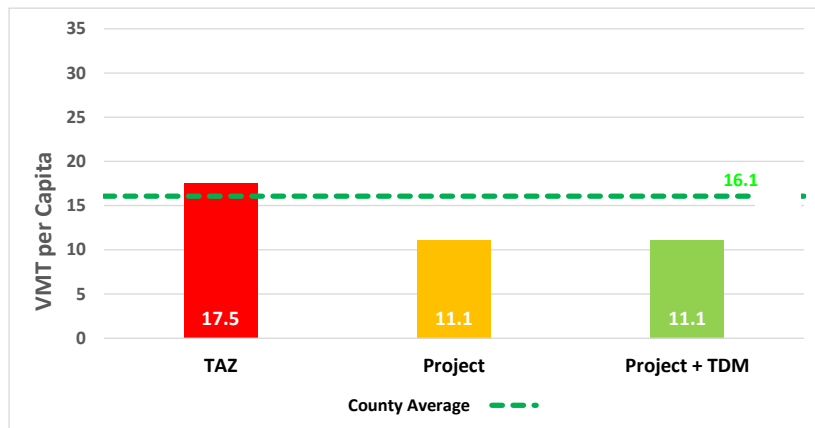
Project TDM measures (VMT reduction strategies)

TDM Strategy	Included in the project	TDM Quantification	% VMT/Capita Reduction	% VMT/Employment Reduction	
Implement Project Specific Vanpool Program	No		N/A		
Implement Project Specific Carpool Program	No			N/A	

Project VMT Results

Residential

Project's VMT/Capita (11.1) is less than County VMT/Capita (14.0 using 13% as threshold)



Project VMT per Capita: 11.1

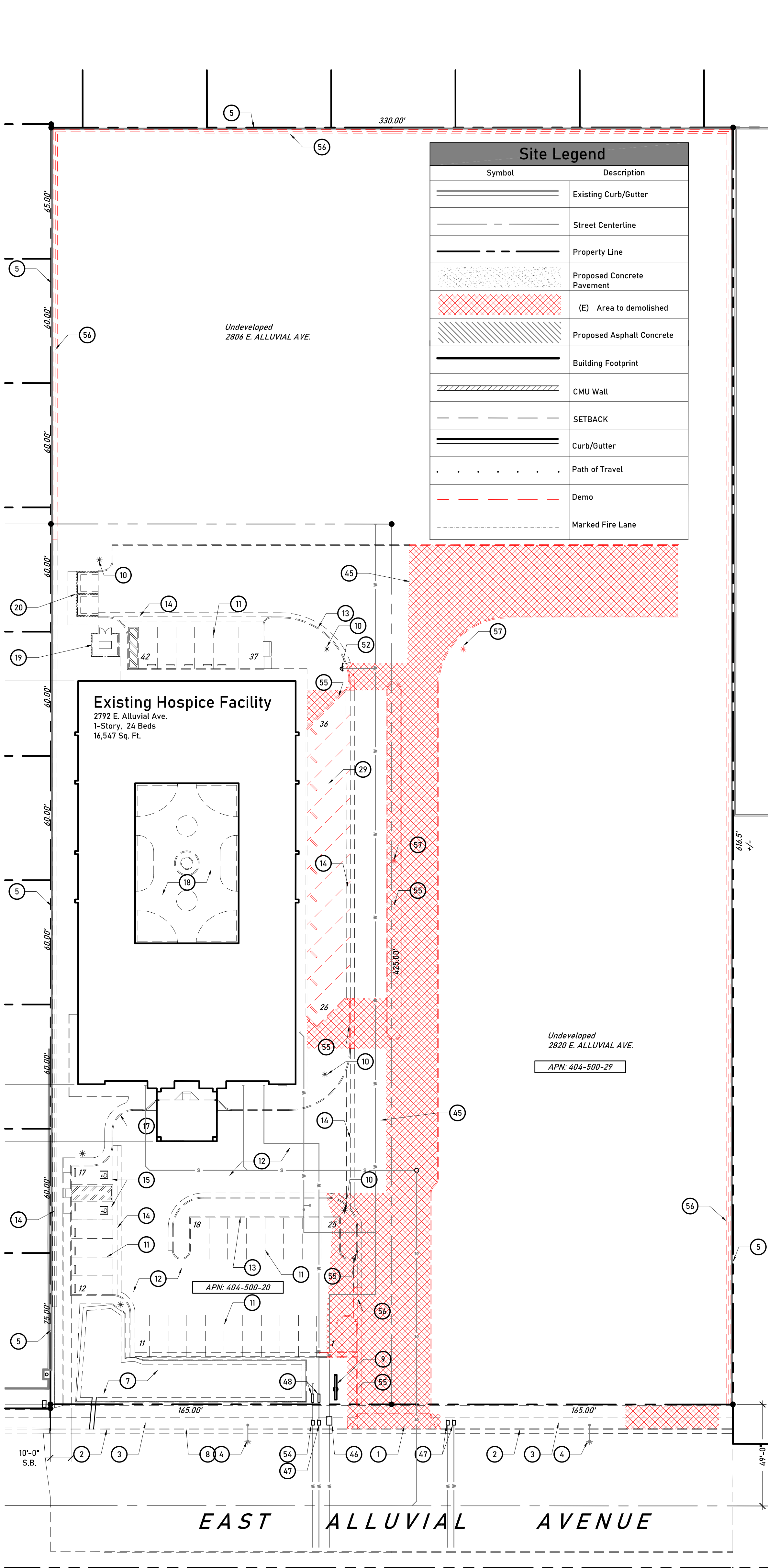
County VMT / Capita: 16.1

Significant Impact: No

Project VMT per Capita with TDM Measures: 11.1

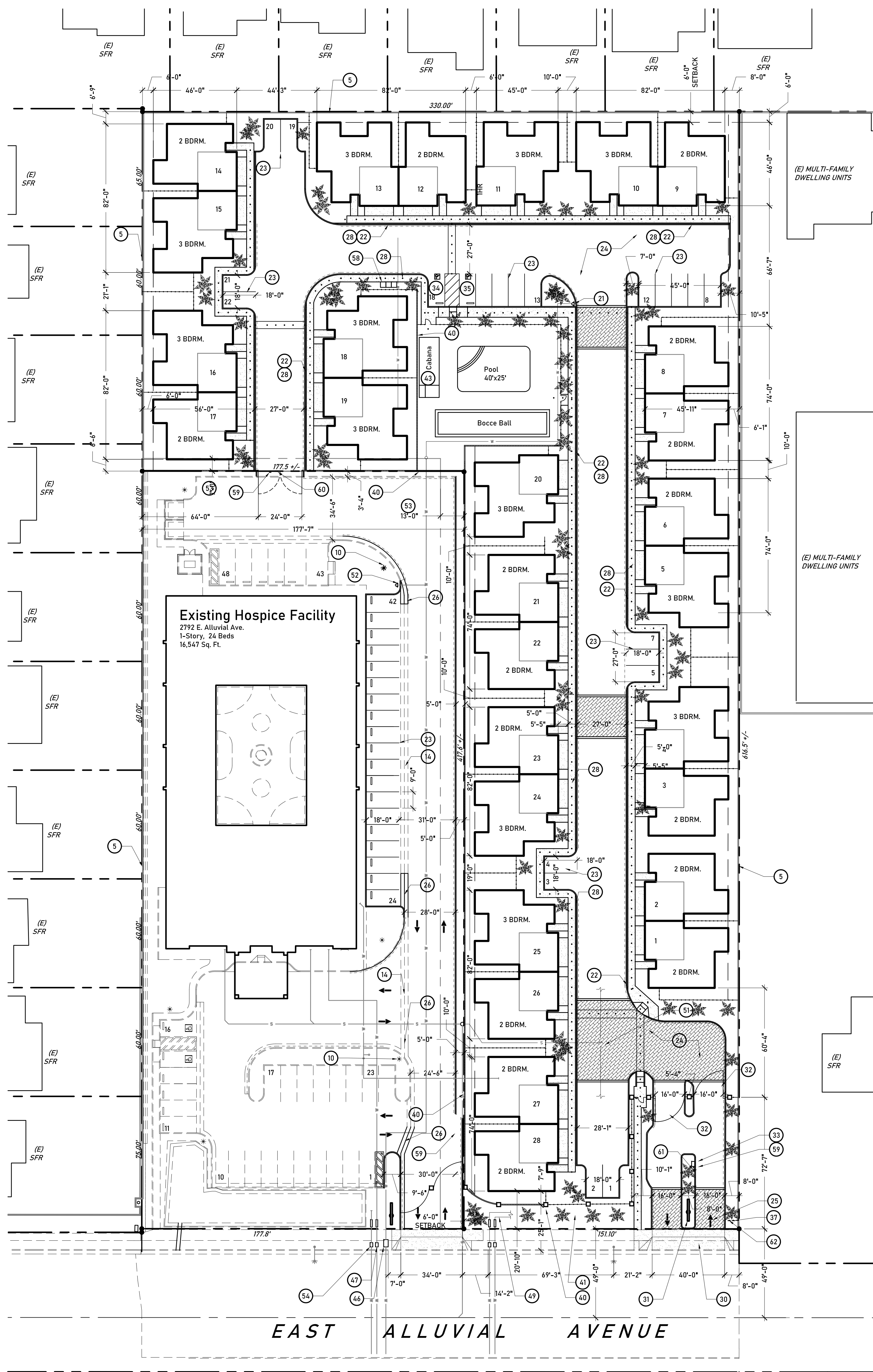
Significant Impact with TDM measures: No

Appendix E: Development Plans



Existing /Demo Site Plan
1" = 30'-0"

Heritage Crossing (Hospice Facility) Parking	
Existing Parking:	42
Proposed Parking:	48



Proposed Site Plan
1" = 30'-0"

The Palms Duplex Parking	
Uncovered:	22
Covered: (All units have 2-car garages)	56
Total:	78

Project Directory	
Developer/General Contractor:	Stallion Development & Construction 811 Barstow Ave Clovis, CA 93612 Ph: (559) 440-9999 info@stallion.net Lic. #1001656
Architect:	Crawford Architecture & Planning 1755 Herndon Ave, Ste 103 Clovis, CA 93611 Ph: (559) 777-7779 nicholas@crawfordap.com Lic. #C-38643

Project Areas*					
Unit Type	Qty.	Living Area	Garage Area	Gross Area	Total Living Area
2b	16	1,024 sq. ft.	440 sq. ft.	1,464 sq. ft.	16,384 sq. ft.
3b	12	1,244 sq. ft.	440 sq. ft.	1,684 sq. ft.	14,928 sq. ft.
Totals	28				31,312 sq. ft.
Area of Property:		128,859 sq. ft. (2.96 ac)		*Approximate Building Areas. Subject to change per final unit plan designs	
Building Coverage:		33.9%			

Keynotes	
Sym	Description
1	Existing 35' drive approach to be relocated & reduced to 30' wide.
2	Existing curb and gutter.
3	Existing city sidewalk.
4	Existing city street light.
5	Existing CMU wall.
6	Existing planter.
7	Existing stormwater retention.
8	Existing stormwater discharge.
9	Existing monument sign.
10	Existing on-site pole light.
11	Existing parking stall striping.
12	Existing paving.
13	Existing 6" concrete curb.
14	Existing concrete valley gutter.
15	Existing accessible parking stall.
16	Existing concrete wheel-stop.
17	Existing concrete sidewalk.
18	Existing courtyard.
19	Existing natural gas generator and enclosure.
20	Existing trash enclosure.
21	New fire hydrant. Connect to existing water line on adjacent property.
22	New 6" concrete rolled curb.
23	New parking stall striping per City of Fresno parking manual.
24	New pavement per City of Fresno standard specifications.
25	New painted directional arrows.
26	New concrete valley gutter.
27	New on-site light pole.
28	New concrete sidewalk. 5% max slope in direction of travel, 2% max cross slope.
29	Existing angle parking to be adjusted for 90 degree parking.
30	New 40' drive approach.
31	New monument sign.
32	New drive access gates with electric motor.
33	New keypad for gate access.
34	New van-accessible parking stall per California Building Code, ADA, and City of Fresno parking manual.
35	New accessible parking stall per California Building Code, ADA, and City of Fresno parking manual.
36	New van-accessible parking stall sign.
37	New accessible parking tow-away sign.
38	New accessible curb ramp and detectable warning strip.
39	New pool.
40	New 7' tall split-face CMU fence.
41	New 36" wide steel gate with security screen, lever and egress hardware. Provide police-fire bypass lock box with XI core per Fresno Fire Department Policy 403.
42	New concrete landing - 2% max slope in any direction.
43	New 9' tall cabana with toilet room and shower.
44	New marked and painted fire lane per Fresno Fire Department standards.
45	Indicates line of existing pavement. Area to be demolished and re-graded to blend with new portion of the site.
46	Existing 8" Detector Check Valve
47	Existing 2" Water Meter (Domestic)
48	Existing 2" RP device.
49	New 2" water loop for domestic water, fire sprinklers (NFPA 13R), and landscape irrigation to each unit. Note: Water loop sizing to be determined; larger services may be necessary if not enough water pressure.
50	Existing Fire Department Connection location.
51	New sewer trunk line to tie into existing sewer trunk line @ adjacent property.
52	Existing fire hydrant location.
53	Relocate existing property line.
54	Existing 2" Water Meter (Irrigation)
55	Demolish portion of existing curb and planter.
56	Demolish existing valley gutter.
57	Remove existing light pole. Salvage for re-use.
58	New cluster mailbox per USPS.
59	Fire XI bypass hardware & click to enter radio frequency gate opening hardware.
60	Emergency Access Only gate sign, both sides of gate.
61	Graphic address directory per development policy G-002.
62	CVC 22658 Fire lane tow away warning sign.

