Wawona Apartments (City of Manteca, CA)

(General Plan Amendment 24-76, Rezone 24-79, Commercial Site Plan Review 24-79, Minor Zone Modification 25-01, and Lot Line Adjustment 24-78)

Initial Study – Mitigated Negative Declaration

Public Review Draft

October 2025

Prepared for:

City of Manteca

1001 W. Center Street

Manteca, CA 95337

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1 INTRODUCTION

Precision Civil Engineering, Inc. (PCE) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of the City of Manteca (City) to address the environmental effects of the proposed Wawona Apartments ("Project" or "proposed Project"). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000*, et. seq*. The City of Manteca is the Lead Agency for this proposed Project. The site and the proposed Project are described in detail in SECTION 2 ENVIRONMENTAL CHECKLIST FORM.

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 proposed 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 mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur 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 five (5) sections plus appendices. SECTION 1 INTRODUCTION provides the basis of the IS/MND's regulatory information and an overview of the Project. SECTION 2 ENVIRONMENTAL CHECKLIST FORM provides a detailed description of Project components. SECTION 3 DETERMINATION concludes that based on the Initial Study, a mitigated negative declaration will be prepared, identifies the environmental factors potentially affected based on the analyses contained in this IS, and includes with the Lead Agency's determination based upon those analyses. SECTION 4 EVALUATION OF ENVIRONMENTAL IMPACTS presents the CEQA checklist and environmental analyses for all impact areas and the mandatory findings of significance. A brief discussion of the reasons why the Project impact is anticipated to be potentially significant, less than significant with mitigation incorporated, less than significant, or why no impacts are expected is included. SECTION 5 MITIGATION

MONITORING AND REPORTING PROGRAM presents the mitigation measures recommended in the IS/MND for the Project. The CalEEMod Results (Appendix A), CNDDB Occurrence Report (Appendix B), CHRIS Search Record (Appendix C), NAHC Correspondence (Appendix D), Acoustical Analysis (Appendix E), and Local Transportation Analysis (Appendix F) are provided at the end of this document.

2 ENVIRONMENTAL CHECKLIST FORM

This section describes the components of the proposed Project in more detail, including Project location, Project objectives, and required Project approvals.

2.1 Project Title

Wawona Apartments (General Plan Amendment (GPA) 24-76, Rezone (REZ) 24-79, Commercial Site Plan Review (SPA) 24-79, Minor Zone Modification (MZM) 25-01, and Lot Line Adjustment (LLA) 24-78)

2.2 Lead Agency Name and Address

City of Manteca
1001 W. Center Street
Manteca, CA 95337

2.3 Contact Person and Phone Number

Lead Agency
City of Manteca
Development Services Department
Planning Division
Toben Barnum, Associate Planner
(209) 456-8517

Applicant
Angraj and Baltej Chahal
1897 Oleander Avenue
Manteca, CA 95337
(209) 275-0316

2.4 Study Prepared By

Precision Civil Engineering
1234 O Street
Fresno, CA 93721
(559) 449-4500

2.5 Project Location

The Project Site is located in the City of Manteca, San Joaquin County, California. The area is located on the north side of Wawona Street between Airport Way and Fishback Road (Figure 2-1), consisting of three (3) parcels that total approximately 1.67 acres (Figure 2-2). The area is identified by the San Joaquin County Assessor as Assessor's Parcel Numbers (APNs) 222-100-15 (0.20 acres), 222-100-14 (0.22 acres), and 222-100-09 (1.25 acres). The site is a portion of Section 06, Township 2 South, Range 7 East, Mount Diablo Base and Meridian.

2.6 Latitude and Longitude

The centroid of the Project Area is 37.79069, -121.25047.

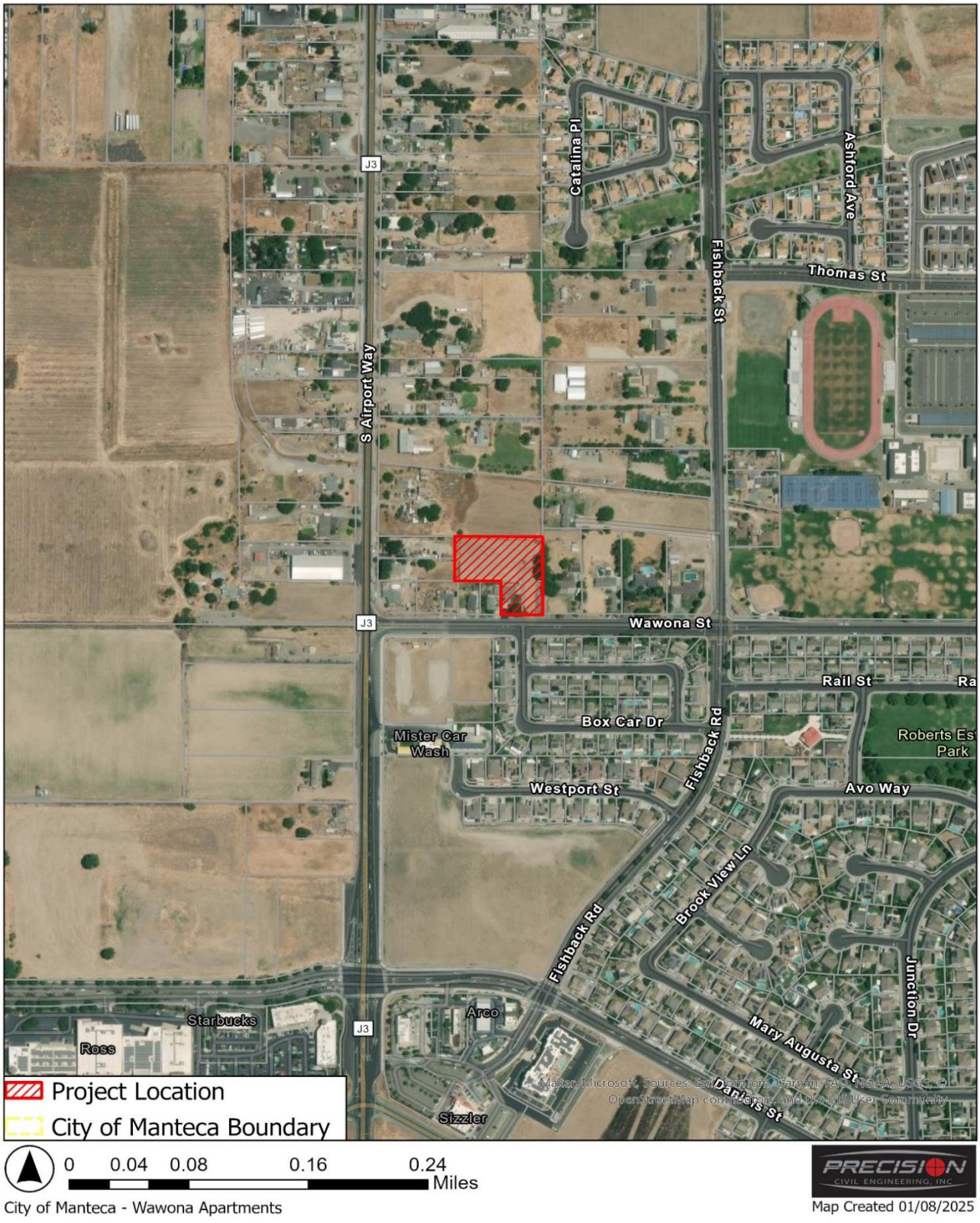

Figure 2-1 Wawona Apartments Project Location

Figure 2-2 Wawona Apartments Project Aerial

2.7 General Plan Designation

The Project site has a City of Manteca General Plan planned land use designation of Very Low Density Residential (VLDR). According to the City of Manteca General Plan, the VLDR land use designation "provides for residences on larger lots and small, quasi-agricultural activities, including raising and boarding livestock. Clustering is encouraged to allow continuation of agricultural uses or to provide common amenities for the development." This land use designation supports a maximum of two (2) dwelling units per acre.

2.8 Zoning

The Project Site has zoning designations of R-E (Residential Estate) and CG (General Commercial) (Figure 2-4). According to the Manteca Zoning Ordinance (Title 17 of the Manteca Municipal Code, or MMC) the R-E district "allows for large lots and flexible placement of single-family detached housing. Uses include quasi-agricultural activities, including raising and boarding livestock. The agricultural use areas that remain on the residential parcel shall be subject to an easement dedicated to the City that allows continued agricultural use but prohibits any further nonagricultural-related development." According to the Zoning Ordinance, the CG district allows for "whole-sale, warehousing, and heavy commercial uses, highway-oriented commercial retail, public and quasi-public uses, and similar and compatible uses. The designation is also intended to accommodate visitor lodging, commercial recreation and public gathering facilities, such as amphitheaters, or public gardens. It also allows most neighborhood and mixed commercial uses."

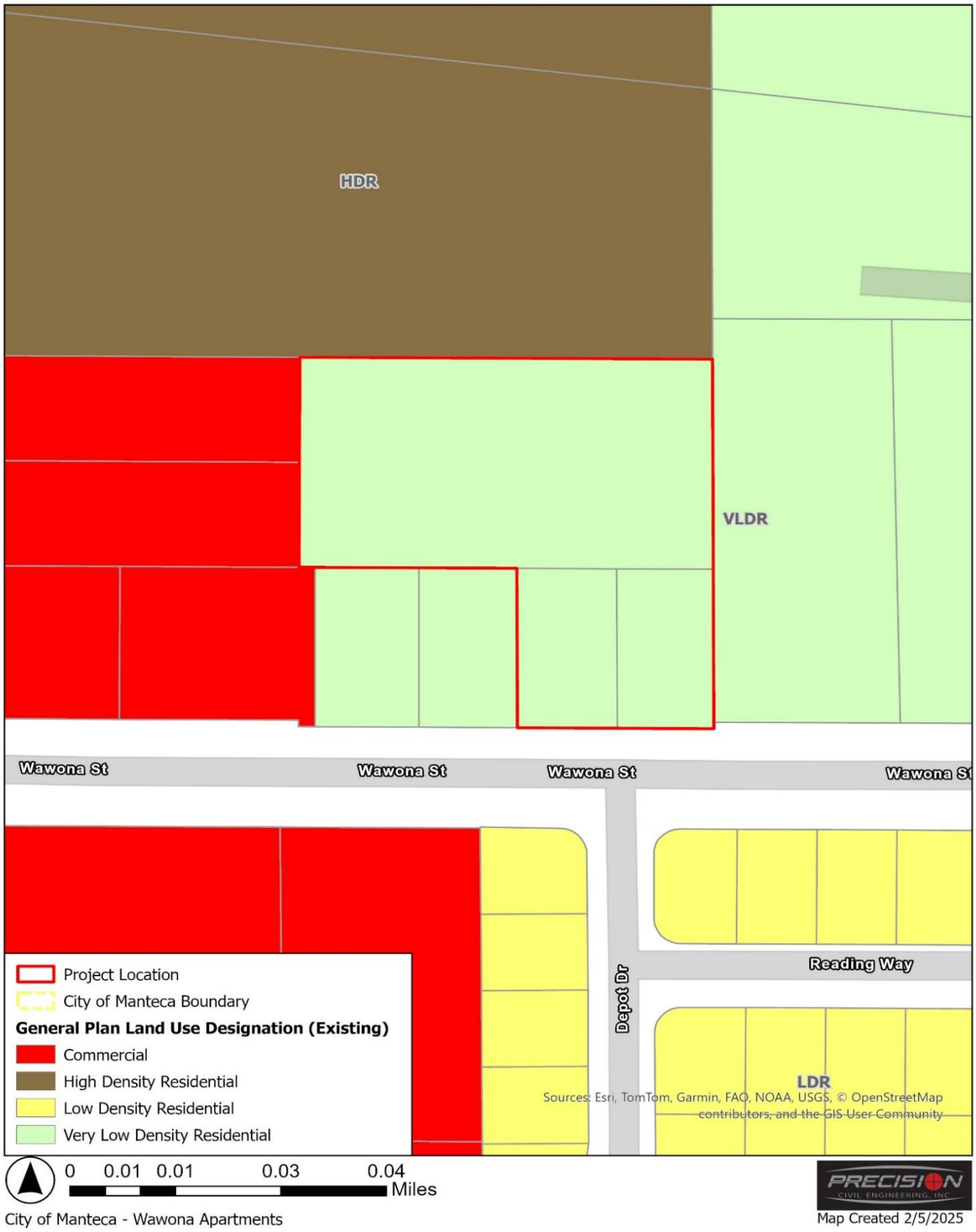

Figure 2-3 General Plan Land Use Designation Map (Existing)

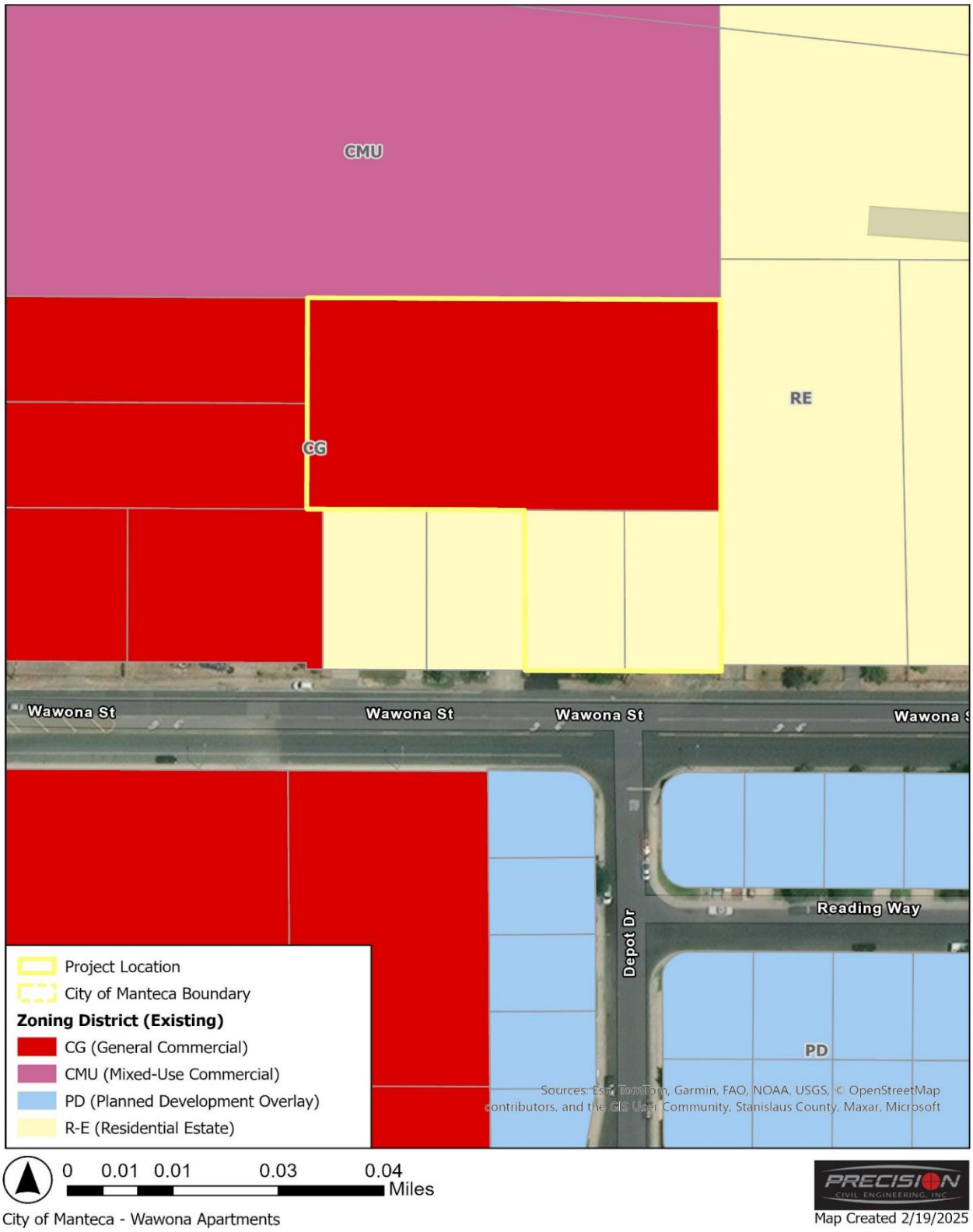

Figure 2-4 Zoning District Map (Existing)

2.9 Description of Project

MCR Engineering (Applicant) on behalf of Angraj and Baltej Chahal (Owner/Developer) requests General Plan Amendment (GPA) 24-76, Rezone (REZ) 24-79, Commercial Site Plan Review (SPA) 24-79, Minor Zone Modification (MZM) 25-01, and Lot Line Adjustment (LLA) 24-78 to facilitate the development of a 44-unit multi-family residential development and related on/off-site improvements (e.g., parking, landscaping, curb, gutter, and sidewalk, etc.).

GPA 24-76 proposes to amend the General Plan land use designation for the Project site from VLDR (Very Low Density Residential) to HDR (High Density Residential). According to the Manteca General Plan, the HDR land use designation allows for "multi-family townhome, condominium, and apartment style housing and mobile home parks" with access to arterial streets, pedestrian and bikeway networks, and public transportation corridors. The HDR designation allows for densities between 20.1 and 30 dwelling units per acre. The Project proposes a 44-unit multi-family residential development which is a use allowed within the proposed designation. The Project would result in a density of 26.3 dwelling units per acre which is within the allowable densities for the proposed land use designation.

REZ 24-79 proposes to amend the zoning designation for the site from CG (General Commercial) and R-E (Residential Estate) to R-3 (Multiple-Family Dwelling). The proposed zoning designation of R-3 is consistent with the proposed General Plan land use designation of HDR. According to the MMC, the R-3 zone district is intended for multi-family apartment style housing with access to arterial streets, pedestrian and bike networks, and other transit options. The R-3 zoning district allows for densities between 15.1 and 25.0 dwelling units per acre. The Project proposes a 44-unit multi-family residential development which is an allowed use type within the proposed zoning designation.

SPA 24-79 would facilitate the development of the 44-unit multi-family residential development including site layout, pedestrian access, vehicle circulation, landscaping, utilities, and stormwater management, in accordance with the City's design guidelines and development standards.

MZM 25-01 would allow for a reduction in the required landscape buffer along the western and southern property lines to a nine (9) foot minimum rather than a 10-foot minimum.

LLA 2024-78 proposes a merger of the three (3) parcels, APNs 222-100-09 (1.25 acres), 222-100-14 (0.22 acres), and 222-100-15 (0.20 acres), into one (1) parcel that totals approximately 1.67 acres.

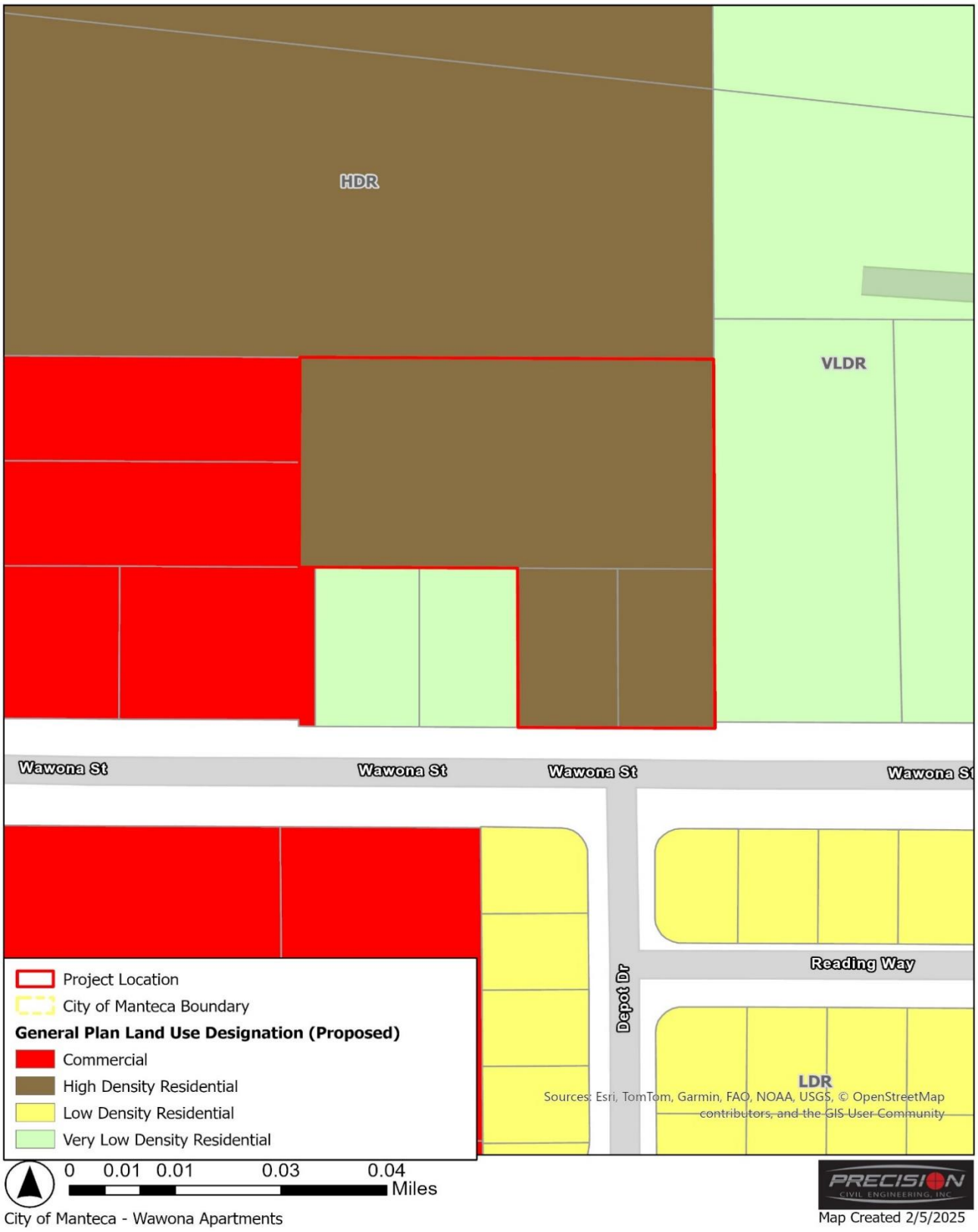

Figure 2-5 General Plan Land Use Designation Map (Proposed)

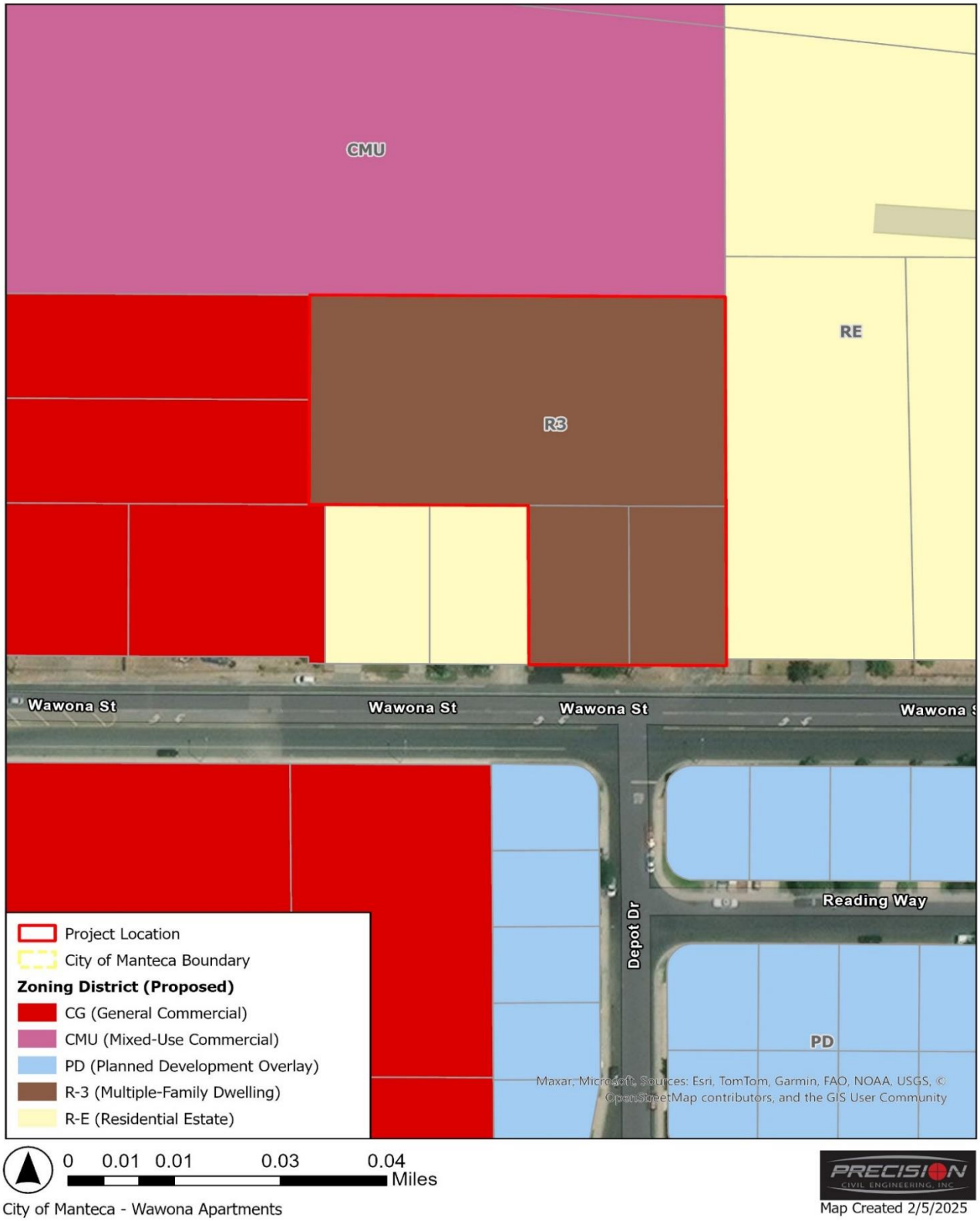

Figure 2-6 Zoning District Map (Proposed)

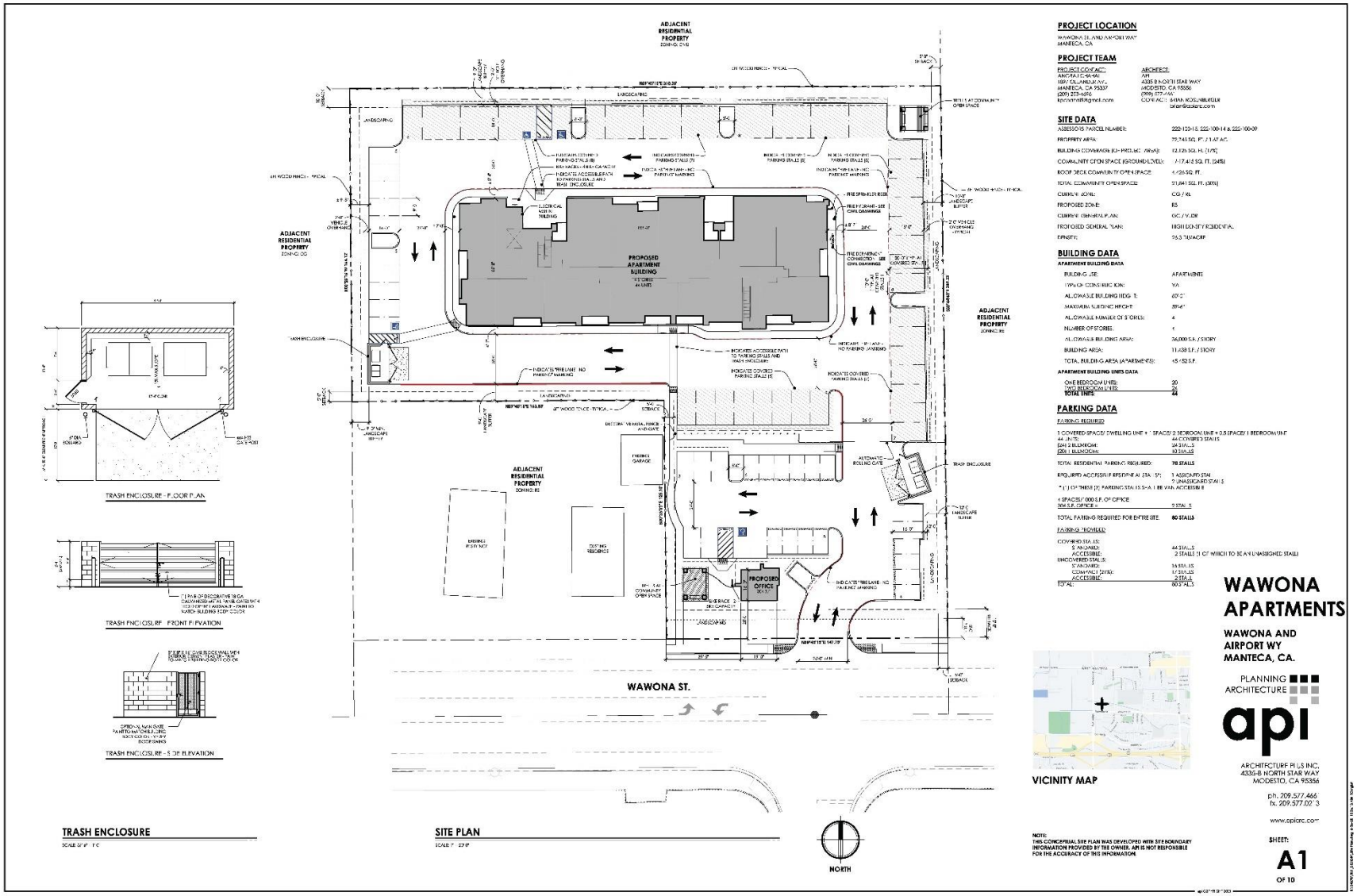

Figure 2-7 Project Site Plan

2.10 Project Setting and Surrounding Land Uses

Project Setting

The Project site is mostly vacant. A single-family residential dwelling currently occupies one of the lots (APN 222-100-14). The other two lots (APNs 222-100-09 and 222-100-15) are currently vacant. According to historical aerial imagery, APN 222-100-09 has been vacant for several decades and appears to be regularly disced for vegetation control. Additionally, APN 222-100-15 had historically been occupied by a single-family residential structure up through the year 2011 when the structure was demolished. The lot has sat vacant since.

The Project site is relatively flat with a Tinnin loamy coarse sand soil type that is well drained with a depth to water table of more than 80 inches. The existing biotic conditions and resources of the vacant parcels can be defined primarily as ruderal and are highly disturbed. Development of the Project site would require the removal of several trees and shrubs associated with the single-family residence (APN 222-100-14).

Surrounding Land Uses

As referenced in Table 2-1, the Project Site is surrounded by residential uses to the north, south, east, and west. The properties to the north, currently occupied by very low-density residential uses, are planned and zoned for High Density Residential and Commercial Mixed Use, respectively. The properties to the west, currently occupied by very low-density residential uses, are zoned for commercial use.

Table 2-1 Existing Uses, General Plan Designations, and Zoning Districts of Surrounding Properties

Direction from the Project Site	Existing Land Use	Planned Land Use	Zoning District
North	Very-Low Density Residential	HDR (High Density Residential)	CMU (Mixed Use Commercial)
South	Single-family residences	LDR (Low Density Residential) / C (Commercial)	R-1 (One-Family Dwelling)
East	Single-family residences	C (Commercial)	CG (General Commercial)
West	Single-family residences	VLDR (Very Low Density Residential)	R-E (Residential Estate)

2.11 Site Preparation

Site preparation would include removal/demolition of all on-site trees and existing structures/improvements followed by typical grading activities and minor excavation for installation of utility infrastructure for conveyance of water, sewer, stormwater, and irrigation. Demolition, site preparation, building, grading, encroachment, and site utilities permits would be subject to review and approval by the appropriate agency and/or department to ensure compliance with applicable codes and regulations. Compliance would be verified through the building permit and inspection process.

2.12 Project Construction and Phasing

The proposed Project is expected to be constructed in one (1) phase.

2.13 Project Components

This section describes the overall components of the Project, such as the proposed buildings, landscaping, vehicle and pedestrian circulation, and utilities.

Site Layout and Elevations

As shown in Figure 2-7, the Project proposes the construction of a 44-unit multi-family residential development that consists of one (1) residential building, one management office, 80 parking stalls, and associated site amenities. The residential building has an area of 11,999 square feet (sf.) per story, with a total building area of 48,093 sf. The proposed office is approximately 304 sf.

Within the residential building, there are four (4) unit types, "Unit A", "Unit B", "Unit C", and "Unit D". Unit A is 832 sf., one bedroom, one bathroom unit; Unit B is 774 sf., one bedroom, one bathroom unit; Unit C is a 991 sf. two-bedroom, two-bathroom unit; and Unit D is a 1038 sf. two-bedroom, two-bathroom unit. Floor plans for each unit type are shown in Figure 2-8. The floor plan for the first story is shown in Figure 2-9. The 2nd, 3rd, and 4th floor plans are shown in Figure 2-10.

Conceptual elevations for the apartment building and office are shown in Figure 2-11, Figure 2-12, and Figure 2-13. As shown, the proposed residential building is a four-story building that would reach a maximum height of 59 feet, six (6) inches. The proposed office building is a single story and would reach a maximum height of 17 feet. The proposed buildings share a similar architecture, characterized by consistent design elements such as the use of parapets and similar façade materials and stylistic features.

A six (6)-foot-high wooden fence is proposed at the property lines in the interior of the site.

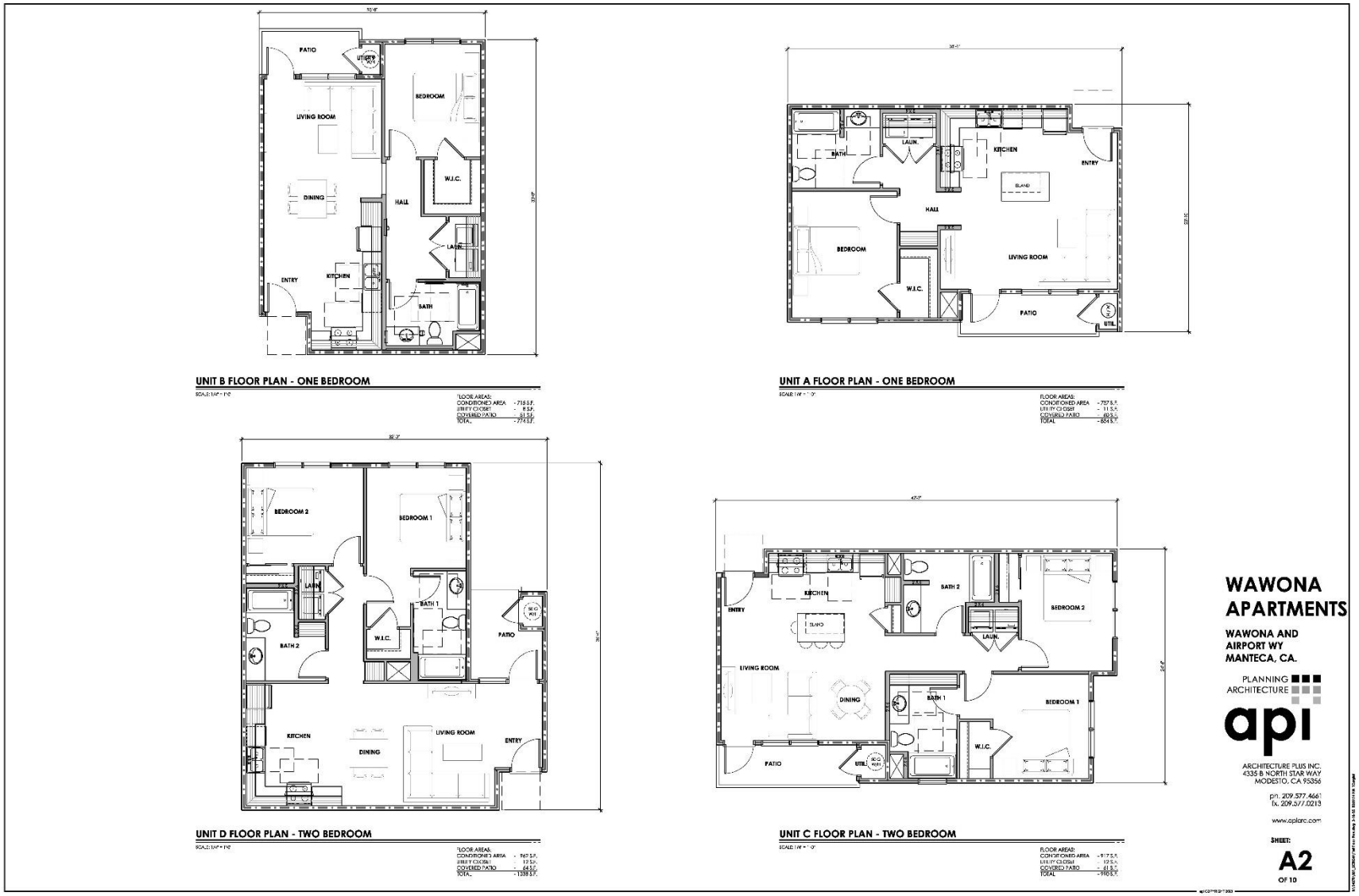

Figure 2-8 Unit Floor Plans

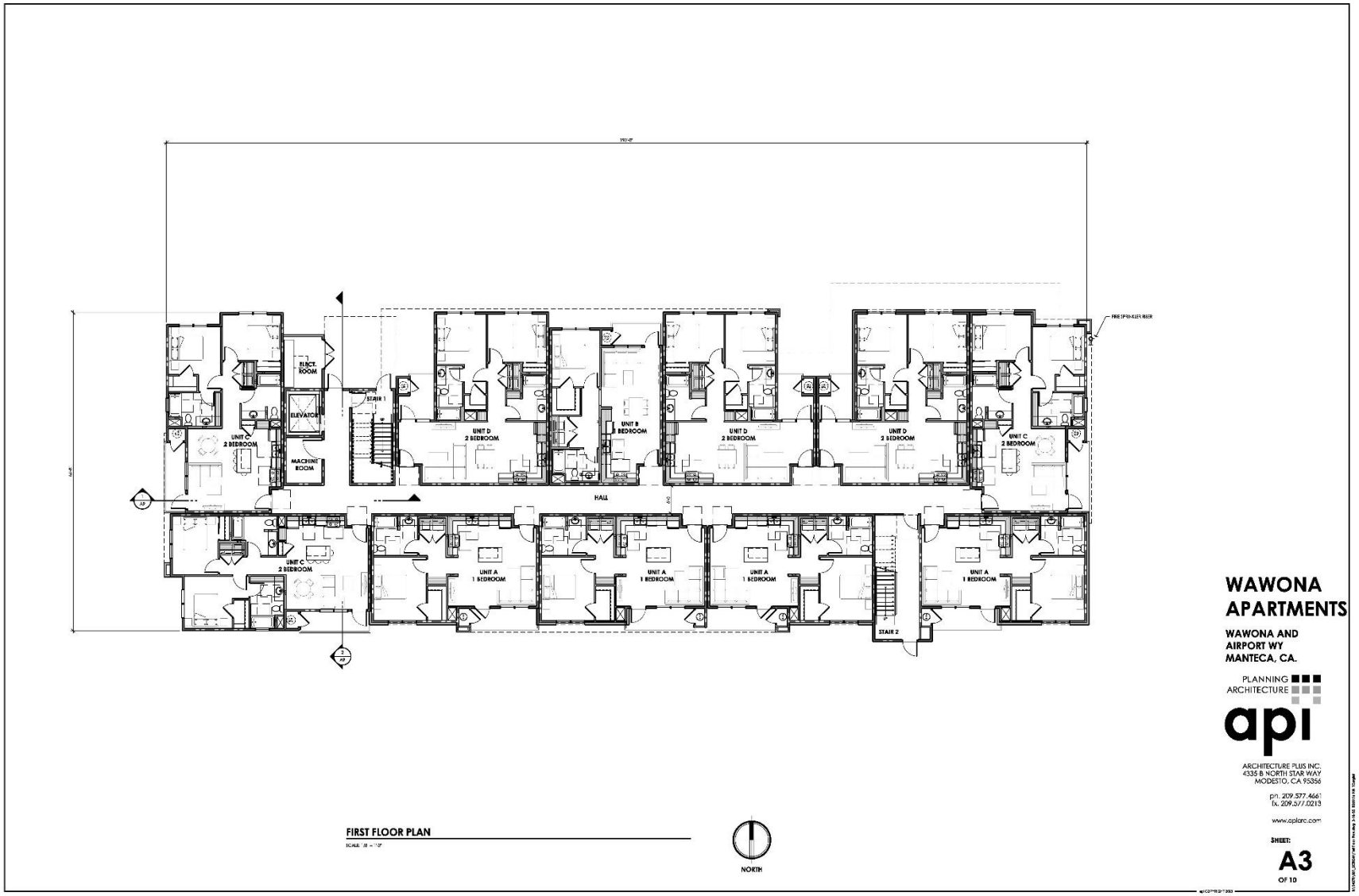

Figure 2-9 First Floor Plan

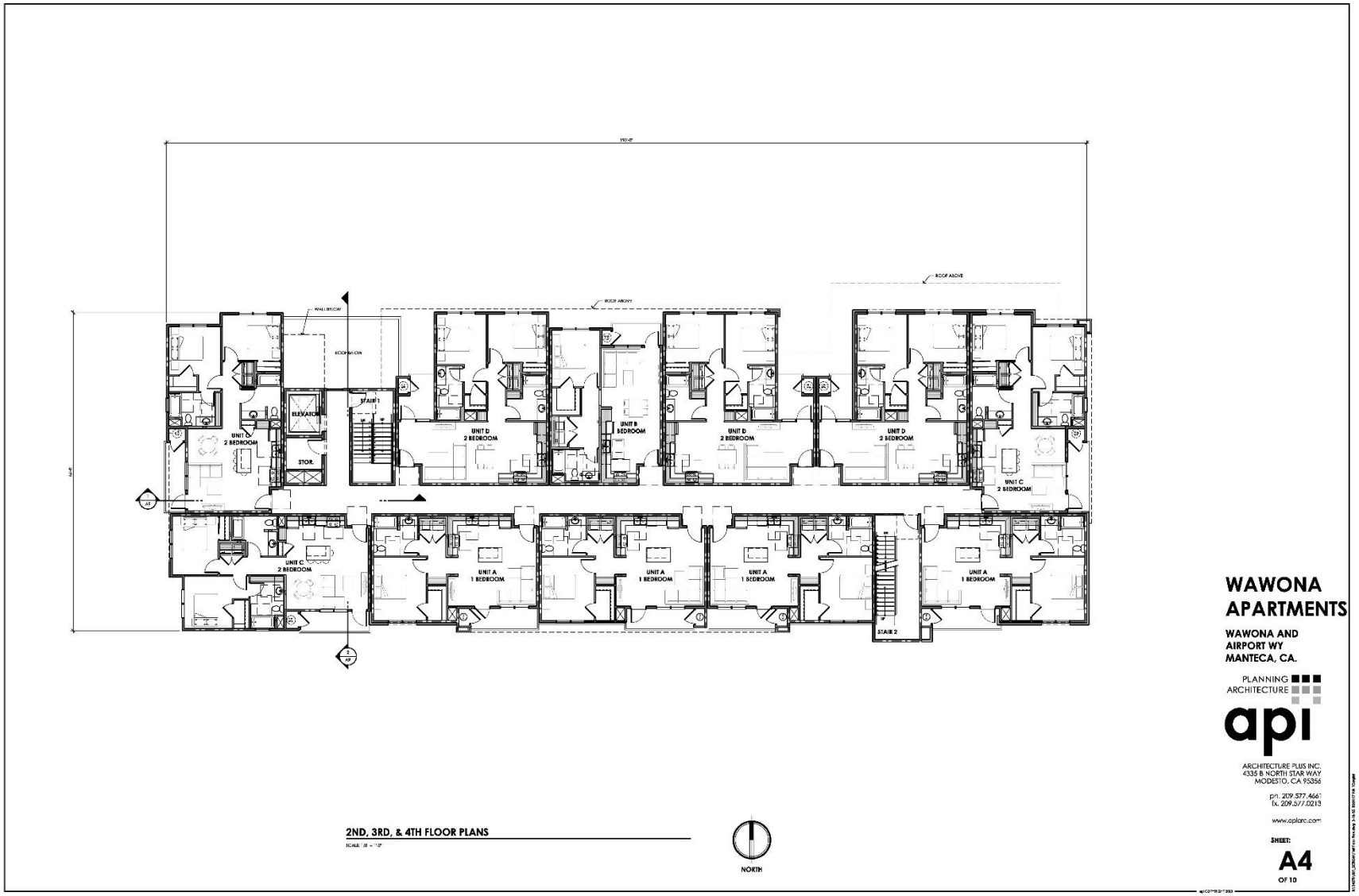

Figure 2-10 2nd, 3rd, and 4th Floor Plan

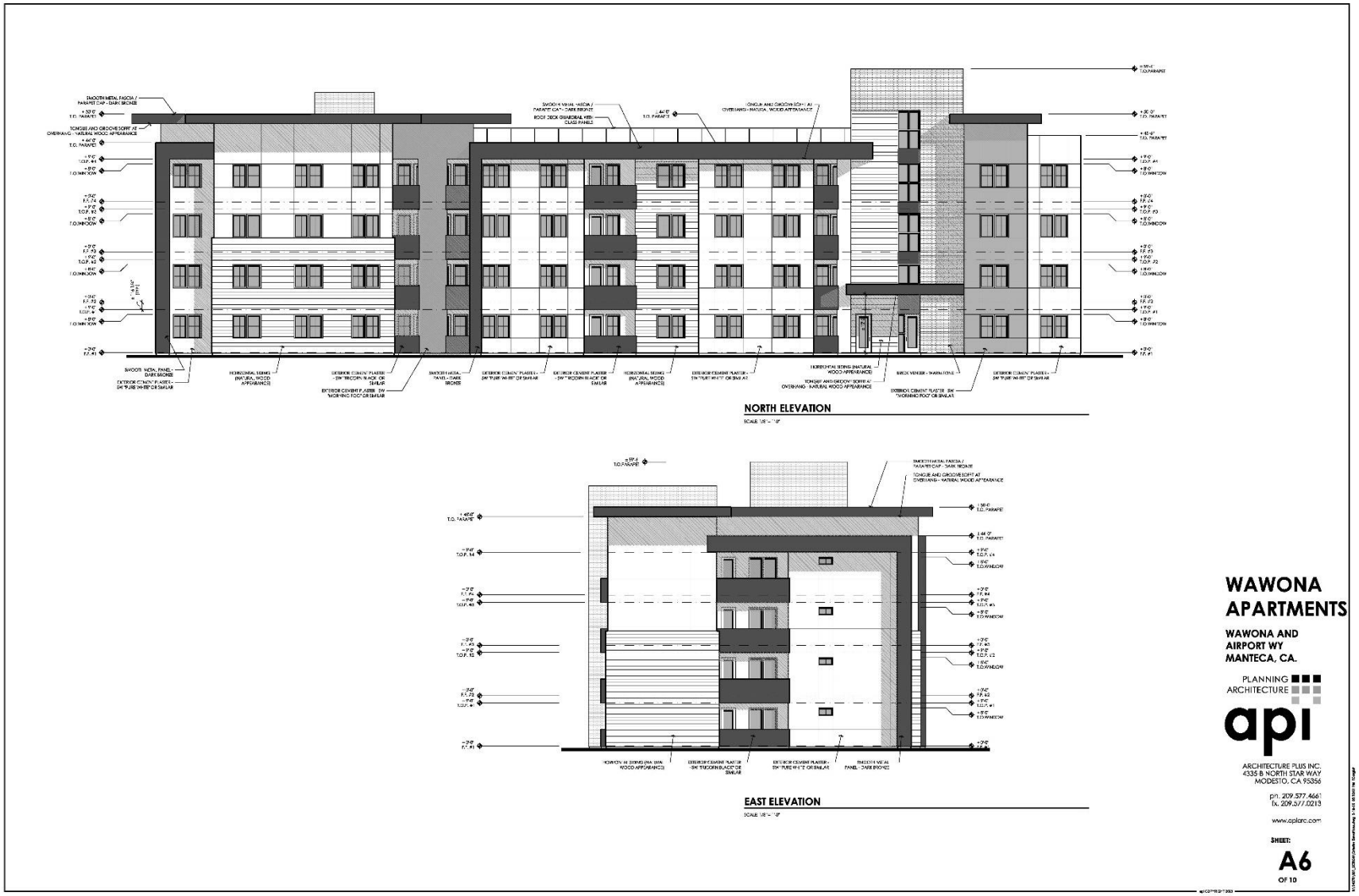

Figure 2-11 North and East Elevations

Figure 2-12 South and West Elevations

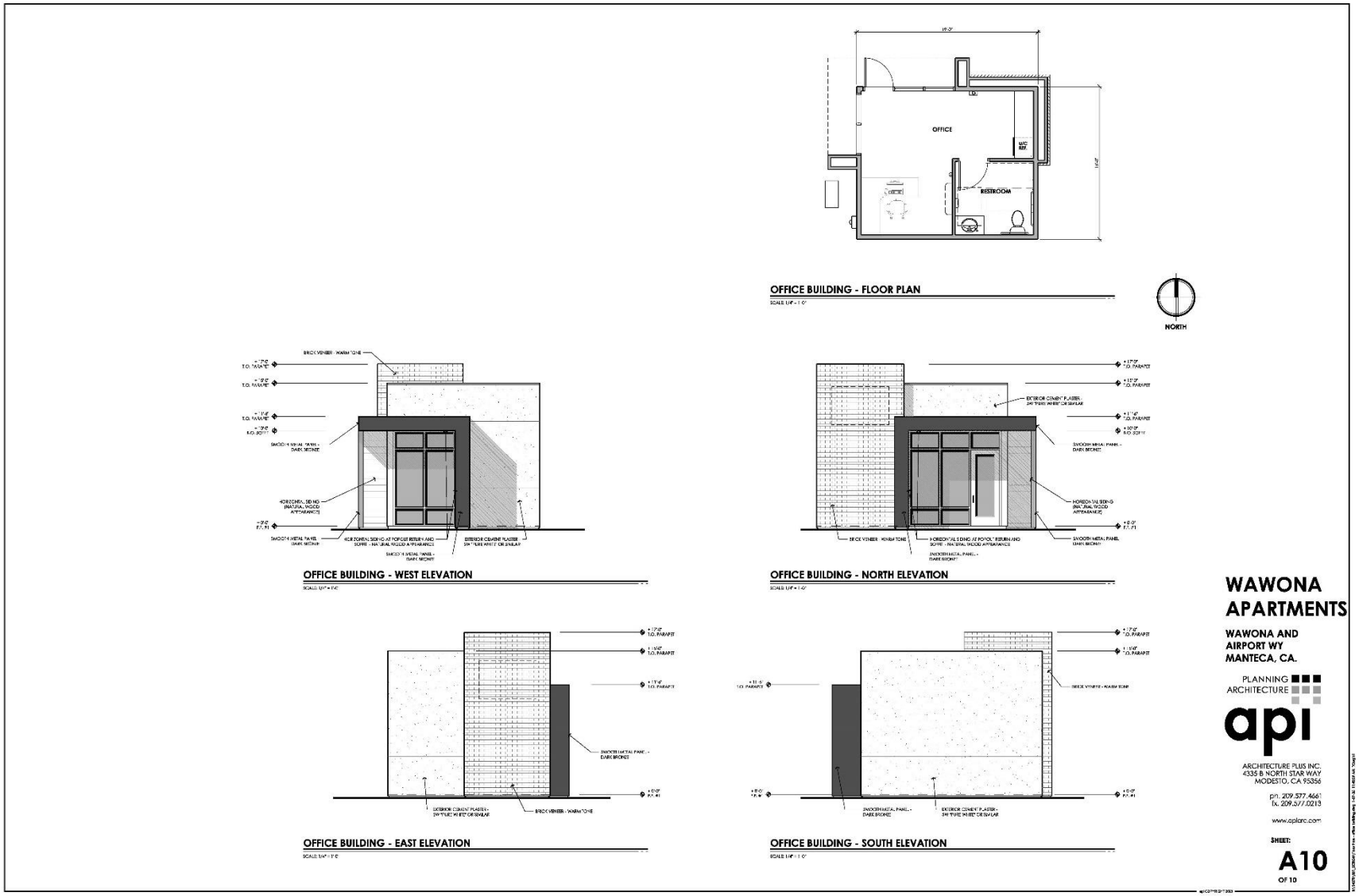

Figure 2-13 Office Building Elevations and Floor Plan

Building and Site Design Features

The Project would be built in compliance with all mandatory requirements for multi-family buildings as outlined in the 2022 Energy Code. Mandatory requirements apply to building ventilation and indoor air quality, space conditioning systems, water heating systems, electric power distribution, and electric ready buildings.

The Project would be built in accordance with all mandatory indoor water use requirements as outlined in the 2022 California Green Buildings Standards Code, Title 24, Part 11, Section 4.303 – Indoor Water Use and verified through the building permit process. As a residential development that contains plumbing fixtures and fittings, the Project shall comply with water-conserving measures for water closets, urinals, showerheads, and faucets. In addition, as a multi-family residential development, the Project would be required to install submeters to measure water usage of individual units in accordance with the California Plumbing Code.

The Project would also be built in accordance with all mandatory outdoor water use requirements as outlined in the 2022 California Green Building Standards Code, Title 24, Part 11, Section 4.304 – Outdoor Water Use and verified through the building permit process. As a residential development that contains landscaping including trees, shrubs, groundcover/annual plants, and lawn, the Project shall comply with the updated Model Water Efficient Landscape Ordinance (MWELO) (California Code of Regulations, Title 23, Chapter 2.7, Division 2) as implemented and enforced through the building permit process.

Site Circulation and Parking

The site would be accessible via one (1) point of ingress/egress on Wawona Street. A portion of the site would be open access. A gated entry is proposed to limit access to the apartment building. A pedestrian-accessible gate would be provided adjacent to the gated entry. Internal circulation of the site would include a private drive aisle for automobiles and concrete sidewalks for pedestrians. The Project proposes 80 parking spaces including 44 covered spaces, two (2) covered accessible spaces, and two (2) additional accessible spaces, in addition to two (2) bike rack areas with space for six (6) bicycles. The Project would be built in compliance with the 2022 California Green Buildings Standards Code for electric vehicle charging. The Project would also install right-of-way improvements along Wawona Street frontage (i.e., concrete curb, gutter, sidewalk, and paving per City of Manteca standards). An inside/outside turning radius is also proposed according to the City of Manteca standards for fire and solid waste vehicle access.

Open Space and Landscaping

Proposed open space is depicted in Figure 2-7 and Figure 2-14

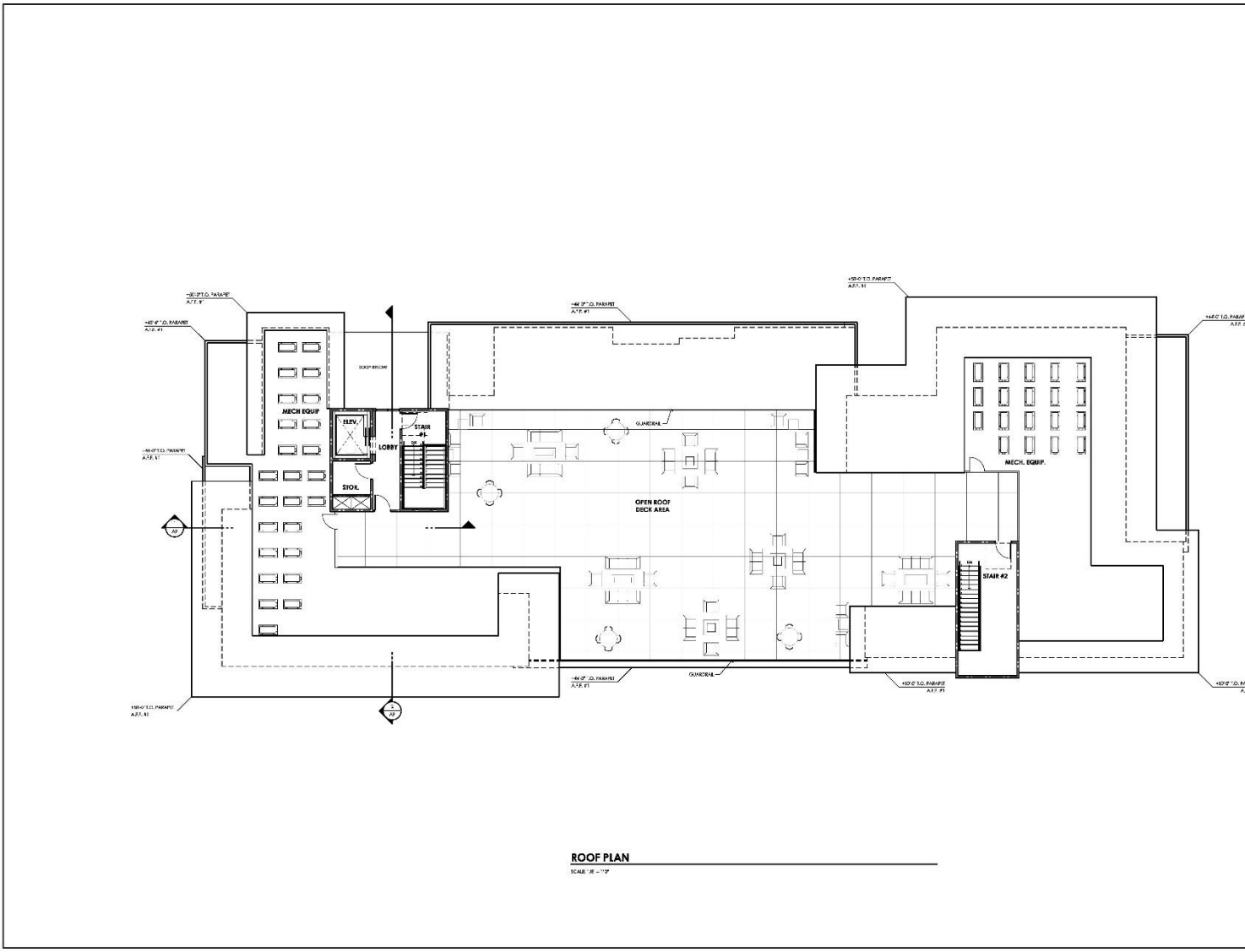

Figure 2-14. As shown in Figure 2-7, the Project proposes a total of 21,830 sf. of community open space which includes approximately 17,404 sf. of ground level open space and 4,426 sf. provided by the open roof deck.

Proposed landscaping is depicted in Figure 2-15

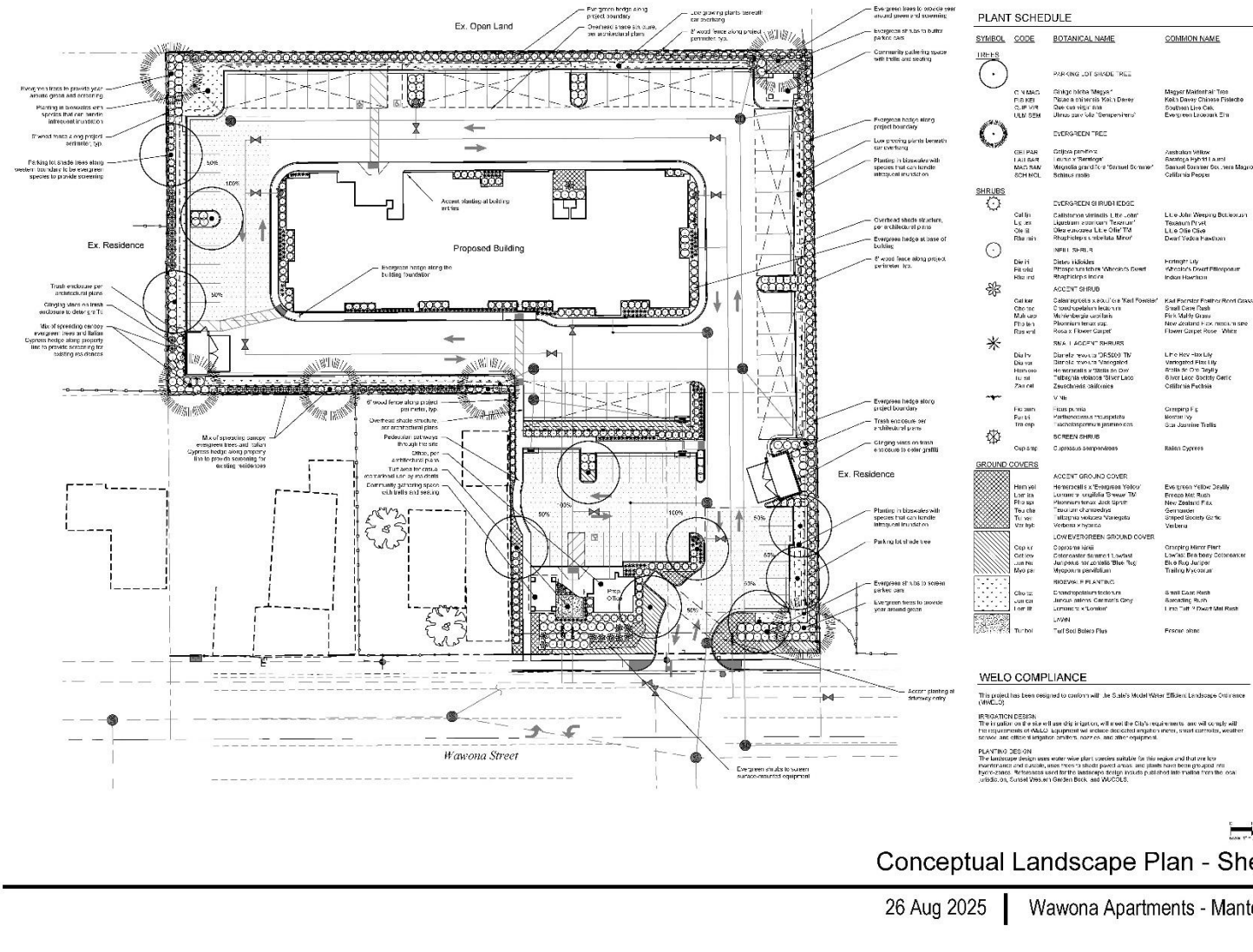

Figure 2-15. Trees, shrubs, ground cover/annuals including, but not limited to, Southern Live Oak, Australian Willow, Texanum Privet, Fortnight Lily, Small Cape Rush, Boston Ivy, and lawn are proposed throughout the interior and perimeter of the site.

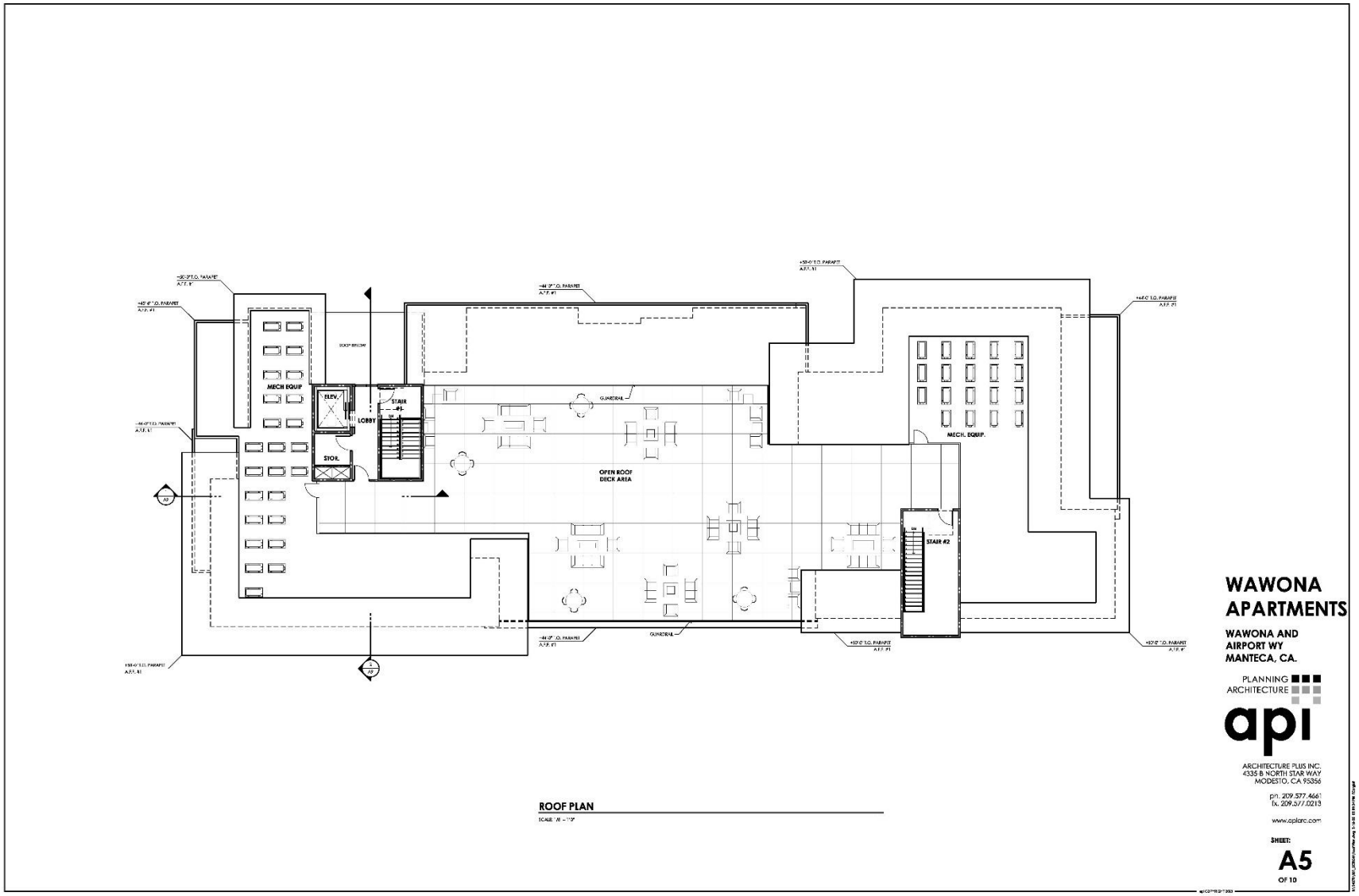

Figure 2-14 Open Roof Deck

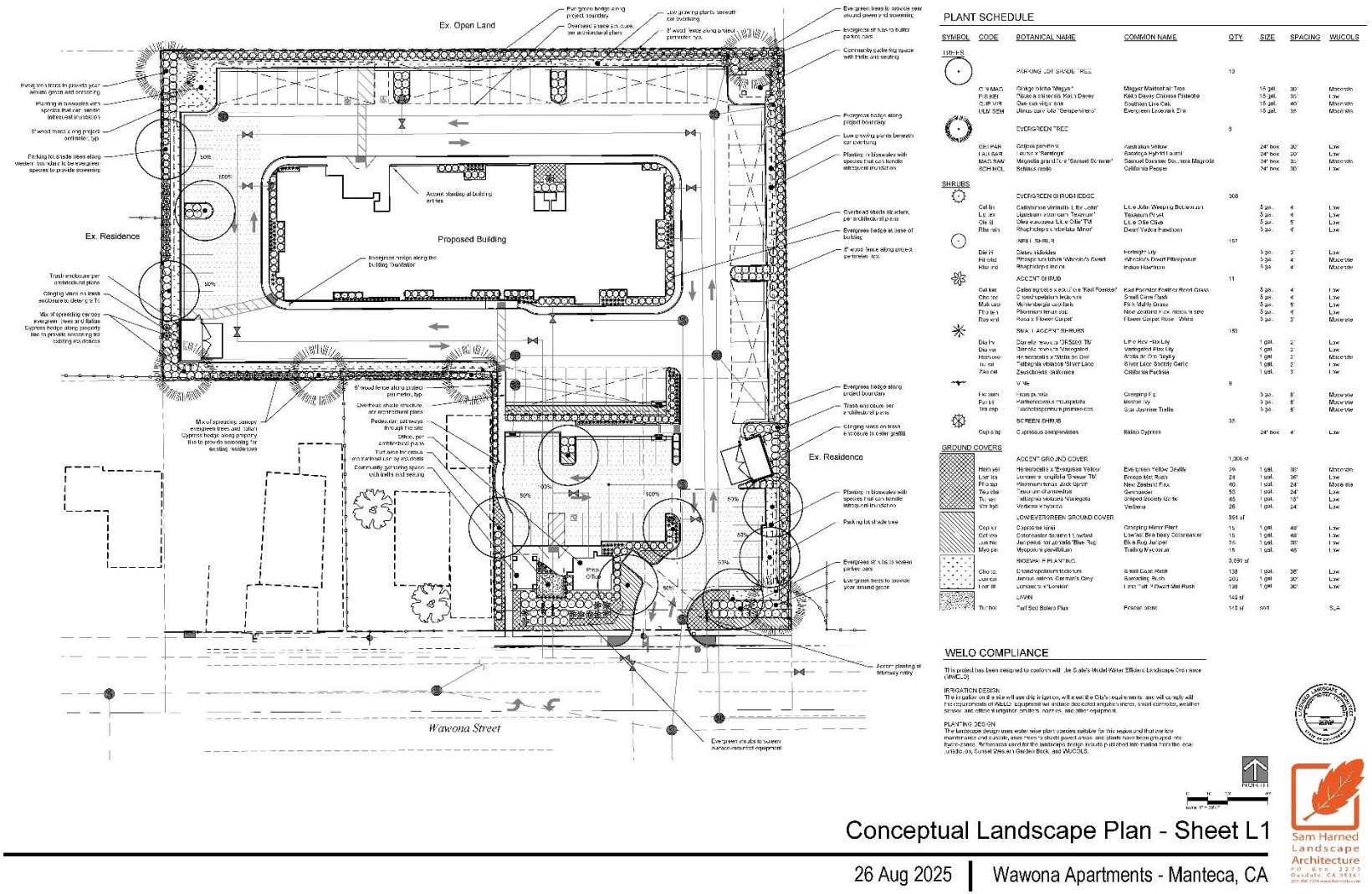

Figure 2-15 Conceptual Landscaping Plan

Public Services and Utilities

The Project site is within city limits and thus, would be required to connect to water, wastewater, and stormwater services. Figure 2-16 depicts the proposed utilities plan. Electricity and telecommunications services are provided by private companies. In addition, the Project would be subject to fees for the construction, acquisition, and improvements for public services including but not limited to: Fire Protection Services, Police Protection Services, and Schools.

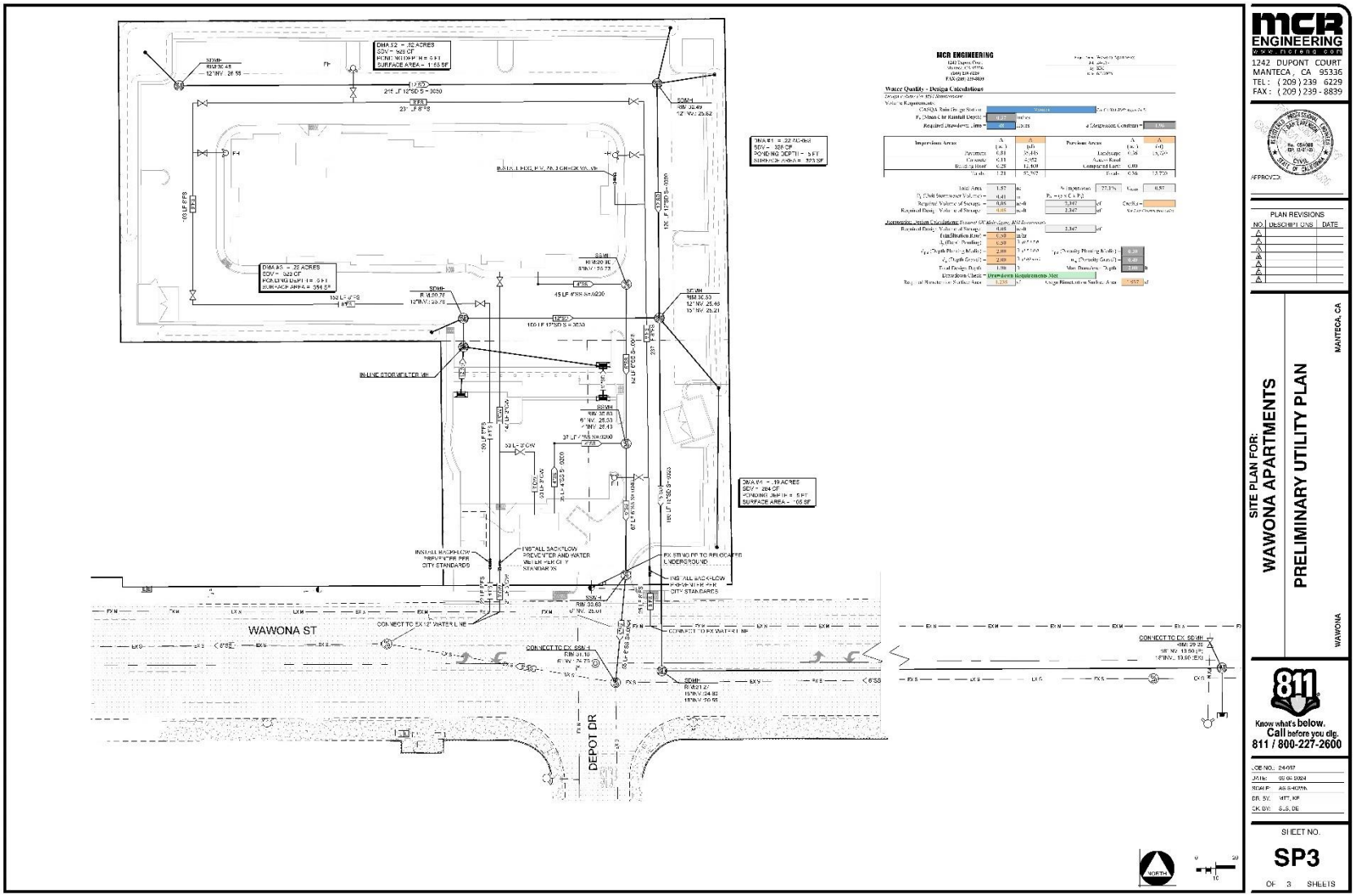

Figure 2-16 Conceptual Utilities Plan

2.14 Required Project Approvals

The City of Manteca requires the following review, permits, and/or approvals for the proposed Project. Other approvals not listed below may be required as identified through the entitlement process.

- General Plan Amendment
- Rezone
- Site Plan Review
- Minor Zone Modification
- Lot Line Adjustment
- Planning Commission Review and Approval
- City Council Review and Approval
- Building Permit
- Grading Permit
- Encroachment Permit
- Utility Permit

In addition, other agencies may have the authority to issue permits prior to implementation of the Project including but not limited to: San Joaquin Valley Air Pollution Control District, Pacific Gas and Electric Company, and Regional Water Quality Control Board.

2.15 Consultation with California Native American Tribes

CEQA 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. 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 federally recognized Indian tribes.

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.

A consultation list of tribes with traditional lands or cultural places located within San Joaquin County was requested and received from the California Native American Heritage Commission (NAHC) on January 14, 2025. The listed tribes include Amah Mutsun Tribal Band, Confederated Villages of Lisjan Nation, Muwekma Ohlone Tribe of the San

Francisco Bay Area, Northern Valley Yokut/Ohlone Tribe, Tule River Indian Tribe, and Wuksachi Indian Tribe/Eshom Valley Band. The NAHC also conducted a Sacred Lands File (SFL) search which was negative.

The City of Manteca conducted formal tribal consultation for the proposed Project pursuant to AB 52 (Chapter 532, Statutes 2014) and SB 18 (Chapter 905, Statutes 2004) on January 14, 2025. Letters were sent to the tribes identified above. Consultation for AB 52 ended on February 13, 2025, and consultation for SB 18 ended on April 14, 2025. On February 11, 2025, a response was received from the Confederated Villages of Lisjan Nation Tribe requesting copies of the final CHRIS and EIR for the project, along with the SLF from Native American Heritage Commission and any associated archeological reports.

3 DETERMINATION

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, as indicated by the checklist on the following pages.

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

For purposes of this Initial Study, the following answers have the corresponding meanings:

"No Impact" means the specific impact category does not apply to the Project, or that the record sufficiently demonstrates that Project specific factors or general standards applicable to the Project will result in no impact for the threshold under consideration.

"Less Than Significant Impact" means there is an impact related to the threshold under consideration, but that impact is less than significant.

"Less Than Significant with Mitigation Incorporation" means there is a potentially significant impact related to the threshold under consideration, however, with the mitigation incorporated into the Project, the impact is less than significant. For purposes of this Initial Study "mitigation incorporated into the Project" means mitigation originally described in the GP PEIR and applied to an individual Project, as well as mitigation developed specifically for an individual Project.

"Potentially Significant Impact" means there is substantial evidence that an effect may be significant related to the threshold under consideration.

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 (EIR) 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 EIR 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.

Approved By:

October 7, 2025

Toben Barnum, Associate Planner — Date
City of Manteca, Development Services Department

4 EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 AESTHETICS

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 a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock out-croppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality 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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

4.1.1 Environmental Setting

Generally, aesthetic resources may include scenic vistas and scenic resources (e.g. trees, rock outcroppings, historic buildings, highways). Manteca's visual features predominately include urbanized and agricultural land uses. The Project Site is approximately 1.67 acres located on the north side of Wawona Street between Airport Way and Fishback Road. A portion of the Project site currently exists as a single-family residence, with the remainder being vacant. The Project site is surrounded by urban development to the east and south and rural development to the north and west.

Manteca 2043 General Plan

The Manteca 2043 General Plan does not identify any specific scenic corridors or scenic vistas within the City's Planning Area; however, it does identify the agricultural lands and water resources surrounding the City as having become important visual resources which contribute to Manteca's identity.

Manteca Zoning Ordinance

Chapter 17.50 Lighting of the Manteca Municipal Code (MMC) outlines enforceable requirements and standards for all new and existing developments to prevent lighting and glare impacts, while balancing safety and security. Section 17.50.070 requires a preliminary outdoor lighting plan to be prepared for every project as part of Site Plan and Design Review. The plan should include the following:

1. Manufacturer specification sheets, cut sheets, and other manufacturer-provided information for all proposed outdoor light fixtures to show fixture diagrams and outdoor light output levels
2. The proposed location, mounting height, and aiming point of all outdoor lighting fixtures.
3. If building elevations are proposed for illumination, drawings of all relevant building elevations showing the fixtures, the portions of the elevations to be illuminated, the illumination level of the elevations, and the aiming point for any remote light fixture.
4. Photometric data, including a computer-generated photometric grid showing foot-candle readings every 10 feet within the property or site and 10 feet beyond the property lines.

California Scenic Highway Program

The California Scenic Highway Program was established in 1963 with the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. State Route 120 and State Route 99 are “Classified Landscaped Freeways.” Neither State Route is located adjacent to the Project site.. [1]

4.1.2 Impact Assessment

Except as provided in PRC Section 21099, ***would the Project****:*

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The Project site, currently mostly vacant with one single-family residence, is relatively flat and surrounded by existing residential development. Because the site is located within a largely built-out residential area, there are no direct views of open spaces or agricultural lands from or surrounding the site. Therefore, the Project's impact on any scenic vista is considered less than significant.

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

No Impact. The nearest designated highways are State Route 120 and State Route 99. These State Routes are “Classified Landscaped Freeways.” Neither State Route is located adjacent to the Project site. Therefore, the Project would not impact any scenic resources within a state scenic highway, and no impact will occur.

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

[1] Caltrans. California State Scenic Highway System Map. Accessed on January 15, 2025, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The Project site is in an urbanized area surrounded by residential development. The Project would be required to comply with applicable zoning and other regulations governing scenic quality, including the General Plan, MMC, and California Building Code (CBC). This compliance will minimize any potential visual impacts and ensure that the project does not conflict with regulations designed to protect scenic quality. Therefore, the impact on visual character and scenic quality is considered 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. The Project would incrementally increase light and glare in the area from sources such as streetlights, exterior building lighting, and vehicle headlights. Construction activities, primarily occurring during daylight hours, may also generate temporary light and glare, though some work could occur during dusk or early evening hours as permitted by the Manteca Municipal Code (MMC). However, this construction-related light and glare will cease upon Project completion. Post-construction, the Project would be required to comply with applicable General Plan policies and MMC regulations designed to minimize light and glare impacts. Furthermore, compliance with Title 24 lighting requirements, verified through the building permit process, will further reduce nighttime light impacts. These requirements address outdoor lighting, including regulations for mounted luminaires (e.g., high efficacy, motion sensor controls, time clocks, energy management systems). Therefore, conditions imposed by the City pursuant to the General Plan, MMC, and Title 24 would ensure that any light and glare impacts are less than significant.

4.1.3 Mitigation Measures

None required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

	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?				X
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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))?				X
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?			X	

4.2.1 Environmental Setting

The Project Site is located within Manteca city limits and is planned and zoned for urbanized uses. The Project site currently contains a single-family residence and two (2) small sheds. The existing biotic conditions and resources of the site can be defined primarily as ruderal and are highly disturbed. There are existing trees and shrubs surrounding the residence. The site does not contain any agricultural or forestry resources such as agricultural land, forest land, or timberland.

Farmland Monitoring and Mapping Program

The California Department of Conservation manages the Farmland Mapping and Monitoring Program (FMMP) that provides maps and data for analyzing land use impacts on farmland. The FMMP produces the Important Farmland Finder as a resource map that shows quality (e.g., soils) and land use information. Agricultural land is rated

according to soil quality and irrigation status, in addition to many other physical and chemical characteristics. The highest quality land is called "Prime Farmland." According to the FMMP, California Important Farmland Finder, the Project site and adjacent sites are classified as "Rural Residential Land" which includes residential areas of one (1) to five (5) structures per 10 acres. [2] Figure 4-1 shows the farmland type classification within the Project vicinity.

California Land Conservation Act

The California Land Conservation Act of 1965 (i.e., the Williamson Act) allows local governments to enter contracts with private landowners to restrict parcels of land for agricultural or open space uses. In return, property tax assessments of the restricted parcels are lower than full market value since the restricted parcels are assessed according to their restricted use rather than their development potential free of such restriction. The minimum length of a Williamson Act contract is 10 years and automatically renews annually upon its anniversary date; as such, the contract length is essentially indefinite unless appropriately cancelled. The Project site and surrounding properties are not subject to the Williamson Act.

[2] California Department of Conservation. (2020). California Important Farmland Finder. Accessed on February 12, 2025, https://maps.conservation.ca.gov/DLRP/CIFF/

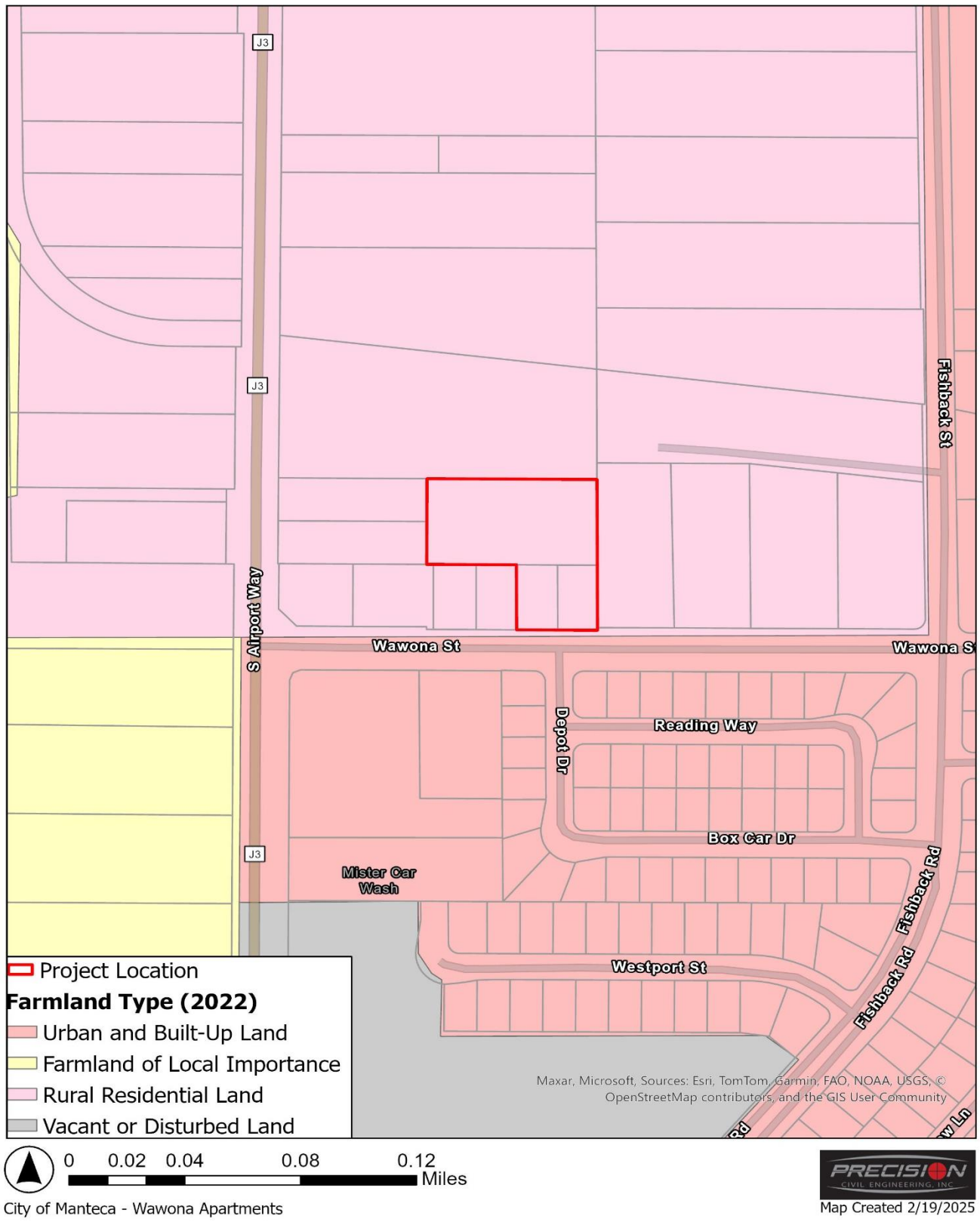

Figure 4-1 Farmland Type for Project site and vicinity

4.2.2 Impact Assessment

Would the Project:

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

No Impact. The Project site is not located on or adjacent to any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, according to the California Department of Conservation's Farmland Mapping and Monitoring Program maps. The nearest Prime Farmland is approximately two (2) miles southwest, and the nearest Farmland of Statewide Importance is about half a mile west. No Unique Farmland exists within a two (2)-mile radius of the site. Therefore, the Project would not convert any designated farmland to non-agricultural use and no impact would occur.

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

No Impact. The Project site and surrounding properties are not zoned for agricultural use and are not under Williamson Act contracts. Therefore, the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

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 site is not located on land zoned for forest land, timberland, or Timberland Production, as defined by the relevant sections of the Public Resources Code and Government Code. Therefore, the Project would not conflict with existing zoning for these land uses or require any rezoning, and no impacts would occur.

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

No Impact. The Project site does not contain forest land, nor is it designated or zoned for forest uses. Therefore, the Project would not result in the loss of forest land or conversion of forest land to non-forest use, and no impacts would occur.

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?

Less than Significant Impact. The Project site is not located on or adjacent to any lands designated as Farmland or forest land, nor is the site and surrounding properties zoned for agricultural, or forestry uses. The Project would not require the extension of infrastructure, such as new roads or utilities, into areas containing Farmland or forest land that could result in future conversion of Farmland or forest land to non-agricultural or non-forest use. The Project is consistent with the existing land use patterns in the surrounding area, which are residential and commercial. This consistency minimizes the potential for the Project to result in future conversion of Farmland or forest land to non-agricultural or non-forest use. In addition, the Project does not have any components that would affect the continued agricultural or forestry uses on nearby lands. Therefore, impacts would be less than significant.

4.2.3 Mitigation Measures

None required.

4.3 AIR QUALITY

	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?			X	
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?			X	
c)	Expose sensitive receptors to substantial pollutant concentrations?			X	
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

4.3.1 Environmental Setting

The City of Manteca lies within the northern portion of the San Joaquin Valley Air Basin (SJVAB) that is bounded by the Sierra Nevada Mountain range to the east, Coastal Ranges to the west, and Tehachapi mountains to the south. The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality in eight (8) counties including: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. The SJVAPCD oversees the SJVAB.

Impacts on air quality result from emissions generated during short-term activities (construction) and long-term activities (operations). Construction-related emissions consist mainly of exhaust emissions (NO_X, PM_{10}, and $PM_{2.5}$) from construction equipment and other mobile sources, and fugitive dust (PM_{10} and $PM_{2.5}$) emissions from earth moving activities. Operational emissions are source specific and consist of permitted equipment and activities and non-permitted equipment and activities.

Air pollution in the SJVAB can be attributed to both human-related (anthropogenic) and natural (non-anthropogenic) activities that produce emissions. Air pollution from significant anthropogenic activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. Four (4) main sources of air pollutant emissions in the SJVAB are motor vehicles, industrial plants, agricultural activities, and construction activities. All four (4) of the major pollutant sources affect ambient air quality throughout the SJVAB. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air. Air pollutants can remain in the atmosphere for long periods and can build to unhealthful levels when stagnant conditions that are common in the San Joaquin Valley occur. Pollutants are transported downwind from urban areas with many emission sources which are also recirculated back to the urban areas.

Further, the SJVAB is in non-attainment for ozone, PM_{10}, and $PM_{2.5}$, which means that certain pollutants' exposure levels are often higher than the normal air quality requirements. Air quality standards have been set to protect

public health, particularly the health of vulnerable people. Therefore, if the concentration of those contaminants exceeds the norm, some susceptible individuals in the population are likely to experience health effects. Concentration of the pollutant in the air, the length of time exposed and the individual's reaction are factors that affect the extent and nature of the health effects.

San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency primarily responsible for ensuring that National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are not exceeded and that air quality conditions are maintained in the SJVAB, within which the Project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the federal Clean Air Act and the California Clean Air Act .

The SJVAPCD rules and regulations that may apply to projects that will occur during buildout of the Project include but are not limited to the following:

> ***Rule 2010 – Permits Required.*** *The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.*
>
> ***Rule 2201 – New and Modified Stationary Source Review Rule.*** *The purpose of this rule is to provide for the following:*
>
> *The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards; and*
>
> *No net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors.*
>
> ***Rule 4001 – New Source Performance Standards.*** *This rule incorporates the New Source Performance Standards from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR).*
>
> ***Rule 4002 – National Emission Standards for Hazardous Air Pollutants.*** *This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).*
>
> ***Rule 4102 – Nuisance.*** *The purpose of this rule is to protect the health and safety of the public and applies to any source operation that emits or may emit air contaminants or other materials.*
>
> ***Rule 4601 – Architectural Coatings.*** *The purpose of this rule is to limit VOC emissions from architectural coatings. This rule specifies architectural coatings storage, cleanup, and labeling requirements.*

Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. *The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.*

Regulation VIII – Fugitive PM_{10} Prohibitions. *The purpose of Regulation VIII (Fugitive PM_{10} Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM_{10}) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions.*

Rule 9510 – Indirect Source Review. *The purposes of this rule are to:*

1. Fulfill the District's emission reduction commitments in the PM10 and Ozone Attainment Plans.

2. Achieve emission reductions from the construction and use of development projects through design features and on-site measures.

3. Provide a mechanism for reducing emissions from the construction of and use of development projects through off-site measures.

Thresholds of Significance

To assist local jurisdictions in the evaluation of air quality impacts, the SJVAPCD has published the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). SJVAPCD recommends a three (3)-tiered approach to air quality analysis based on Project size to allow quick screening for CEQA impacts:

1. **Small Project Analysis Level (SPAL):** based on the District's New Source Review, the District pre-quantified emissions and determined values as thresholds of significance for criteria pollutants. Residential, commercial, retail, industrial, educational, and recreational land uses are eligible to use this for screening. The SPAL was published on November 13, 2020, by the SJVAPCD to determine potential impacts in GAMAQI. [3] SPAL is based on a CalEEMod version 2016.3.2.
2. **Cursory Analysis Level (CAL):** CAL is used to determine significance on Projects that exceed the SPAL criteria. Analysis includes using CalEEMod to estimate emissions and air pollutants.
3. **Full Analysis Level (FAL):** this level of analysis is usually required for an EIR. It requires a full air quality report that describes impacts on the public.

GAMAQI also 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 on human health and welfare. The thresholds of significance are summarized, as follows:

[3] San Joaquin Valley Air Pollution Control District. (2020). "Small Project Analysis Levels (SPAL)". Accessed on February 14, 2025, https://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF

Criteria Air Pollutants

SJVAPCD adopted thresholds of significance for criteria air pollutants, as shown in Table 4-1. The thresholds of significance are based on a calendar year basis. For construction emissions, the annual emissions are evaluated on a rolling 12-month period. The following summarizes these thresholds:

Short-Term Emissions of Particulate Matter (PM_{10}): 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 (PM_{10}): Operational impacts associated with the proposed Project would be considered significant if the Project generates emissions of PM_{10} 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 NOX that exceeds 10 TPY.

Table 4-1 SJVAPCD Recommended Air Quality Thresholds of Significance.[4]

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emission (tons/year)
CO	100	100
NO_X	10	10
ROG	10	10
SO_X	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Conflict with or Obstruct Implementation of Applicable Air Quality Plan

Air Quality Plans (AQPs) are plans for reaching the attainment of air quality standards. The applicable AQP for the SJVAB is the GAMAQI. Due to the region's nonattainment status for ozone, $PM_{2.5}$, and PM_{10}, if the Project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM_{10} would exceed the SJVAPCD's significance thresholds, then the Project would be considered to be conflicting with the AQP. 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. Vehicle Miles Traveled is analyzed in Section 5.17.

[4] SJVAPCD. (2015). Guidance for Assessing and Mitigating Air Quality Impacts. Accessed on February 14, 2025, https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF

Local Mobile-Source 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 (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than one (1).

As recommended by the SJVAPCD, the latest approved California Air Pollution Control Officer's Association (CAPCOA) methodology was utilized as the TAC screening methodology. According to the CAPCOA Guidance Document titled "Health Risk Assessments for Proposed Land Use Projects," there are two types of land use projects that have the potential to cause long-term public health risk impacts. These project types are as follows:

- Type A: Land use Projects with toxic emissions that impact receptors, and
- Type B: Land use Project that will place receptors in the vicinity of existing toxics sources.

In this Guidance document, Type A projects examples are (project impacts receptors):

- combustion related power plants,
- gasoline dispensing facilities,
- asphalt batch plants,
- warehouse distribution centers,
- quarry operations, and
- other stationary sources that emit toxic substances.

Odor

The intensity of an odor source's operations and its proximity to sensitive receptors influences the potential significance of odor emissions. Specific land uses that are considered sources of undesirable odors include landfills, transfer stations, composting facilities, sewage treatment plants, wastewater pump stations, asphalt batch plants, and rendering plants. The SJVAPCD has identified these common types of facilities that have been known to produce odors in the SJVAB and has prepared screening levels for potential odor sources ranging from one to two miles of distance from the odor-producing facility to sensitive receptors. Odor impacts would be considered significant if the Project has the potential to frequently expose members of the public to objectionable odors.

Ambient Air Quality

The SJVAPCD applies the following guidance in determining whether an ambient air quality analysis should be performed: when assessing the significance of Project-related impacts on air quality, it should be noted that the impacts may be significant when on-site emission increases from construction activities or operational activities exceed the 100 pounds per day screening level of any criteria pollutant after implementation of all enforceable mitigation measures. Under such circumstances, the SJVAPCD recommends that an ambient air quality analysis be performed.

Small Project Analysis Level

The SPAL identifies pre-quantified emissions and determined values related to project type, size, and number of vehicle trips. According to the SPAL, projects that fit specified descriptions are deemed to have a less than significant impact on air quality and as such are excluded from quantifying criteria pollutant emissions for CEQA purposes. The SPAL threshold criteria for residential projects is shown in Table 4-2.

Table 4-2 SPAL Thresholds for Residential Projects

Land Use Type	Size and Unit	Average Daily One-Way Trips for all fleet types (Except HHDT)	Average Daily One-way for HHDT Trips only (50-mile trip length)
Single Family	155 dwelling unit	800	15
Apartment, Low Rise	224 dwelling unit	800	15
Apartment, Mid Rise	225 dwelling unit	800	15
Apartment, High Rise	340 dwelling unit	800	15
Condominiums/Townhouse	352 dwelling unit	800	15

Manteca 2043 General Plan

The Manteca 2043 General Plan Resource Conservation Element established policies and actions related to air quality, as listed below.

Policy RC-5.1. *Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:*

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative fuel city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*
- *Promoting participation of major existing and new employers in the transportation demand management (TDM) program facilitated by the San Joaquin Council of Governments.*

Policy RC-5.2. *Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants.*

Policy RC-5.3. *Require construction and operation of new development to be managed to minimize fugitive dust and air pollutant emissions.*

Policy RC-5.4. Require installation of energy-efficient appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

Policy RC-5.5. Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

Policy RC-5.6. Encourage and support the regional Sustainable Communities Strategy that integrates planning for growth, transportation, land use, housing, and sustainability to meet State greenhouse reduction goals.

Implementation Measure RC-5a. Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*
- *Cooperate with the Air District and community organizations to promote public awareness of air quality issues.*

Implementation Measure RC-5b. Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District "Guide for Assessing and Mitigating Air Quality Impacts", as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*

- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

Implementation Measure RC-5c. Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- *Use of alternative energy sources.*

Implementation Measure RC-5d. Maintain adequate data to analyze cumulative land use impacts on air quality and climate change. This includes tracking proposed, planned, and approved General Plan amendments, development, and land use decisions so that projects can be evaluated for cumulative air quality impacts, including impacts associated with transportation and land use decisions.

Implementation Measure RC-5e. Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals). Appropriate separation shall be determined through a Health Risk Assessment that demonstrates the project would not expose sensitive receptors to toxic air contaminants at or above significance thresholds as determined by the SJVAPCD.

Implementation Measure RC-5f. Construction activity plans shall comply with Air District Rule 8021, including implementation of all required dust control measures and shall, where required, provide a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

- *Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.*

4.3.2 Impact Assessment

Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. Air Quality Plans (AQPs) are designed to achieve and maintain compliance with ambient air quality standards. These plans involve a detailed analysis of factors influencing air quality within a specific air basin, including growth projections, emission sources, pollutant formation processes, and existing and planned emission controls. The goal of an AQP is to demonstrate how, through a combination of regulations, programs, and other measures, the air basin will attain and maintain the air quality standards.

The applicable AQP for the San Joaquin Valley Air Basin (SJVAB) is the San Joaquin Valley Air Pollution Control District's (SJVAPCD) *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds identified in the GAMAQI would not conflict with or obstruct the applicable AQP.

The GAMAQI contains the Small Project Analysis Level (SPAL) screening tool that pre-quantifies emissions and significance thresholds below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants. Projects below these SPAL thresholds are presumed to have a less than significant impact on air quality and are considered consistent with the AQP. As demonstrated below, the proposed Project would not have any significant effects relating to air quality pursuant to SPAL. The Project is below all thresholds and therefore, the Project is assumed to result in air quality impacts that are below the identified thresholds of significance. Therefore, the proposed Project would not be considered to obstruct implementation of the applicable AQP or be in conflict with the applicable AQP and a less than significant impact would occur.

Table 4-3 SPAL Significance Thresholds

	SPAL Threshold	Proposed Project	Below Threshold?
Size/Unit	224 dwelling units	44 dwelling units	Yes
Average Daily One-way Trips for All Fleet Types (Except Heavy-Heavy Duty Trucks (HHDT))	800	357	Yes
Average Daily One-way for HHDT trips only (50-mile trip length)	15	0	Yes
Note: Trip generation and VMT are further described in Section 4.17.			

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

Less than Significant Impact. The San Joaquin Valley Air Basin (SJVAB) is currently designated as non-attainment for ozone, PM_{10}, and $PM_{2.5}$ under both federal and state ambient air quality standards. This means that existing concentrations of these pollutants frequently exceed established health-based standards, posing a risk to public health, especially for sensitive populations. Because the Project's emissions are below the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Small Project Analysis Level (SPAL) thresholds (criterion a)), the emissions are presumed to have a less than significant impact on air quality and are excluded from further quantification for CEQA purposes. The SPAL thresholds are designed to identify projects that, individually or cumulatively, would not

contribute significantly to existing air quality violations. Therefore, the Project's contribution to cumulative increases in these non-attainment pollutants would be considered less than significant and would not result in a cumulatively considerable net increase. Impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Sensitive receptors, such as schools, parks, playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units are more susceptible to the adverse effects of air pollution. The nearest sensitive receptors to the Project site are single-family residences located adjacent to the site, to the south, east, and west. As discussed previously, Project emissions are below the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Small Project Analysis Level (SPAL) thresholds for both construction and operation. Projects below these thresholds are presumed to have a less than significant impact on air quality and are not required to perform further analysis. Therefore, the Project's potential to expose nearby sensitive receptors to substantial pollutant concentrations would be considered less than significant.

Furthermore, the Project proposes residential development. Residential development typically does not generate substantial toxic emissions (e.g., Type A uses defined by the California Air Pollution Control Officers Association (CAPCOA) guidelines). While construction activities would generate temporary emissions, primarily from diesel equipment exhaust, these emissions would be limited to the construction period. Moreover, construction activities would be required to comply with all applicable SJVAPCD rules and regulations, including but not limited to Regulation VIII (Fugitive PM_{10} Prohibitions), Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 4402 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). Compliance with these regulations will further minimize potential impacts to sensitive receptors. Therefore, impacts related to exposure of sensitive receptors to substantial pollutant concentrations are considered less than significant.

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

Less than Significant Impact. Certain land uses, such as landfills, transfer stations, composting facilities, sewage treatment plants, wastewater pump stations, asphalt batch plants, and rendering plants, are known to generate objectionable odors. This Project, which facilitates residential development, does not involve any of these odor-generating uses. Therefore, it is unlikely to produce odors that would adversely affect a substantial number of people. Furthermore, a review of the surrounding area indicates no major odor-generating sources (e.g., sanitary landfill, transfer station, composting facility, food processing facility) in proximity to the Project site. While temporary odors associated with diesel fuel and equipment exhaust may be present during construction activities, these odors will be short-lived and limited to the construction phase. For these reasons, potential odor impacts associated with the Project would be less than significant.

4.3.3 Mitigation Measures

None required.

4.4 BIOLOGICAL RESOURCES

	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 Game or U.S. Fish and Wildlife Service?		X		
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?			X	
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f)	Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.		X		

4.4.1 Environmental Setting

The Project site is mostly vacant. A single-family residential dwelling currently occupies one of the lots (APN 222-100-14). The other two lots (APNs 222-100-09 and 222-100-15) are currently vacant. According to historical aerial imagery, APN 222-100-09 has been vacant for several decades and appears to be regularly disced for vegetation control. Additionally, APN 222-100-15 had historically been occupied by a single-family residential structure up through the year 2011 when the structure was demolished. The lot has sat vacant since.

The Project site is relatively flat with a Tinnin loamy coarse sand soil type that is well drained with a depth to water table of more than 80 inches. The existing biotic conditions and resources of the vacant parcels can be defined primarily as ruderal and are highly disturbed. Development of the Project site would require the removal of several trees and shrubs associated with the single-family residence (APN 222-100-14).

U.S. Fish and Wildlife – Special-Status Species Database

The U.S. Fish and Wildlife Service (USFWS) operates an "Information for Planning and Consultation" (IPaC) database, which is a Project planning tool for the environmental review process that provides general information on the location of special-status species that are "known" or "expected" to occur (**note:** the database does not provide occurrences; refer to the California Department of Fish and Wildlife – Natural Diversity Database below). [5] Specifically, the database identifies seven (7) endangered species and ten (10) migratory birds that are potentially affected by activities on the Project Site. The list of species is provided in Appendix C.

U.S. Fish and Wildlife – Critical Habitat Report

Once a species is listed under the federal Endangered Species Act, NOAA Fisheries is required to determine whether there are areas that meet the definition of Critical Habitat. Per NOAA Fisheries, Critical Habitat is defined as:

- Specific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection; and
- Specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. [6]

The process of Critical Habitat designation is complex and involves the consideration of scientific data, public and peer review, economic, national security, and other relevant impacts. According to the Critical Habitat for Threatened & Endangered Species Report updated September 17, 2024, the Project Site and its immediate vicinity (0.5-mile radius from the site) are not located within a federally designated Critical Habitat. [7] The closest federally designated Critical Habitat is located approximately 3.1 miles west of the Project site for Sturgeon, green (*Acipenser medirostris*) and Steelhead (*Oncorhynchus mykiss*) within the San Joaquin River.

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[5] U.S. Fish and Wildlife Service. Information and Planning Consultation Online System. Accessed on February 14, 2025, https://ecos.fws.gov/ipac/

[6] National Oceanic and Atmospheric Administration (NOAA). Critical Habitat. Accessed on February 14, 2025, https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat#definition-of-critical-habitat

[7] U.S. Fish & Wildlife. (2025). National NMFS ESA Critical Habitat Mapper. Accessed on February 14, 2025, https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=68d8df16b39c48fe9f60640692d0e318

U.S. Fish & Wildlife Service – National Wetlands Inventory

The USFWS provides a National Wetlands Inventory (NWI) with detailed information on the abundance, characteristics, and distribution of U.S. wetlands. A search of the NWI shows no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) on the Project Site. [8] The NWI does not identify any water features within the Project site. Additionally, the Project Site is not within or adjacent to a riparian area nor does the site contain water features.

Environmental Protection Agency – WATERS Geoviewer

The U.S. Environmental Protection Agency (EPA) WATERS GeoViewer provides a GeoPlatform based web mapping application of water features by location. According to the WATERS GeoViewer, there are no surface water features (i.e., streams, canals, pipelines, waterbodies) within the Project Site or its immediate vicinity. [9] The Project site is within the catchment area of the San Joaquin River. The catchment (i.e., watershed) is approximately 2.63 square miles, expanding across the south portion of Lathrop, Manteca, and the north portion of Ripon.

California Department of Fish and Wildlife – Natural Diversity Database

The California Department of Fish and Wildlife (CDFW) operates the California Natural Diversity Database (CNDDB), which is an inventory of the status and locations of rare plants and animals in California along with reported occurrences of such species. [10] The Project Site is located on the east border of the United States Geological Survey (USGS) Manteca 7.5-minute quadrangle map (Quad), adjacent to the Lathrop Quad. According to the CNDDB Quickview Tool, there are 62 special-status species that have been observed and reported in the nine (9) quads, including Manteca and surrounding quads (i.e., Stockton West, Stocken East, Peters, Lathrop, Avena, Vernalis, Ripon, and Salida). 9-quad searches are often used to generate a list of potential CNDDB-tracked elements one might encounter when performing surveys in a given area. A list of the 62 special-status species within the 9-quads search is provided in Table 4-4.

Table 4-4 Special-Status Species within 9-Quad Search

Common Name	Federal Status	State Status	Type
alkali milk-vetch	None	None	Plants - Vascular
alkali-sink goldfields	None	None	Plants - Vascular
American bumble bee	None	None	Animals - Insects
big tarplant	None	None	Plants - Vascular
burrowing owl	None	Candidate Endangered	Animals - Birds
cackling (=Aleutian Canada) goose	Delisted	None	Animals - Birds
California alkali grass	None	None	Plants - Vascular
California horned lark	None	None	Animals - Birds
California linderiella	None	None	Animals - Crustaceans

[8] U.S. Fish & Wildlife Service. National Wetlands Inventory. Accessed February 14, 2025, https://www.fws.gov/wetlands/data/Mapper.html
[9] U.S. Environmental Protection Agency. WATERS GeoViewer 2.0. Accessed February 14, 2025, https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=074cfede236341b6a1e03779c2bd0692
[10] California Department of Fish and Wildlife. CNDDB QuickView Tool. Accessed February 14, 2025, https://wildlife.ca.gov/Data/CNDDB

California tiger salamander - central California DPS	Threatened	Threatened	Animals - Amphibians
caper-fruited tropidocarpum	None	None	Plants - Vascular
Conservancy fairy shrimp	Endangered	None	Animals - Crustaceans
Crotchs bumble bee	None	Candidate Endangered	Animals - Insects
Delta button-celery	None	Endangered	Plants - Vascular
Delta smelt	Threatened	Endangered	Animals - Fish
Delta tule pea	None	None	Plants - Vascular
Elderberry Savanna	None	None	Community - Terrestrial
giant gartersnake	Threatened	Threatened	Animals - Reptiles
Great Valley Cottonwood Riparian Forest	None	None	Community - Terrestrial
Great Valley Mixed Riparian Forest	None	None	Community - Terrestrial
Great Valley Valley Oak Riparian Forest	None	None	Community - Terrestrial
green sturgeon - southern DPS	Threatened	None	Animals - Fish
Greenes tuctoria	Endangered	Rare	Plants - Vascular
hardhead	None	None	Animals - Fish
heartscale	None	None	Plants - Vascular
least Bells vireo	Endangered	Endangered	Animals - Birds
lesser saltscale	None	None	Plants - Vascular
loggerhead shrike	None	None	Animals - Birds
longfin smelt - San Francisco Bay-Delta DPS	Endangered	Threatened	Animals - Fish
merlin	None	None	Animals - Birds
midvalley fairy shrimp	None	None	Animals - Crustaceans
moestan blister beetle	None	None	Animals - Insects
Northern California legless lizard	None	None	Animals - Reptiles
obscure bumble bee	None	None	Animals - Insects
pallid bat	None	None	Animals - Mammals
palmate-bracted birds-beak	Endangered	Endangered	Plants - Vascular
recurved larkspur	None	None	Plants - Vascular
riparian (=San Joaquin Valley) woodrat	Endangered	None	Animals - Mammals
riparian brush rabbit	Endangered	Endangered	Animals - Mammals
Sacramento anthicid beetle	None	None	Animals - Insects
saline clover	None	None	Plants - Vascular
San Joaquin spearscale	None	None	Plants - Vascular
San Joaquin Valley giant flower-loving fly	None	None	Animals - Insects
Sanfords arrowhead	None	None	Plants - Vascular
slough thistle	None	None	Plants - Vascular

song sparrow (Modesto population)	None	None	Animals - Birds
steelhead - Central Valley DPS	Threatened	None	Animals - Fish
Suisun Marsh aster	None	None	Plants - Vascular
Swainsons hawk	None	Threatened	Animals - Birds
tricolored blackbird	None	Threatened	Animals - Birds
valley elderberry longhorn beetle	Threatened	None	Animals - Insects
vernal pool fairy shrimp	Threatened	None	Animals - Crustaceans
vernal pool tadpole shrimp	Endangered	None	Animals - Crustaceans
watershield	None	None	Plants - Vascular
western bumble bee	None	Candidate Endangered	Animals - Insects
western ridged mussel	None	None	Animals - Mollusks
western spadefoot	Proposed Threatened	None	Animals - Birds
western yellow-billed cuckoo	Threatened	Endangered	Animals - Birds
white-tailed kite	None	None	Animals - Birds
woolly rose-mallow	None	None	Plants - Vascular
Wrights trichocoronis	None	None	Plants - Vascular
yellow-headed blackbird	None	None	Animals - Birds

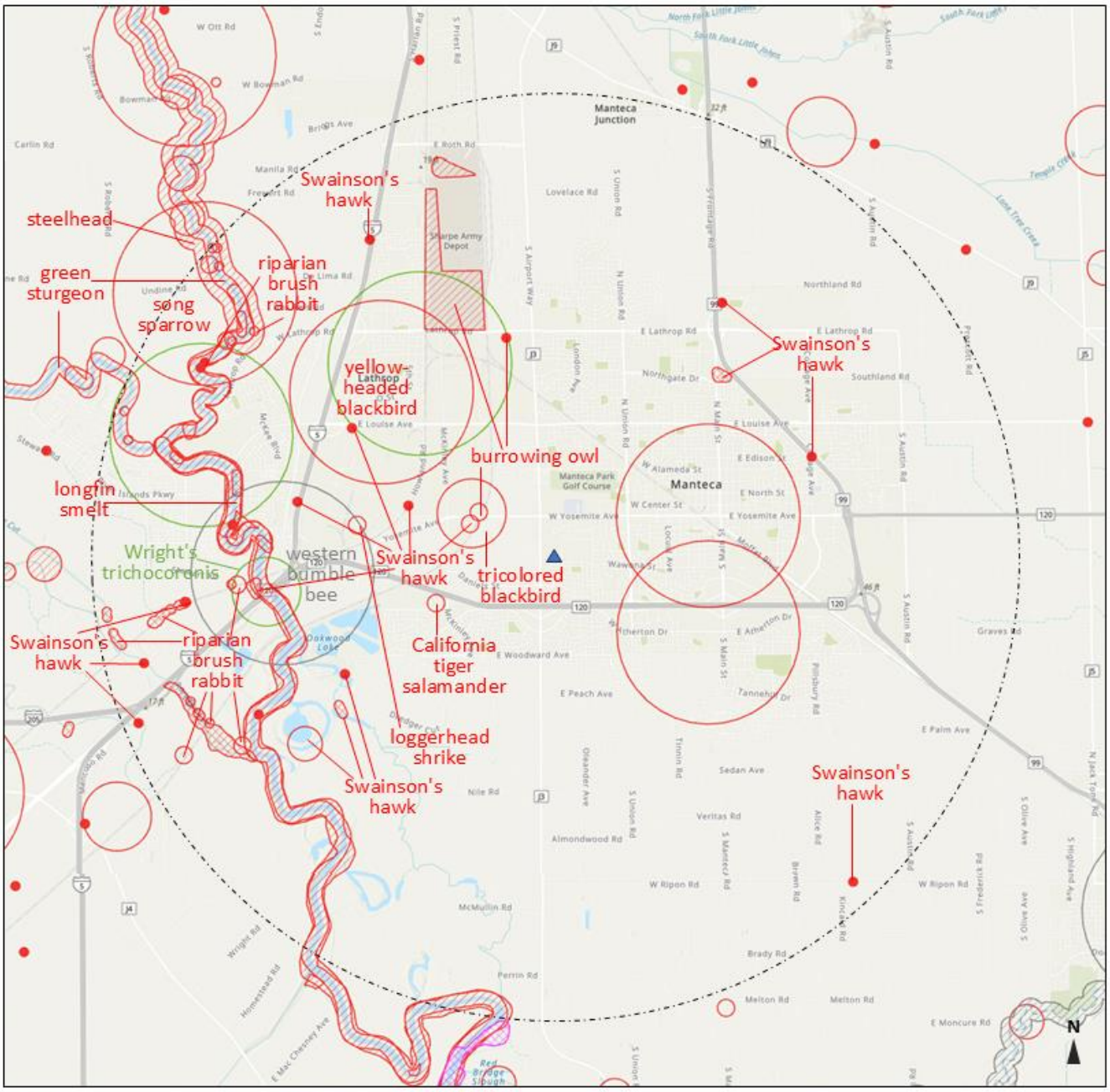
The CNDDB also provides CNDDB-known occurrences within a set geographic radius. Figure 4-2 shows the CNDDB-identified occurrences of animal and plant species within the five (5)-mile radius of the Project site. Table 4-4 lists all federally or state-listed special-status species CNDDB-known occurrences within the five (5)-mile radius of the Project site. As shown, the nearest occurrences are the tricolored blackbird, dated 1974, burrowing owl, date 2000, and Swainson's hawk, dated 1998. The CNNDB ranks occurrences by the condition of habitat and ability of the species to persist over time. As shown, the occurrences within the five (5)-mile radius of the Project site are ranked as poor, fair, and good.

Table 4-5 Special-Status Species Occurrences within 5-mile radius of Project site

Species	Date	Rank	Distance to site
tricolored blackbird	1974/06/05	Unknown	0.7 miles northwest
burrowing owl	2000/01/21	Fair	0.9 miles northwest
Swainson's hawk	1998/04/14	Good	0.9 miles northwest
California tiger salamander	1996/04/11	Fair	1.3 miles southwest
Swainson's hawk	2003/06/13	Unknown	1.6 miles northwest
yellow-headed blackbird	1894/05/10	Unknown	1.7 miles northwest
loggerhead shrike	2016/04/21	Unknown	2.1 miles northwest
western bumble bee	1962/10/03	Unknown	2.1 miles west
Swainson's hawk	2009/04/28	Unknown	2.8 miles west
Swainson's hawk	2009/04/04	Unknown	2.6 miles northwest
burrowing owl	1997/03/14	Fair	2.5 miles northwest
burrowing owl	2016/07/19	Fair	2.8 miles northwest
Swainson's hawk	2011/05/30	Fair	4.0 miles northwest
song sparrow	1911/10/03	Unknown	4.0 miles northwest
steelhead	2012/05/07	Unknown	3.5 miles west (San Joaquin River)
green sturgeon	2020/04/11	Unknown	3.5 miles west (San Joaquin River)

longfin smelt	2012/04/23	Unknown	3.5 miles west (San Joaquin River)
riparian brush rabbit	2004/02/10	Fair	4.1 miles northwest
Wright's trichocoronis	1914/09/28	Unknown	2.9 miles west
riparian brush rabbit	2002/08/14	Unknown	3.4 miles west
Swainson's hawk	2009/06/25	Unknown	3.4 miles west
riparian brush rabbit	2010/01/07	Poor	4.0 miles southwest
Swainson's hawk	2009/06/11	Unknown	4.0 miles southwest
riparian brush rabbit	2006/01/03	Poor	4.8 miles southwest
Swainson's hawk	2009/06/11	Unknown	4.5 miles southwest
Swainson's hawk	2002/06/10	Unknown	4.8 miles southwest
riparian brush rabbit	2003/02/xx	Unknown	4.5 miles southwest
Swainson's hawk	1993/04/20	Unknown	3.3 miles southwest
Swainson's hawk	2009/07/13	Unknown	2.8 miles southwest
Swainson's hawk	2009/07/03	Poor	2.6 miles southwest
Swainson's hawk	2011/07/27	Good	3.4 miles northeast
Swainson's hawk	2012/04/06	Fair	2.7 miles northeast
Swainson's hawk	2011/07/27	Good	3.0 miles northeast
Swainson's hawk	2009/07/16	Unknown	4.8 miles southeast

Extirpated or possible extirpated occurrences are not shown on the table.



Plant (80m)
Plant (specific)
Plant (non-specific)
Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)

Terrestrial Comm. (circular)
Multiple (circular)
Project site
5-miles radius from Project site

Note: Data Accuracy

Accuracy represents spatial uncertainty in a relative way on a scale of one to ten (from most accurate to leas accurate).

- Specific – specific bounded area. (Level 1)
- Non-specific – non-specific bounded area. (Level 3)
- 80m – specific bounded area with an 80-meter radius. (Level 1)

***Source**: California Natural Diversity Database (CNDDB) Commercial [ds85]*
***Accessed Date**: February 18, 2025*

Figure 4-2 CNDDB Species Occurrences

Table 4-6 provides an analysis of essential habitats and the potential for the existence of the special-status species to exist on the Project site.

Table 4-6 Essential Habitats and Potential Existence of Special-Status Species on Site

Common Name/Type	Habitat	Potential Occurrence in the Project Site
burrowing owl	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Potentially Present.** Associated with a ground burrowing population (such as ground squirrels) that provide burrows. Found in open grassland with suitable prey base. It cannot be determined whether ground squirrel populations are existing. As such, there is potential for presence.
tricolored blackbird	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	**No/Low Potential**. The Project site does not contain any open water. As such, the site does not provide suitable habitat.
Swainsons hawk	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	**Potentially Present.** Nests in mature trees. There are mature trees within the Project site.
California tiger salamander	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats.	**No/Low Potential**. No suitable habitat onsite since there are no seasonal wetlands or ponds within the Project site.
yellow-headed blackbird	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	**No/Low Potential**. No suitable habitat onsite since there are no wetlands or ponds within the Project site.
loggerhead shrike	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Low Potential.** The site is surrounded by development, not providing open/suitable habitat.
western bumble bee	Mixed woodlands, farmlands, urban areas, montane meadows, grasslands, and forests. However, their population is declining, and they're now more restricted to high elevations.	**Low Potential.** Due to the site's disturbed condition, limited floral diversity, and regular ground disturbance, the potential of occurrence is low.
song sparrow	Central lower basin of Great Valley, from Colusa County south to Stanislaus County and east of Suisun Marshes. Breeds chiefly below 200 feet elevation.	**Low/Moderate Potential.** Given the presence of shrubs and trees on the site and the species' adaptability to urban and disturbed environments, there is a moderate potential for foraging and low to moderate potential for

		nesting on the site, particularly on the lot with existing vegetation.
Steelhead *(fish)*	Populations in the Sacramento and San Joaquin rivers and their tributaries.	No Potential. No suitable habitat onsite since there are no surface water bodies within the Project site.
green sturgeon *(fish)*	Spawning site fidelity. Spawns in the Sacramento, Feather and Yuba Rivers. Presence in upper Stanislaus and San Joaquin Rivers may indicate spawning. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles.	No Potential. No suitable habitat onsite since there are no surface water bodies within the Project site.
longfin smelt *(fish)*	Pelagic and anadromous within the Sacramento-San Joaquin River Delta, San Francisco Bay, and Gulf of the Farallones. Spawns in lower freshwater reaches of Sacramento and San Joaquin Rivers. First year in Suisun Bay; later SF Bay or Gulf of the Farallones.	No Potential. No suitable habitat onsite since there are no surface water bodies within the Project site.
riparian brush rabbit	Riparian areas on the San Joaquin River in northern Stanislaus County.	No/Low Potential. No suitable habitat onsite since there are no riparian habitat within the Project site.
Wright's trichocoronis	Marshes and swamps, riparian forest, meadows and seeps, vernal pools.	No/Low Potential. No suitable habitat onsite since there are no riparian habitat, wetlands, or moist conditions within the Project site.

California Fish and Game Code

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code specifically protect native birds and raptors. Mitigation for avoidance of impacts to nesting birds is typically necessary to comply with these Sections of the Fish and Game Code in CEQA. [11]

Section 3503*: It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.*

Section 3503.5*: It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.*

Section 3513: *It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.*

[11] The California Biologist's Handbook. California Fish and Game Code. Accessed on February 14, 2025, https://biologistshandbook.com/regulations/state-regulations/state-fish-and-game-code/#:~:text=Section%203503,any%20regulation%20made%20pursuant%20thereto.%E2%80%9D

Manteca 2043 General Plan

The Manteca 2043 General Plan Resource Conservation Element established goals and policies to protect biological resources within the city, as listed below.

Goal RC-8 *Protect sensitive native vegetation and wildlife communities and habitat in Manteca.*

> ***Policy RC-8.1*** *Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.*
>
> ***Policy RC-8.2*** *Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands.*
>
> ***Policy RC-8.3*** *Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.*
>
> ***Policy RC-8.4*** *Conserve existing native vegetation, where possible, and integrate regionally native plant species into development and infrastructure projects where appropriate.*
>
> ***Policy RC-8.5*** *Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.*
>
> ***Policy RC-8.6*** *Discourage the premature removal of heritage trees in advance of development, and avoid the removal of other large, mature trees that provide wildlife habitat or contribute to the visual quality of the environment to the greatest extent feasible through appropriate project design and building siting. If full avoidance is not possible, prioritize planting of replacement trees on-site over off-site locations.*
>
> ***Policy RC-8.7*** *Protect special status species and other species that are sensitive to human activities.*
>
> ***Policy RC-8.8*** *Encourage contiguous habitat areas.*
>
> ***Policy RC-8.9*** *Encourage the use of native vegetation in lieu of non-native landscaping in City parks, facilities, and infrastructure, including roadways and drainage facilities.*
>
> ***Policy RC-8.10*** *Continue to support regional efforts to address issues related to urban development, habitat conservation and agricultural protection through participating in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).*

4.4.2 Impact Assessment

Would the Project:

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 the U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. The Project site is mostly vacant. A single-family residential dwelling currently occupies one of the lots (APN 222-100-14). The other two lots (APNs 222-100-09 and 222-100-15) are currently vacant. According to historical aerial imagery, APN 222-100-09 has been vacant for several decades and appears to be regularly disced for vegetation control. The existing biotic conditions and resources of the vacant parcels can be defined primarily as ruderal and are highly disturbed. Development of the Project site would require the removal of several trees and shrubs associated with the single-family residence. There are no water features on site.

As described in Table 4-6, the site conditions provide low suitability for habitat for special-status candidates, sensitive, or special-status species that may occur on the Project site or vicinity. However, there is a potential for burrowing owls to occur on the site if ground squirrel populations are existing. To reduce impacts to burrowing owl, ***Mitigation Measure BIO-1*** is incorporated. Additionally, the Project site does provide some suitable nesting habitat for migratory birds and Swainson's hawk due to existing mature trees north of the site. Therefore, to reduce impacts to migratory birds (including song sparrows) and Swainson's hawk that may occur during site construction and development, the Project shall incorporate ***Mitigation Measure BIO-2*** and ***Mitigation Measure BIO-3***. Through incorporation of mitigation measures, potentially significant impacts would be reduced to less than significant with mitigation incorporated and the Project would not 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 CDFW or USFWS.

Mitigation Measure BIO-1: *Conduct a Preconstruction Survey for Burrowing Owl and Implement Avoidance Measures. A qualified biologist(s) knowledgeable of the species should conduct a focused, preconstruction survey during the peak breeding season for burrowing owls (15 April to 15 July) prior to the start of ground- disturbing activities for the project to determine if burrowing owls are present on the project site and within 250 feet where access allows. The survey should be conducted in substantial compliance with the California Burrowing Owl Consortium's Survey Protocol and Mitigation Guidelines (CBOC, 1997), San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP, 2000) survey methodologies, and/or other survey and mitigation protocols recommended by the CDFW, to the extent feasible. All areas of suitable habitat proposed for ground disturbance will be surveyed. If burrowing owls are detected, buffers and mitigation per the Survey Protocol and Mitigation Guidelines will be implemented and the San Joaquin Council of Governments (SJCOG) shall be notified to initiate the Incidental Take process under the SJMSCP.*

If burrowing owl(s) are found to occupy the site and avoidance is not possible, a qualified biologist knowledgeable of the species should conduct burrow exclusion during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping. Burrow closure should be implemented only where there are adjacent natural burrows and non-impacted sufficient habitat for burrowing owls to occupy with permanent protection mechanisms in place. Construction activities may proceed within buffer zones

only with SJCOG and CDFW approval and with implementation of approved minimization measures. Ongoing surveillance should be conducted during any initial ground- disturbing activity or construction associated with each phase of project implementation to monitor colonization of the area by burrowing owls.

Mitigation Measure BIO-2: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors and song sparrows.

- *If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.*
- *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.*

Mitigation Measure BIO-3: A qualified biologist knowledgeable of the species should conduct a Swainson's hawk survey of the Project Site and the surrounding 0.5-mile-radius area, in substantial compliance with the "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (Swainson's Hawk Technical Advisory Committee 2000) during the normal bird breeding season (1 February through 15 September) prior to the start of any initial ground-disturbing activity or construction associated with each phase of project implementation, to the extent feasible. Additional pre-construction Swainson's hawk surveys should take place no more than 10 days prior to the start of ground-disturbing activities.

If active nests are detected:

- *The project applicant shall immediately notify the San Joaquin Council of Governments (SJCOG), the Implementing Entity of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), to initiate the Incidental Take process.*
- *Avoidance and minimization measures shall be prioritized under the SJMSCP guidelines, including:*
    - *Establishing a minimum 0.25-mile (1,320-foot) no-disturbance buffer around active nests.*
    - *If a reduced buffer is necessary, SJCOG and CDFW approval is required with implementation of noise and visual disturbance minimization measures.*
    - *Construction may proceed within the buffer only with written authorization from SJCOG and CDFW under the SJMSCP.*

To mitigate for the loss of Swainson's hawk foraging habitat, the project applicant should provide Habitat Management (HM) lands to the California Department of Fish and Wildlife (CDFW) based on the following ratios, if feasible:

- *If the project(s) is located within 1 mile of an active nest tree, the applicant should provide a minimum of 1 acre of HM lands for each 1 acre of urban development authorized.*

- *If the project(s) is located within 5 miles of an active nest tree but greater than 1 mile from the nest tree, the applicant should provide a minimum of 0.75 acres of HM lands for each 1 acre of urban development authorized.*
- *If the project(s) is located within 10 miles of an active nest tree but greater than 5 miles from the nest tree, the applicant should provide a minimum of 0.5 acres of HM lands for each 1 acre of urban development authorized.*

The project applicant should provide for the long-term management of the HM lands by funding a management endowment, the interest of which should be used for managing the HM lands. The rate per HM acre should be established through consultation with CDFW. In addition to fee title acquisition of grassland habitat, mitigation could occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

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

No Impact. According to the General Plan, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service, there are no known riparian habitats or other sensitive natural communities identified on the Project site or within the immediate vicinity (i.e., within a 0.5 radius) of the Project. In addition, the site does not contain any water features that would provide habitat for riparian species. For these reasons, it can be determined that the Project site does not provide any riparian habitat or sensitive natural community habitat and thus, no impact would occur because of the Project.

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

No Impact. The Project site is not within or adjacent to a riparian area nor does the site contain water features. A search of the NWI shows no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) on the Project site. As such, the Project site does not contain any state or federally protected wetlands or water features that could become a wetland. As a result, it can be determined that the Project would not result in any impact on State or federally protected wetlands and no impact would occur because of the Project.

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?

Less than Significant Impact. Wildlife movement corridors are linear habitats that function to connect two (2) or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another, in order to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

The habitat value of the Project site for wildlife is limited, and the site contains minimal suitable habitat that could support wildlife species in nesting, breeding, foraging, or escaping from predators. There is no evidence that the plant communities (non-native herbaceous land cover) present in the area support wildlife movement corridors or wildlife nursery sites. The Project site and its surroundings are heavily impacted by human activity (disking, residential uses, vehicular traffic, etc.) so overall use by wildlife is likely low. Due to these conditions, it can be determined that the Project would not interfere with wildlife movement and a less than significant impact would result from the Project.

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

Less than Significant with Mitigation Incorporated. The General Plan Resource Conservation Element outlines policies related to conservation of biological resources as listed in the Environmental Setting. Since the site does not include sensitive habitats (*Policy RC-8.1*), high priority conservation areas (*Policy RC-8.3*), heritage trees (*Policy RC-8.6*), contiguous habitat (*Policy RC-8.8*), the Project would not conflict with any local policies or ordinances protecting biological resources. In addition, ***mitigation measures BIO-1, BIO-2 and BIO-3*** would reduce impacts and protects special status species sensitive to human activities (*Policy RC-8.7*). Therefore, the Project would have less than significant impact with mitigation incorporated.

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?

Less than Significant with Mitigation Incorporated. The City of Manteca is within the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). As such, the Project would not conflict or interfere with HCP. The SJMSCP is a 50-year plan that requires compensation for the conversion of open space to non-open space uses which affect the plant, fish and wildlife species covered by the SJMSCP. There are 97 SJMSCP covered species, including 27 plants, 4 fish, 4 amphibians, 4 reptiles, 33 birds, 15 mammals, and 10 invertebrates. For the conversion of open space to non-open space uses, the SJMSCP provides three (3) compensation methods: 1) preservation of existing sensitive lands, 2) creation of new comparable habitat, or 3) payment of fees.

The Project site has been determined by San Joaquin Council of Governments (SJCOG) to fall within a Category A – Exempt No Pay Zone, which exempts the Project from paying SJMSCP fees. [12] Typically, areas in the Exempt No Pay Zone include urbanized or already developed areas where impacts to covered species or habitats are minimal or nonexistent. Although the Project would not be required to pay SJMSCP fees, the Project would need to participate in the SJMSCP, as required by General Plan *Policy RC-8.10*. The SJMSCP contains Incidental Take Minimization Measures (ITMMs) for SJMSCP covered species, including both Swainson's hawk and burrowing owl, which have a potential of occurring on site. Implementation of ***mitigation measures BIO-1 and BIO-3*** would ensure that the Project does not conflict with the SJMSCP. Therefore, the Project would have less than significant impact with mitigation incorporated.

[12] San Joaquin Council of Governments. (2016). San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, Land Category/Pay Zones: City of Manteca. Accessed February 18, 2025, https://www.sjcog.org/DocumentCenter/View/771/SJMSCP-Compensation-Map---Manteca

4.4.3 Mitigation Measures

Mitigation Measure BIO-1: *Conduct a Preconstruction Survey for Burrowing Owl and Implement Avoidance Measures. A qualified biologist(s) knowledgeable of the species should conduct a focused, preconstruction survey during the peak breeding season for burrowing owls (15 April to 15 July) prior to the start of ground- disturbing activities for the project to determine if burrowing owls are present on the project site and within 250 feet where access allows. The survey should be conducted in substantial compliance with the California Burrowing Owl Consortium's Survey Protocol and Mitigation Guidelines (CBOC, 1997), San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP, 2000) survey methodologies, and/or other survey and mitigation protocols recommended by the CDFW, to the extent feasible. All areas of suitable habitat proposed for ground disturbance will be surveyed. If burrowing owls are detected, buffers and mitigation per the Survey Protocol and Mitigation Guidelines will be implemented and the San Joaquin Council of Governments (SJCOG) shall be notified to initiate the Incidental Take process under the SJMSCP.*

If burrowing owl(s) are found to occupy the site and avoidance is not possible, a qualified biologist knowledgeable of the species should conduct burrow exclusion during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping. Burrow closure should be implemented only where there are adjacent natural burrows and non-impacted sufficient habitat for burrowing owls to occupy with permanent protection mechanisms in place. Construction activities may proceed within buffer zones only with SJCOG and CDFW approval and with implementation of approved minimization measures. Ongoing surveillance should be conducted during any initial ground- disturbing activity or construction associated with each phase of project implementation to monitor colonization of the area by burrowing owls.

Mitigation Measure BIO-2: *If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors.*

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- *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.*

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- *If the project(s) is located within 5 miles of an active nest tree but greater than 1 mile from the nest tree, the applicant should provide a minimum of 0.75 acres of HM lands for each 1 acre of urban development authorized.*
- *If the project(s) is located within 10 miles of an active nest tree but greater than 5 miles from the nest tree, the applicant should provide a minimum of 0.5 acres of HM lands for each 1 acre of urban development authorized.*

The project applicant should provide for the long-term management of the HM lands by funding a management endowment, the interest of which should be used for managing the HM lands. The rate per HM acre should be established through consultation with CDFW. In addition to fee title acquisition of grassland habitat, mitigation could occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

4.5 CULTURAL RESOURCES

	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 as defined in Section 15064.5?			X	
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X	
c)	Disturb any human remains, including those interred outside of formal cemeteries?			X	

4.5.1 Environmental Setting

Generally, the term 'cultural resources' describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, cultural resources are considered "historical resources" that meet criteria in Section 15064.5(a) of the CEQA Guidelines. If a Lead Agency determines that a Project may have a significant effect on a historical resource, then the Project is determined to have a significant impact on the environment. No further environmental review is required if a cultural resource is not found to be a historical resource.

California Historical Resource Information System Record Search

California Historical Resources Information System (CHRIS) record searches generally review file information based on results of Class III pedestrian reconnaissance surveys of project sites conducted by qualified individuals or consultant firms which are required to be submitted, along with official state forms properly completed for each identified resource, to the Regional Archaeological Information Center. Guidelines for the format and content of all types of archaeological reports have been developed by the California Office of Historic Preservation, and reports will be reviewed by the regional information centers to determine whether they meet those requirements. The Central California Information Center (CCIC) conducted a CHRIS record search for the Project Site and the immediate vicinity. Results of the CHRIS record are provided in Appendix D.

California Native American Heritage Commission (NAHC)

A consultation list of tribes with traditional lands or cultural places located within San Joaquin County was requested and received from the California Native American Heritage Commission (NAHC) on January 14, 2025. The listed tribes include Amah Mutsun Tribal Band, Confederated Villages of Lisjan Nation, Muwekma Ohlone Tribe of the SF Bay Area, North Valley Yokut/Ohlone Tribe, Tule River Indian Tribe, Wilton Rancheria, and Wuksachi Indian Tribe/Eshom Valley Band. The NAHC also conducted a Sacred Lands File (SFL) check which was negative. Correspondence is provided in Appendix E.

AB 52 and SB 18 Tribal Consultation

The City of Manteca conducted formal tribal consultation pursuant to AB 52 (Chapter 532, Statutes 2014) and SB 18 (Chapter 905, Statutes 2004) on January 14, 2025, utilizing the consultation list of tribes received from the City of Manteca in correlation with the list of tribes received from NAHC. All seven (7) tribes listed above were included in the formal consultation notice. Consultation for AB 52 ended on February 13, 2025, and consultation for SB 18 ended on April 14, 2025. On February 11, 2025, a response was received from the Confederated Villages of Lisjan Nation Tribe requesting copies of the final CHRIS and EIR for the Project, along with the SLF from Native American Heritage Commission and any associated archeological reports.

Manteca 2043 General Plan

According to the Manteca 2043 General Plan EIR, there are 95 identified cultural resources within the Planning Area spanning both the prehistoric and historic periods. Six (6) additional built resources are identified in the San Joaquin County Historic Property Data File Directory. There are no properties listed on the National Register of Historic Places or the California Register of Historic places. The Manteca 2043 General Plan Resource Conservation Element lists the following goal and policies relating to Cultural Heritage:

Goal RC-10 Preserve and enhance Manteca's archaeological and historic resources for their aesthetic, educational and cultural values; and respect Manteca's Native American heritage.

> *Policy RC-100.1 Protect, and support efforts of community members and organizations to protect, important historic resources and use these resources to promote a sense of place and history in Manteca.*
>
> *Policy RC-10.2 Encourage historic resources to remain in their original use whenever possible. The adaptive use of historic resources is preferred, particularly as museums, educational facilities, or visitorserving uses, when the original use can no longer be sustained. Older residences may be converted to office/retail use in commercial areas and to tourist or business use, so long as their historical authenticity is maintained or enhanced.*
>
> *Policy RC-10.3 Do not approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by CEQA and the National Historic Preservation Act.*
>
> *Policy RC-10.4 Require that the proponent of any development proposal in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with the California Archaeological Inventory, Stanislaus State University to determine the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded.*
>
> *Policy RC-10.5 Work with property owners seeking registration of historical structures as Historic Landmarks or listing on the Register of Historic Sites.*
>
> *Policy RC-10. Encourage the voluntary identification, conservation, and reuse of historical structures, properties, and sites with special and recognized historic, architectural, or aesthetic value.*

Policy RC-10.6 *Support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved intact, the City shall seek to preserve the building facades*

Policy RC-10.7 *Support and promote annual festivals and community events that celebrate Manteca's cultural heritage.*

Policy RC-10.8 *Encourage and support community art projects, including murals, sculptures, educational programs, and events that highlight Manteca's cultural and historic heritage.*

Policy RC-10.9 *Review new development projects and work in conjunction with the California Historical Resources Information System to determine whether project areas contain known archaeological resources, either prehistoric and/or historic-era, or have the potential for such resources.*

Policy RC-10.10 *Ensure that human remains are treated with sensitivity and dignity, and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98.*

Policy RC-10.11 *Consistent with State, local, and tribal intergovernmental consultation requirements such as SB 18, consult as necessary with Native American tribes that may be interested in proposed new development and land use policy changes.*

Implementation Measure RC-10a *Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.*

Implementation Measure RC-10b *Require a cultural and archaeological survey prior to approval of any project which would require excavation in an area that is sensitive for cultural or archaeological resources and require a paleontological survey in an area that is sensitive for paleontological resources. If significant cultural, archaeological, or paleontological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as documentation and conservation, to reduce adverse impacts to the resource.*

Implementation Measure RC-10c *Require all City permits for reconstruction or modification of existing buildings to include the submittal of a photograph of the existing structure or site. The intent is to create a record of the buildings in the City over time. A photograph will also be required for vacant sites that will be modified with new construction of new buildings or other above ground improvements.*

Implementation Measure RC-10d *Incorporate significant archaeological sites, where feasible, into open space areas.*

Implementation Measure RC-10e *Continue to inventory historic sites throughout the City. The inventory should contain a narrative of the significant facts regarding the historic events or persons associated with the site, and pictures of the site.*

Implementation Measure RC-10f Continue to support the local historical society in their efforts to:

- *Archive historic information, including photographs, publications, oral histories and other materials, and*
- *make the information available to the public for viewing and research.*

Implementation Measure RC-10g Encourage the placement of monuments or plaques that recognize and celebrate historic sites, structures, and events.

Implementation Measure RC-10h Adopt and implement a historical preservation ordinance.

Implementation Measure RC-10i Adopt and implement a historic building code, as authorized by state law.

Implementation Measure RC-10j Require all new development, infrastructure, and other grounddisturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- *If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for recommended protection and preservation measures; and work may only resume when recommended protections are in place and have been approved by the Development Services Director;*
- *If construction or grading activities result in the discovery of significant tribal cultural resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist and Native American tribes on the City's SB 18 and AB 52 list for recommended protection and preservation measures and work may only resume when recommended protections are in place and have been approved by the Development Services Director; and*
- *If human remains are discovered during any ground disturbing activity, work shall stop until the Development Services Director and the San Joaquin County Coroner have been contacted; if the human remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants have been consulted; and work may only resume when measures to relocate or preserve the remains in place, based on the above consultation, have been taken and approved by the Development Services Director.*

Implementation Measure RC-10k Collaborate with the Chamber of Commerce and other interested community groups to support and promote community festivals and events.

4.5.2 Impact Assessment

Would the Project:

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

Less than Significant Impact. Under CEQA Guidelines Section 15064.5, a historical resource is any building, structure, object, prehistoric or historic archaeological site, or district that is listed in, or eligible for listing in, the

California Register of Historical Resources or listed in a local historical resources inventory. It can also be any other resource that the lead agency determines to be historically significant.

The Project site is mostly vacant. A single-family residential dwelling currently occupies one of the lots (APN 222-100-14). Based on real estate data, the single-family residential dwelling was constructed in 1987. The other two lots (APNs 222-100-09 and 222-100-15) are currently vacant. According to historical aerial imagery, APN 222-100-09 has been vacant for several decades and appears to be regularly disced for vegetation control. Additionally, APN 222-100-15 had historically been occupied by a single-family residential structure up through the year 2011 when the structure was demolished. The lot has sat vacant since.

A review of the California Historical Resources Information System (CHRIS) records was conducted by the Central California Information Center (CCIC) for the Project site and its immediate vicinity. The search, which included a review of Class III pedestrian reconnaissance surveys, archival data, and other records, identified no formally recorded prehistoric or historic archaeological resources, or historic buildings or structures within the Project area.

Two (2) historic-era buildings (constructed in 1947 and 1950) were identified near the Project site. However, these properties have been previously evaluated and determined ineligible for listing on the National Register of Historic Plans, the California Register of Historical Resources, or for local designation. In addition, the CHRIS record search did not identify any resources of known value to local cultural groups. While no previous investigations have occurred on the Project site, the site falls within the area of several overview studies. Therefore, while unlikely, there is a possibility that an unidentified cultural resource could be present.

Tribal consultation pursuant to AB 52 and SB 18 was conducted with seven (7) tribes identified by the NAHC as having traditional lands or cultural places within San Joaquin County. Consultation for AB 52 ended on February 13, 2025, and consultation for SB 18 ended on April 14, 2025. On February 11, 2025, a response was received from the Confederated Villages of Lisjan Nation Tribe requesting copies of the final CHRIS and EIR for the project, along with the SLF from Native American Heritage Commission and any associated archeological reports.In addition, the NAHC Sacred Lands File check was negative. A negative SLF check means that the NAHC did not find any records of Native American cultural resources, such as sacred sites, traditional cultural properties, or burial grounds, within the area requested for the search. While there are no records of Native American cultural resources on the Project site, it is possible that sites exist that have not been formally documented or reported to the NAHC.

As a new development involving ground-disturbing activities, the Project will be conditioned to comply with General Plan *Implementation Measure RC-10j* (Environmental Setting). This measure, which is designed to protect potential, unanticipated cultural resources, directly addresses the concerns raised in Section 15064.5 of the CEQA Guidelines regarding impacts to archaeological resources, including tribal cultural resources and human remains. Specifically, compliance with RC-10j would ensure that:

- Discovery Procedures: If archaeological artifacts, unique paleontological resources, or tribal cultural resources are discovered during construction, work within 100 feet of the find will immediately cease, and the City of Manteca's Development Services Director will be notified. A qualified professional (archaeologist, paleontologist, or historian, as appropriate) and, in the case of tribal cultural resources, potentially affected Native American tribes, will evaluate the find and recommend appropriate protection and preservation measures. Work will only resume after these measures are in place and approved by the Development Services Director.

- Human Remains Protocol: If human remains are discovered, work will stop, and the Development Services Director and the San Joaquin County Coroner will be notified. If the remains are determined to be of Native American origin, the Native American Heritage Commission and Most Likely Descendants will be consulted. Work will only resume after appropriate measures for relocation or preservation, based on this consultation, are in place and approved by the Development Services Director.

Therefore, conditioning the Project to comply with General Plan Implementation Measure RC-10j would ensure that any potential impacts to undiscovered cultural resources, including archaeological resources, tribal cultural resources, and human remains, are identified, evaluated, and mitigated to a less than significant level, consistent with CEQA requirements. Impacts would be less than significant.

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

Less than Significant Impact. Under the CEQA Guidelines, specifically Section 15064.5, an archaeological resource is defined as any material evidence of past human life or activities. This encompasses a broad range of physical remains including prehistoric archeological sites, historic archeological sites, and traditional cultural properties. A "substantial adverse change" generally means that the project would destroy, damage, or alter the resource in a way that diminishes its historical, cultural, or scientific value.

As discussed under criterion a), a CHRIS record search, tribal consultation, and a Sacred Lands File check were conducted for the Project site and surrounding area. While these efforts did not identify any resources within the project boundaries, the possibility of encountering previously unknown archaeological resources, as defined by CEQA Guidelines Section 15064.5, during ground-disturbing activities cannot be entirely discounted.

To address this possibility, and consistent with recommendations from the Central California Information Center (CCIC), the Project would be conditioned to comply with General Plan ***Implementation Measure RC-10j*** (Environmental Setting). This measure, which is designed to protect potential, unanticipated cultural resources, directly addresses the concerns raised in Section 15064.5 of the CEQA Guidelines regarding impacts to archaeological resources, including tribal cultural resources and human remains.

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

Less Than Significant Impact. While no evidence suggests the presence of human remains on the Project site, the possibility of encountering previously unknown burials during ground-disturbing activities cannot be entirely discounted. Should human remains be discovered during construction, all work in the immediate vicinity would be required to cease, and the County Coroner would be notified immediately, as required by California Health and Safety Code Section 7050.5. If the Coroner determines the remains are of Native American origin, the NAHC would be contacted pursuant to Public Resources Code Section 5097.98. In accordance with CCR Section 15064.5(e), consultation with the NAHC and any Most Likely Descendant (MLD) would be conducted to determine the appropriate treatment and disposition of the remains. Adherence to these regulations, which are designed to protect human remains, including those interred outside formal cemeteries, would ensure that any potential impacts are less than significant.

4.5.3 Mitigation Measures

None required.

4.6 ENERGY

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

4.6.1 Environmental Setting

Appendix F of the CEQA Guidelines requires consideration of energy implications in project decisions, focusing on avoiding or reducing inefficient, wasteful, and unnecessary energy consumption (Public Resources Code Section 21100(b)(3)). A project is deemed inefficient, wasteful, or unnecessary if it:

- Violates existing energy standards.
- Negatively impacts local and regional energy supplies, requiring additional capacity.
- Negatively affects peak and base period electricity and other energy demands.
- Adversely affects energy resources.

To assess a project's energy impacts and determine significance, Appendix F outlines the following criteria:

1. **Energy Requirements and Efficiency:** Quantify the project's energy requirements and use efficiencies by amount and fuel type for each stage (construction, operation, maintenance, and removal). Consider the energy intensiveness of materials, where relevant.
2. **Impact on Energy Supplies and Capacity:** Analyze the project's effects on local and regional energy supplies and the need for additional capacity.
3. **Impact on Peak and Base Period Demands:** Evaluate the project's influence on peak and base period demands for electricity and other energy forms.
4. **Compliance with Energy Standards:** Determine the project's compliance with existing energy efficiency standards.
5. **Impact on Energy Resources:** Assess the project's effects on overall energy resources.
6. **Transportation Energy Use:** Analyze the project's projected transportation energy use requirements and its incorporation of efficient transportation alternatives.

Building Energy Efficiency Standards – Title 24

The California Energy Commission updates the Building Energy Efficiency Standards (Title 24, Parts 6 and 11) every three years as part of the California Code of Regulations. The standards were established in 1978 in an effort to reduce the state's energy consumption. They apply for new construction of, and additions and alterations to, residential and nonresidential buildings and relate to various energy efficiencies including but not limited to ventilation, air conditioning, and lighting. The California Green Building Standards Code (CALGreen), Part 11, Title 24, California Code of Regulations, was developed in 2007 to meet the state goals for reducing Greenhouse Gas emissions pursuant to AB32. CALGreen covers five (5) categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality. [13] The 2022 Building Energy Efficiency Standards went into effect on January 1, 2023. Additionally, the California Air Resources Board (CARB) oversees air pollution control efforts, regulations, and programs that contribute to reduction of energy consumption. Compliance with these energy efficiency regulations and programs ensures that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources.

California Energy Action Plan

The Energy Action Plan (EAP) for California was approved in 2003 and updated in 2008. The California Public Utilities Commission (PUC) approved the Energy Action Plan (EAP) for California in 2003, with an update in 2008. The 2008 EAP established goals and next steps to integrate and coordinate energy efficiency demand and response programs and actions. [14]

Methodology

CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions from land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies mitigation measures to reduce criteria pollutant and GHG emissions.

4.6.2 Impact Assessment

Would the Project:

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

Less than Significant Impact. The Project would consist of the development of a 4-story, 44-unit multi-family residential apartment building with a separate office building on three (3) parcels totaling 1.67 acres. Energy would be consumed through Project construction and operations. Energy outputs for short-term construction and long-term operations were estimated using CalEEMod (Appendix A). Traffic impacts related to vehicle trips were

[13] California Department of General Services. (2020). 2019 California Green Building Standards Code. Accessed on February 19, 2025, https://codes.iccsafe.org/content/CGBC2019P3
[14] State of California. (2008). Energy Action Plan 2008 Update. Accessed on February 19, 2025, https://docs.cpuc.ca.gov/word_pdf/REPORT/28715.pdf

considered through a Vehicle Miles Traveled (VMT) analysis contained in Section 4.17. Results are summarized in Table 4-7. Based on the data, the energy demand associated with the proposed Project would be less than one (1) percent of San Joaquin County's total demand (*Criterion 1*).

Table 4-7 Project Energy Consumption

Energy Type[1]	Project Annual Energy Consumption	San Joaquin County Annual Energy Consumption	Project Percentage of County Consumption
Electricity[2]	0.198784 GWh	5771.280050 GWh	0.0034%
Natural Gas[2]	606.870 MMBTu	18,729,939.7 MMBTu	0.0032%

Notes:

1. Pacific Gas & Electric Company (PG&E) would serve the site for both electricity and natural gas.

2. Energy consumption data for San Joaquin County is provided by the California Energy Commission, "Electricity Consumption by County" accessed on February 19, 2025, http://ecdms.energy.ca.gov/elecbycounty.aspx and "Gas Consumption by County" accessed on February 19, 2025, https://ecdms.energy.ca.gov/gasbycounty.aspx

Construction

Construction would be short-term and temporary. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities. Construction activities would include removal/demolition of all on-site trees and existing structures/improvements, typical site preparation, grading, paving, architectural coating, and trenching – all of which would require the transportation of building materials and equipment. Therefore, the primary source of energy for construction activities would be diesel and gasoline (i.e., petroleum fuels). All construction equipment shall conform to current emissions standards and related fuel efficiencies including applicable CARB regulations (Airborne Toxic Control Measure), California Code of Regulations (Title 13, Motor Vehicles), and Title 24 standards. Compliance with existing regulations would ensure that the short-term, temporary construction activities would not result in wasteful, inefficient, or unnecessary consumption of energy resources consistent with *Criterion 4*.

Operations

Operations would involve heating, cooling, equipment, and vehicle trips. Energy consumption related to operations would be associated with natural gas, electricity, and fuel. As for new construction, the Project would also be required to meet all mandatory requirements for residential buildings as outlined in the 2022 Energy Code. Mandatory requirements apply to building envelopes, ventilation and indoor air quality, space conditioning systems, water heating systems, outdoor and indoor lighting, electric power distribution, covered process for pools, solar ready buildings, and electric ready buildings. Compliance would be verified through the building permit process. Therefore, the Project would meet mandatory state building energy codes, which are designed to reduce wasteful, inefficient, or unnecessary consumption of energy sources, consistent with *Criterion 4*.

Energy consumption and peak demand for the state are forecasted in *Volume IV – California Energy Demand Forecast* of the CEC's Integrated Energy Policy Report. As shown in Figure 10 and Figure 4 of the Volume IV Report, the CEC forecasts a 1.3 to 2.3 percent annual average growth rate for electricity and a 0.1 to 0.9 percent annual average growth rate for natural gas between 2021 and 2030. The Project's anticipated operational energy consumption for electricity and natural gas are shown in Table 4-7. The anticipated consumption of electricity and natural gas would represent 0.0034 percent and 0.0032 percent based on Countywide usage, which would be significantly below CEC's forecast. Therefore, the Project would not require additional energy capacity or supplies

in accordance with *Criterion 2*. In addition, as a residential development, energy consumption can be expected to peak in the day similar to other residential developments. Through compliance with energy conservation requirements under the 2022 Energy Code, the Project would not result in unique or more intensive peak or base period electricity demand in accordance with *Criterion 3*.

Furthermore, Pacific Gas & Electric Company (PG&E), the city's electricity provider, is subject to the state's Renewable Portfolio Standard (RPS) which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable resources to 33 percent of total procurement by 2020 to 60 percent of total procurement by 2030. The increase in reliance of renewable resources further ensures that the Project would not result in wasteful, inefficient, or unnecessary consumption of energy sources, consistent with *Criterion 5*.

Development of the Project Site would also result in fuel consumption through vehicle trips. The Project would generate an estimated 741,356 annual vehicle miles traveled (VMT) per CalEEMod, which would consume approximately 32,373 gallons of fuel per year (741,356 miles divided by 22.9 miles per gallon). This is expected to account for less than one (1) percent of diesel and gasoline consumed from vehicle trips in San Joaquin County. Therefore, energy usage associated with vehicle trips for the proposed Project would be minimal in comparison to the gasoline and diesel fuel consumption for the County. In addition, the Project does not propose any unusual features that would result in excessive long-term operational fuel consumption (*Criterion 2*). Further, annual energy use related to vehicles is expected to decrease over time as a result of vehicle fuel efficiency standards.

Therefore, the Project would not cause wasteful, inefficient, and unnecessary consumption of building energy during Project operation, or preempt future energy development or future energy conservation. A less than significant impact would occur.

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

Less than Significant Impact. As discussed under criterion a), the construction and operations of the Project would be subject to compliance with applicable energy efficiency regulations including CALGreen, Title 24, and CARB. Additionally, the General Plan Open Space and Conservation Element established policies to reduce and conserve energy use in existing and new development, including adopting incentives for green building standards and ensuring City code allow for green building techniques. Since the General Plan energy conservation policies are implemented at the city level, the Project would not conflict with said policies. In addition, state law ensures construction vehicle idling will be limited. Therefore, through compliance, the Project would not conflict with or obstruct any state or local plan for energy efficiency and a less than significant impact would occur as a result of the Project.

4.6.3 Mitigation Measures

None required.

4.7 GEOLOGY AND SOILS

	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: 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.				X
	ii. Strong seismic ground shaking?			X	
	iii. Seismic-related ground failure, including liquefaction?			X	
	iv. Landslides?			X	
b)	Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				X
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

4.7.1 Environmental Setting

The City of Manteca is located in the central portion of the Great Valley Geomorphic Provence, which is identified as a trough, bounded by the Sierra Nevada to the east and the Coast Ranges on the west. [15] A brief discussion of the likelihood of seismic activities occurring in the City's Planning Area, inclusive of the Project Site, is provided below. The discussion is based on the 2022 San Joaquin County Multi-Jurisdictional Hazard Mitigation Plan and the Manteca 2043 General Plan Update Draft Environmental Impact Report (EIR).

Faulting

There are no known active faults in the City's Planning Area.[16] The nearest active faults to the Planning Area are an unnamed fault approximately five (5) miles to the west of Manteca, the San Joaquin fault, approximately 15 miles to the southwest, and the Midway fault, approximately 20 miles to the west.[17] No Alquist-Priolo Earthquake Fault zoning has been established for the City's Planning Area. The nearest Alquist-Priolo fault zone is the Greenville fault zone, approximately 25 miles southwest. Due to the distance from an active fault, there is low potential for ground rupture in the City.

Ground Shaking

The City of Manteca has not experienced significant ground shaking within the Planning Area, however, significant earthquakes have been documented within the region. Additionally, the potential for ground shaking within California is expected, even in areas with limited past occurrences.

Liquefaction

Liquefaction primarily occurs in areas of recently deposited sands and silts and in areas of high groundwater levels (where the water table is 30 feet below the surface). Susceptible areas include sloughs and marshes that have been filled in and developed over. In addition to necessary soil conditions, liquefaction is induced by intense and prolonged ground shaking, usually above a ground acceleration of 0.3g before liquefaction occurs within sandy soil with relative densities typical of the San Joaquin alluvial deposits. Based on historic aerial imagery and search of the National Wetlands Inventory (Section 4.10), Project site does not include former or current waters (streams, drainages, wetlands) that have been drained, filled, and developed. According to the GP DEIR, soil data from within the Planning area suggests that the potential for liquefaction ranges from low to high given the high sand content in some soils and the moderately-high water table.

Landslides

Landslides include rockfalls, slope failures, and mud/debris flows. Several factors contribute to the potential for landslides, including geological conditions, drainage, slope, and vegetation. As the Planning Area is essentially flat, there is limited potential for landslides.

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[15] City of Manteca. (2022). Draft Environmental Impact Report 2043 General Plan Update (SCH No. 2020019010).
[16] According to the California Department of Conservation, *"An active fault, for the purposes of the Alquist-Priolo Act, is one that has ruptured in the last 11,000 years."*
[17] California Department of Conservation. "CGS Seismic Hazard Program: Alquist-Priolo Fault Hazard Zones." Accessed on January 17, 2025, https://gis.data.ca.gov/maps/ee92a5f9f4ee4ec5aa731d3245ed9f53/explore?location=37.213952%2C-117.946341%2C7.19

Erosion

Wind and flowing water are the primary agents of erosion in the San Joaquin Valley. Soil reports indicate that there is low to moderate potential for erosion, with water erosion hazard being considered low and wind erosion potential ranging from moderate to high.

Ground Subsidence

Ground subsidence is the settling or sinking of surface soil deposits with little or no horizontal motion. While subsidence can occur naturally, it is often accelerated as a result of human activities such as pumping water, oil, and gas. According to the GP DEIR, subsidence is not identified as an issue within the Planning Area.

Subsurface Soils

A search of the Web Soil Survey by the USDA Natural Resources Conservation Service indicates that the Project Site comprises of one (1) soil type: Tinnin loamy coarse sand, with 0 to 2 percent slopes, is well drained, with no potential of flooding or ponding, and a depth to the water table is more than 80 inches. [18]

California Building Code

The California Code of Regulations (CCR) Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The California Building Code incorporates by reference the International Building Code with necessary California amendments. About one-third of the text within the California Building Standards Code has been tailored for California earthquake conditions. These standards are applicable to all new buildings and are required to provide the necessary safety from earthquake related effects emanating from fault activity.

Manteca 2043 General Plan

The Manteca 2043 General Plan includes policies relevant to geologic and seismic hazards in the Safety Element, as listed below.

Goal S-2 *Prevent loss of lives, injury, and property damage due to geological hazards and seismic activity and prevent disruption of essential services in the event of an earthquake.*

> ***Policy S-2.1*** *Enforce adopted regulations to identify and address potential hazards relating to seismic, geologic, and soils conditions.*
>
> ***Policy S-2.2*** *Regulate development in areas of seismic and geologic hazards to reduce risks to life and property associated with earthquakes, liquefaction, erosion, and expansive soils*.
>
> ***Policy S-2.3*** Require new development to mitigate potential impacts of geologic and seismic hazards, including uncompacted fill, liquefaction, and subsidence, through the development review process.

[18] United States Department of Agriculture Natural Resources Conservation Service. "Web Soil Survey." Accessed on January 17, 2025, https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Policy S-2.4 Continue to require professional inspection of foundation, excavation, earthwork, and other geotechnical aspects of site development during construction on those sites specified in geotechnical studies as being prone to moderate or greater levels of seismic or geologic hazard.

Implementation Measure S-2a Continue to require preparation of geotechnical reports for proposed development projects, public projects, and all critical structures. The reports should include, but not be limited to: evaluation of and recommendations to mitigate the effects of fault displacement, ground shaking, uncompacted fill, expansive soils, liquefaction, subsidence, and settlement. Recommendations from the report shall be incorporated into the development project to address seismic and geologic risks identified in the report.

Implementation Measure S-2b Review development proposals to ensure compliance with the current State building standards.

Implementation Measure S-2c Review development proposals to ensure compliance with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces such as earthquakes and wind.

Implementation Measure S-2d Review and update the City's inventory of potentially hazardous buildings and require any development or change in occupancy proposals to address hazards, through measures such as strengthening buildings, changing the use of the buildings to an acceptable occupancy level, or demolishing or rehabilitating the building.

4.7.2 Impact Assessment

Would the Project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Project site is not located within an Alquist-Priolo Earthquake Fault Zone, nor is there any other evidence of a known fault on or adjacent to the site. Therefore, the risk of fault rupture is considered negligible, and no impact would occur.

ii. Strong seismic ground shaking?

Less than Significant Impact. While the City of Manteca has not experienced significant ground shaking historically, the potential for seismic activity, including strong ground shaking, exists throughout California. Therefore, there is potential for the Project to expose people and structures to strong seismic ground shaking.

The Project would be required to comply with the current seismic design and construction standards of the California Building Code (CBC). These standards incorporate numerous provisions specifically designed to mitigate the effects of strong ground shaking, including requirements for reinforced foundations, shear walls, and ductile connections, for example. In addition, according to the General Plan *Implementation Measure S-2c*, the Project would be reviewed to ensure compliance with California Health and Safety Code Section 19100 et. seq. (Earthquake

Protection Law), which requires that buildings be designed to resist stresses produced by natural forces such as earthquakes and wind. Compliance with the CBC and General Plan would significantly reduce the potential for structural damage and collapse, thereby minimizing the risk of loss, injury, or death associated with ground shaking.

Therefore, while the potential for strong ground shaking exists in the region, adherence to the CBC's stringent seismic standards and General Plan policies would reduce the risk of substantial adverse effects, including loss, injury, or death, to a less than significant level. Impacts would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. While the Project site is primarily comprised of Tinnin loamy coarse sand, a soil type that can be susceptible to liquefaction under certain conditions, several factors reduce the risk at this specific location. The soil is well-drained, which minimizes the potential for prolonged saturation, a key factor in liquefaction. Additionally, coarse sands generally have a low fines content (silt and clay), which further reduces susceptibility. The depth to the water table is also relatively deep (more than 80 inches), which lessens the likelihood of saturation necessary for liquefaction. Historical aerial imagery and the National Wetlands Inventory also indicate no evidence of filled former or current water bodies (streams, drainages, wetlands) on the Project site, which are often associated with increased liquefaction risk.

Although no active earthquake faults are known to exist in Manteca, and the area has a limited severity for ground shaking, the potential for seismic activity and associated ground shaking exists in California. Therefore, there is potential for the Project to expose people and structures to strong seismic ground shaking as discussed under criterion a)-ii). The Project would be required to comply with the CBC, which includes stringent seismic design and construction standards. These standards incorporate provisions specifically designed to mitigate the effects of ground shaking and potential liquefaction, such as requirements for foundation design in liquefiable soils and soil stabilization techniques. Further, the Project would be required to adhere to the City of Manteca's grading and drainage standards, which would further minimize the risk of saturation and instability. Therefore, compliance with the CBC's seismic design standards and adherence to the City's grading and drainage requirements would reduce the risk of seismic-related ground failure, including liquefaction, to a less than significant level. Impacts would be less than significant.

iv. Landslides?

Less than Significant Impact. Landslides, encompassing rockfalls, slope failures, and mud/debris flows, are primarily triggered by a combination of factors, including steep slopes, unstable geological formations, inadequate drainage, and sometimes vegetation removal. The Project site's flat topography eliminates the most significant of these risk factors. In addition, the site consists of stable, native soils and is not located near any rivers, creeks, or other features that would increase the risk of landslides. Therefore, the potential for landslides at the Project site is considered negligible. Impacts would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Soil erosion and topsoil loss could occur due to both natural processes (wind, water) and human activities, such as construction. The Project would involve typical site preparation activities like grading and trenching, which have the potential to cause short-term soil disturbance and erosion during construction. Water use during construction could also contribute to this potential.

Because the Project site is larger than one (1) acre, a Storm Water Pollution Prevention Plan (SWPPP) is required to be developed and implemented by a certified Qualified SWPPP Developer (QSD). The SWPPP would include a detailed assessment of potential erosion risks associated with construction activities and would specify a range of Best Management Practices (BMPs) to control erosion and sediment runoff. BMPs would be implemented throughout the construction process to minimize soil erosion and topsoil loss. In addition to short-term construction-related erosion, the Project's design would also incorporate measures to prevent ongoing erosion after construction is complete. These measures include permanent landscaping and engineered drainage systems. Therefore, through the implementation of a comprehensive SWPPP with appropriate BMPs during construction, and the incorporation of long-term erosion control measures in the Project design, the potential for substantial soil erosion or topsoil loss will be minimized to a less than significant level. Impacts would be less than significant.

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?

Less than Significant Impact. Due to the site's flat topography, stable, native soils and distance to rivers, creeks, or other features that would increase the risk of landslide, the potential for landslides is considered negligible.

Lateral spreading is typically associated with liquefaction in loose, saturated sands. While the site contains sandy soils, the soil is well-drained, which minimizes the potential for prolonged saturation, a key factor in liquefaction. Additionally, coarse sands generally have a low fines content (silt and clay), which further reduces susceptibility. The depth to the water table is also relatively deep (more than 80 inches), which lessens the likelihood of saturation necessary for liquefaction. Historical aerial imagery and the National Wetlands Inventory also indicate no evidence of filled former or current water bodies (streams, drainages, wetlands) on the Project site, which are often associated with increased liquefaction risk. Therefore, the potential for lateral spreading is considered low.

Subsidence is often associated with areas of groundwater withdrawal or oil/gas extraction. There is no history of such activity on or near the Project site, and the soil type lacks the high silt or clay content that makes soils susceptible to significant subsidence. The risk of subsidence is therefore considered low.

As discussed previously, the potential for liquefaction is considered low due to the well-drained soils, relatively deep (more than 80 inches) depth to water table, and lack of evidence of filled former or current water bodies (streams, drainage, wetlands) which are often associated with increased liquefaction risk. In addition, the Project would be required to comply with the CBC, which includes stringent seismic design and construction standards to mitigate the effects of ground shaking and potential liquefaction, such as requirements for foundation design in liquefiable soils and soil stabilization techniques. Further, the Project would be required to adhere to the City of Manteca's grading and drainage standards, which would further minimize the risk of saturation and instability. Therefore, compliance with the CBC's seismic design standards and adherence to the City's grading and drainage requirements would reduce the risk of seismic-related ground failure, including liquefaction, to a less than significant level.

Soil collapse can occur in areas with expansive clays or highly compressible. The soils on the Project site are not expansive clays and have been shown to have adequate bearing capacity. The risk of collapse is therefore considered low.

Therefore, considering the site's soil characteristics, flat topography, and compliance with the CBC and grading and drainage requirements, the potential for unstable soil conditions or geologic hazards is less than significant. Impacts would be less than significant.

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

Less than Significant Impact. Table 18-1-B of the Uniform Building Code (UBC) classifies soils based on their expansion potential, typically using parameters such as the plasticity index or expansion index. Soils with a high clay content and a high plasticity index are classified as expansive, as they exhibit significant shrink-swell behavior. The Project site is primarily comprised of Tinnin loamy coarse sand. This soil type is characterized by a predominance of sand-sized particles and a low percentage of silt and clay. Expansive soils, in contrast, are characterized by a high clay content. Therefore, based on its general characteristics, Tinnin loamy coarse sand is not expected to be expansive. Impacts would be less than significant.

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

No Impact. The Project would be required to connect to the municipal sewer system for wastewater disposal. Therefore, no permanent septic tanks or alternative wastewater disposal systems would be installed, and no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact. The Project site consists of mostly vacant land, with a single-family dwelling constructed in 1987 on one lot (APN 222-100-14) and two other vacant lots (APNs 222-100-09 and 222-100-15). Historical aerial imagery indicates that APN 222-100-09 has been vacant and regularly disced for vegetation control for several decades, while APN 222-100-15 contained a residential structure until 2011, after which it was demolished. No known unique paleontological resources or unique geologic features have been identified on the Project site. The site's relatively flat topography and general geological context do not suggest the presence of any such features.

However, there is the potential for encountering undiscovered resources during ground-disturbing activities. To reduce potential impacts, the Project would be conditioned to comply with General Plan ***Implementation Measure RC-10j***. While RC-10j primarily focuses on cultural resources, its provisions for halting work and professional evaluation upon discovery of any significant resource also apply to paleontological resources. Specifically, if any potential paleontological resources (e.g., fossilized bones, teeth, or other remains) are encountered during construction, work within 100 feet of the find will immediately cease, and the City of Manteca's Development Services Director will be notified. A qualified paleontologist will then be retained to evaluate the find and recommend appropriate protection and preservation measures. Work will only resume after these measures are in place and approved by the Development Services Director. The discovery procedures outlined in Implementation ***Measure RC-10j*** would also apply to any potentially encountered unique geologic features.

Therefore, while no known paleontological resources or unique geologic features exist on the site, the Project's adherence to General Plan ***Implementation Measure RC-10j***, including the provision for professional evaluation of

any discoveries, would ensure that potential impacts to *any undiscovered resources* are identified, evaluated, and reduced to a less than significant level. Impacts would be less than significant.

4.7.3 Mitigation Measures

None required.

4.8 GREENHOUSE GAS EMISSIONS

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

4.8.1 Environmental Setting

In assessing the significance of impacts from GHG emissions, Section 15064.4(b) of the CEQA Guidelines states that a lead agency may consider the following:

- The extent to which the project may increase or reduce GHG emissions as compared to the environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The California Air Resources Board (CARB) 2022 Climate Change Scoping Plan and guidance from the SJVAPCD are discussed below and are utilized as thresholds of significance.

2022 Climate Change Scoping Plan

The CARB 2022 Climate Change Scoping Plan is the adopted statewide plan for reduction and mitigation of GHGs to implement Assembly Bill (AB) 1279. AB 1279 was issued on August 12, 2022, to require California to achieve "net zero greenhouse gas emissions" as soon as possible and to further reduce anthropogenic GHG emissions thereafter. It sets a statewide goal to reduce emissions 85% below 1990 levels no later than 2045.

Consequently, the Scoping Plan involves several measures for cost-effective reduction of GHG emissions, including continuing existing programs such as Renewable Portfolio Standard, Advanced Clean Cars, Low Carbon Fuel Standard, etc., and achieving new mandates to decarbonize several sectors. Along with reducing emissions, environmental justice policies are included to address the ongoing air quality disparities.

Appendix D of the 2022 Scoping Plan include recommendations to build momentum for local government actions to align with State goals, including through CEQA review. The Appendix outlines the priority GHG reduction

strategies for local governments, including transportation electrification, VMT reduction, and building decarbonization. [19]

SJVAPCD CEQA Air Quality Guidelines

The SJVAPCD's Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA (2009) provides screening criteria for climate change analyses, as well as draft guidance for the determination of significance. [20,21] These criteria are used to evaluate whether a project would result in a significant climate change impact (see below). Projects that meet one of these criteria would have less than significant impact on the global climate.

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions? If no, then:
- Does the project achieve 29% GHG reductions by using approved Best Performance Standards (BPS)? If no, then
- Does the project achieve AB 32 targeted 29% GHG emission reductions compared with Business As Usual (BAU)?

Assembly Bill (AB) 32 was enacted by the California State legislature in 2006 with the aim to reduce GHG emissions to levels of 1990 by 2020. Recommended actions to achieve these aims were adopted by the California Air Resources Board (CARB) in 2008 (i.e., the Climate Change Scoping Plan). However, the 29% GHG emission reductions compared to BAU threshold is outdated since it is aimed to meet AB 32's 2020 goals, thus this threshold would not be used for analysis.

San Joaquin Valley Air Pollution Control District

SJVAPCD adopted *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* and the policy *District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* in 2009. It recognized that project-specific emissions are cumulative and could be considered cumulatively considerable without mitigation. SJVAPCD suggested that the requirement to reduce GHG emissions for all projects is the best method to address this cumulative impact.

The SJVAPCD requires quantification of GHG emissions for all projects which the lead agency has determined that an EIR is required. Although an EIR is not required for the Project, the GHG emissions are quantified below. Short-term construction and long-term operational GHG emissions for project buildout were estimated using CalEEMod™ (version 2022.1.1.28). (See Appendix A). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use),

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[19] California Air Resources Board. (2022). 2022 Scoping Plan Appendix D. Accessed on January 17, 2025, https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf

[20] San Joaquin Valley Air Pollution Control District. (2009). Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. Accessed January 17, 2025, http://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf.

[21] San Joaquin Valley Air Pollution Control District. (2000). Environmental Review Guidelines: Procedures for Implementing the California Environmental Quality Act. Accessed January 17, 2025, http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20_August%202000_.pdf

as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., $MTCO_2e$), based on the global warming potential of the individual pollutants.

4.8.2 Impact Assessment

Would the Project:

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

Less than Significant Impact. The 2025 CEQA Guidelines do not establish a quantitative threshold of significance for GHG impacts, leaving lead agencies the discretion to establish such thresholds for their respective jurisdictions. The Project is assessed based on its consistency with the CARB's latest adopted Scoping Plan, including the Project's compliance with relevant Scoping Plan measures, in addition to the GHG-related policies in the General Plan.

The CARB Scoping Plan complies with AB 1276 GHG reduction targets toward achieving carbon neutrality by 2045 and reducing anthropogenic emissions to 85% below 1990 levels by 2045. Therefore, consistency with the Scoping Plan would also demonstrate consistency with carbon neutrality requirements of AB 1279.

This qualitative assessment analyzes the Project's compliance with the applicable plans, policies, and regulations for the purpose of reducing GHGs to determine whether the project would have a significant impact on the environment relative to GHGs. Short-term construction and long-term operational GHG emissions for project buildout were estimated using CalEEMod™ (version 2022.1.1.28). See Appendix A for output files. The Project's estimated construction and operation-related GHG emissions are provided for the purposes of public disclosure.

Construction Emissions

Regarding construction, the SJVAPCD does not recommend assessing pollution associated with construction, as pollution-related construction will be temporary. These construction GHG emissions are a one-time release. As such, it can be anticipated that these construction emissions would not generate a significant contribution to global climate change over the lifetime of the Project. The overall construction GHG emissions associated with buildout of the Project is 237.7 MT CO2e based on the CalEEMod run.

Operational Emissions

Regarding the long-term operational related GHG emissions, the estimated operational emissions for buildout of the Project incorporate the potential area source and vehicle emissions, and emissions associated with utility and water usage, and wastewater and solid waste generation. The annual operational GHG emissions associated with buildout of the Project is 2,978 MT CO2e based on the CalEEMod run.

Further, the Project would not exceed the thresholds of significance for construction or operational emissions as discussed in Section 4.3. Additionally, as discussed in more detail below, the Project would be generally consistent with the applicable goals and policies related to GHG reduction measures, including CARB's 2022 Scoping Plan and SJVAPCD guidelines, and the Manteca 2043 General Plan goals and policies that aim to reduce air emissions and improve air quality, which reduces GHG emissions as a result. Cumulatively, these emissions would not generate a significant contribution to global climate change over the lifetime of the proposed Project. As such, it can be

determined that the Project would not occur at a scale or scope with potential to contribute substantially or cumulatively to the generation of GHG emissions and therefore the impact would be less than significant.

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

Less than Significant Impact. The following analyzes the Project's compatibility of the Project with the 2022 Scoping Plan and the Manteca 2043 General Plan.

Consistency with the 2022 Climate Change Scoping Plan

Based on the evaluation shown in Table 4-8, the Project is consistent with the reduction measures identified in the 2022 Scoping Plan. The reduction measures are derived from the 2022 Scoping Plan *Table 1 – Priority GHG Reduction Strategies*, which provides three (3) priority areas to assist jurisdictions with developing local climate action plans.

Table 4-8 Scoping Plan Priority GHG Reduction Strategies Consistency Analysis

Priority Areas	Priority GHG Reduction Strategies	Consistency/Applicability Determination
Transportation Electrification	Convert local government fleets to ZEVs and provide EV charging at public sites.	**Not Applicable.** The Project proposes residential units and is thus not intended to be accessible to the public.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
VMT Reduction	Reduce or eliminate minimum parking standards.	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
	Implement Complete Streets policies and investments, consistent with General Glan Circulation Element requirements.	**Consistent.** The Project would result in off-site improvements on Wawona Street including sidewalks and landscaping. The Project would also provide bicycle parking.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.	**Consistent.** The Project would enhance access to public transit by strategically locating high-density housing near existing transit infrastructure. This proximity encourages the use of public transportation and reduces reliance on private vehicles.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.	**Consistent.** The Project promotes increased access to clean mobility options through several key features and investments including EV charging, bicycle facilities, and pedestrian enhancements.

	Implement parking pricing or transportation demand management pricing strategies.	**Not Applicable.**
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)	**Consistent.** The Project proposes a General Plan Amendment and Rezone to amend the land use and zoning designations from low density residential and commercial to high density residential. The Project site is a 1.67 acre infill site that would be developed with 44 multi-family units.
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)	**Consistent.** The Project would develop a primarily vacant infill site with higher density residential uses. The Project would not convert greenfield land to urban uses.
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project. In addition, the Project does not include retrofits for existing buildings.
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project. In addition, the Project does not include retrofits for existing buildings.
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing)	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings)	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.

Consistency with the Manteca 2043 General Plan

The Manteca 2043 General Plan established several policies to reduce greenhouse gas emissions and increase energy conservation. These policies are mostly implemented at the City level. The Project would be subject to energy efficiency regulations including CalGreen, Title 24, and CARB, as discussed in Section 4.6. As such, the Project would be generally consistent with the GHG-related policies identified in the General Plan.

Goal RC-4 Improve climate resiliency through reducing greenhouse gas emissions through sustainable energy, transportation, land use, and local government actions that maximize energy efficiency and reduce energy usage and greenhouse gas emissions.

Policy RC-4.1 Support the conservation of energy through comprehensive and sustainable land use, transportation, and energy planning, implementation greenhouse gas reduction measures, and inclusive public education and outreach regarding climate adaptation and greenhouse gas emissions to address opportunities to decrease emissions associated with growth, development, and local government operations.

Policy RC-4.2 Support and actively participate with the state, regional, and local agencies and stakeholders toward State greenhouse gas emission reduction goals.

Policy RC-4.4 Ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips.

Policy RC-4.5 Require private development to incorporate non-traditional nonpolluting renewable energy sources such as co-generation, wind, and solar, where feasible, to reduce dependence on fossil fuels and meet climate goals.

Policy RC-4.6 Require all new public and privately constructed buildings to exceed, where feasible, and comply with construction and design standards that promote energy conservation, including the most current "green" development standards in the California Green Building Standards Code.

Policy RC-4.7 Require expanded innovative and green building best practices, where feasible, including, but not limited to, LEED certification for all new development and retrofitting existing uses, and encourage public and private projects to exceed the most current "green" development standards in the California Green Building Standards Code.

Policy RC-4.8 Increase energy efficiency and conservation in public buildings and infrastructure.

Policy RC-4.9 Encourage the conservation of public utilities and use of renewable energy technologies in new development, rehabilitation projects, and in City buildings and facilities.

Policy RC-4.10 Encourage measures, including building siting and shading and use of shade trees, to reduce urban heat island effects.

Policy RC-4.11 Support state efforts to power electricity with renewable and zero carbon resources, such as solar and wind energy.

Policy RC4.12 Encourage the conservation of petroleum products.

Policy RC-4.13 Encourage the installation of renewable energy technologies serving agricultural operations.

In conclusion, the Project contains features that would reduce GHG emissions in compliance with CARB 2022 Climate Change Scoping Plan and the Manteca 2043 General Plan. As such, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and therefore the impact would be less than significant.

4.8.3 Mitigation Measures

None required.

4.9 HAZARDS AND HAZARDOUS MATERIAL

	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?			X	
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?			X	
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?			X	
e)	For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project Area?				X
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

4.9.1 Environmental Setting

For the purposes of this analysis, "hazardous materials" are defined as substances that pose a potential risk to human health or the environment due to their chemical or physical properties. These "injurious substances" include, but are not limited to, flammable liquids and gases, poisons, corrosives, explosives, oxidizers, radioactive

materials, and medical supplies and waste. These materials are commonly used or generated by various commercial, industrial, and even residential activities.

Hazardous materials are often categorized based on their primary hazard:

- Toxic: Substances that can cause adverse human health effects.
- Ignitable: Materials with the ability to burn.
- Corrosive: Substances that cause severe burns or damage to materials.
- Reactive: Materials that can explode or generate toxic gases.

Hazardous waste is defined in California Health and Safety Code Section 25141(b) as a hazardous material that has been discarded, abandoned, or is destined for recycling. The key factor is that the material is no longer intended for its original use. Improper handling of both hazardous materials and hazardous waste can result in significant environmental and public health hazards, including soil and groundwater contamination, as well as air pollution through the release of vapors, fumes, or dust. Specifically, soil or groundwater containing hazardous constituents above regulatory thresholds (as defined in California Code of Regulations, Title 22, Sections 66261.20-24) is classified as hazardous waste and requires special handling and disposal when excavated or pumped.

Hazardous waste generators can range from large industrial facilities to small businesses, institutions, and even households. Federal, state, and local agencies maintain databases of facilities that handle significant quantities of hazardous materials or generate hazardous waste. Facilities using certain classes of hazardous materials may be required to develop Risk Management Plans (RMPs) to protect surrounding land uses. The release of hazardous materials or hazardous waste is strictly regulated at the federal, state, and local levels, covering all aspects of their transport, use, storage, and disposal

Regulatory Setting

The California Environmental Protection Agency (CalEPA), established in 1991, plays a key role in environmental protection. CalEPA oversees the Unified Program, implemented locally by Certified Unified Program Agencies (CUPAs), which consolidates six environmental programs to regulate the handling of hazardous waste and materials. In San Joaquin County, the Environmental Health Department (SJCEHD) serves as the local CUPA. [22]

The SJCEHD has several responsibilities related to hazardous materials and waste, including:

- Inspecting facilities that handle hazardous materials, generate or treat hazardous waste, or operate underground or aboveground storage tanks (including petroleum tanks).
- Overseeing facilities subject to the California Accidental Release Program.
- Enforcing the Hazardous Waste Control Act through its Hazardous Waste Generator Program.
- Issuing permits to businesses that handle hazardous materials or waste above specific quantity thresholds (55 gallons, 500 pounds, or 200 cubic feet of compressed gas, whichever is greater).

[22] San Joaquin County Environmental Health Department. Certified Unified Program Agency (CUPA). Accessed on January 17, 2025, https://www.sjgov.org/department/envhealth/programs/certified-unified-program-agency-(cupa)

Businesses that meet these quantity thresholds are required to develop and implement a Hazardous Materials Management Plan (HMMP). The HMMP must include a detailed inventory of hazardous materials and waste, and outline emergency response procedures for incidents involving these substances.

The Department of Toxic Substances Control (DTSC) is a key California agency responsible for regulating hazardous waste, conducting inspections, providing emergency response for hazardous materials incidents, protecting water resources from contamination, and overseeing waste removal. The DTSC operates under the authority of the federal Resource Conservation and Recovery Act (RCRA) and the California Health and Safety Code, implementing regulations found in California Code of Regulations (CCR) Title 22, Division 4.5.

Government Code Section 65962.5 mandates that the DTSC compile and annually update a comprehensive list of hazardous waste sites in California. This list, known as the Cortese List, includes:

1. Hazardous waste facilities subject to corrective action (HSC Section 25187.5).
2. Land designated as hazardous waste property or border zone property (HSC Division 20, Chapter 6.5, Article 11, commencing with Section 25220).
3. Information on hazardous waste disposals on public land (HSC Section 25242).
4. Sites listed pursuant to HSC Section 25356.
5. Sites included in the Abandoned Site Assessment Program.

The DTSC distributes the Cortese List to all cities and counties in California. CCR Title 22 stipulates that soils excavated from a site containing hazardous materials are considered hazardous waste and must be handled accordingly. Cleanup requirements for contaminated soil are determined on a case-by-case basis by the relevant jurisdiction.

Record Search

The United States Environmental Protection Agency (EPA) Superfund National Priorities List (NPL)[23], California Department of Toxic Substance Control's EnviroStor database[24] , and the State Water Resources Control Board's GeoTracker database [25] include hazardous release and contamination sites. A search of each database was conducted on January 17, 2025. The searches revealed no hazardous material release sites on or adjacent to the Project Site.

Manteca 2043 General Plan

The Manteca 2043 General Plan Safety Element includes policies to protect the community from contamination from hazardous materials, as listed below.

[23] United States Environmental Protection Agency. Superfund National Priorities List. Accessed January 17, 2025, https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=33cebcdfdd1b4c3a8b51d416956c41f1
[24] California Department of Toxic Substances Control. Envirostor. Accessed January 17, 2025, https://www.envirostor.dtsc.ca.gov/public/
[25] California State Water Resources Control Board. GeoTracker. Accessed January 17, 2025, https://geotracker.waterboards.ca.gov/

Goal S-4 Protect the health, safety, natural resources, and property of the community through regulation of use, storage, transport, and disposal of hazardous materials.

Policy S-4.1 Maintain an awareness of hazardous materials throughout the Manteca region.

Policy S-4.2 Strictly regulate the production, use, storage, transport, and disposal of hazardous materials in compliance with local, federal, and State requirements to protect the health and safety of Manteca residents.

Policy S-4.3 As part of the development review process, consider the potential for the production, use, storage, transport, and/or disposal of hazardous materials and provide for appropriate controls on such hazardous materials consistent with federal, state, and local standards.

Policy S-4.4 Use the environmental review process to comment on Hazardous Waste Transportation, Storage and Disposal Facilities proposed in the Manteca Planning Area and throughout the County to request a risk assessment and ensure that potentially significant, widespread, and long-term impacts on public health and safety of these facilities are identified and mitigated, as such impacts do not respect jurisdictional boundaries.

4.9.2 Impact Assessment

Would the Project:

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

Less than Significant Impact. The Project proposes residential development, and the hazardous materials associated with its operation would be typical of residential uses, such as household cleaning supplies, landscaping chemicals, and HVAC refrigerants. While these materials are potentially hazardous, the quantities involved are generally small and do not pose a significant risk to the public or the environment under normal conditions of use and storage.

Certain appliances and electronics used by residents may contain hazardous components (e.g., refrigerants, oils). However, the handling and disposal of these components are strictly regulated by the EPA under the Toxic Substances Control Act (TSCA) and Clean Air Act (CAA), the U.S. Department of Transportation, Office of Hazardous Materials Safety, for transport regulations, as implemented in California by Title 13 of the California Code of Regulations (CCR), and the California Building Code and Uniform Fire Code, as adopted by the City of Manteca. Compliance with these regulations would ensure that the use, storage, and disposal of such items within the residences do not create a significant hazard.

During Project construction, the use of fuels, lubricants, and other potentially hazardous materials associated with construction equipment is anticipated. These potential impacts will be short-term and temporary and would be reduced through compliance with a comprehensive set of regulations, including EPA's oil spill prevention and preparedness regulations (e.g., Spill Prevention, Control, and Countermeasure plans), California Office of Emergency Services regulations related to hazardous materials accident prevention, California Department of Toxic Substances Control permitting and regulations for hazardous waste generation and handling, San Joaquin County's environmental health regulations related to hazardous materials, and standard equipment operating practices and best management practices (BMPs) as specified in operator manuals and construction management plans.

Therefore, because the hazardous materials associated with the Project's operation are typical of residential uses and are subject to extensive federal and state regulations, and because construction-related hazardous materials would be managed according to a comprehensive regulatory framework, 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) 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's operational activities would involve only small quantities of hazardous materials typical of residential use (e.g., household cleaning supplies, landscaping chemicals). Given the limited quantities and nature of these materials, the risk of a significant hazard to the public or the environment from reasonably foreseeable upset and accident conditions is considered low. Construction activities would involve the temporary use of limited quantities of potentially hazardous materials, such as fuels, lubricants, and cleaning solvents. Standard construction safety practices and BMPs would be implemented through compliance with local, state, and federal regulations to prevent spills and releases. Given the limited quantities and temporary nature of these materials, the risk of a significant hazard to the public or the environment from reasonably foreseeable upset and accident conditions during construction is considered low. Impacts would be less than significant.

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

Less than Significant Impact. Sierra High School is located within one-quarter mile of the Project site. The Project's operational activities would involve only small quantities of hazardous materials typical of residential use (e.g., household cleaning supplies, landscaping chemicals). Given the limited quantities and nature of these materials, the risk of a significant hazard to schools is considered low. Construction activities would involve the temporary use of limited quantities of potentially hazardous materials, such as fuels, lubricants, and cleaning solvents. Standard construction safety practices and BMPs would be implemented through compliance with local, state, and federal regulations to prevent spills and releases. Given the limited quantities and temporary nature of these materials, the risk of a significant hazard to schools is considered low. Given these factors, the Project is not anticipated to emit hazardous emissions or handle hazardous materials in quantities that would pose a risk to Sierra High School. Impacts are less than significant.

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

Less than Significant Impact. The Project site has been checked against the hazardous materials site lists compiled pursuant to Government Code Section 65962.5, commonly known as the Cortese List. This check included a review of the following databases: National Priorities List (NPL), EnviroStor (DTSC's database of hazardous waste sites), and GeoTracker (SWRCB's database of leaking underground storage tanks and other sites). The Project site is not located on any site included in the Cortese List. Therefore, the Project would not create a significant hazard to the public or the environment due to its location on a listed hazardous materials site. Impacts are less than significant.

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

No Impact. The Project is not located in an airport land use plan or within two (2) miles of a public airport or public use airport. Therefore, the Project would not result in a safety hazard for people residing or working in the Project area and there would be no impact.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project site would be accessible via the existing roadway network, with proposed ingress/egress on Wawona Street. The Project would not alter or impede any primary excavation routes identified by the City's adopted emergency response plan or emergency evacuation plan. While construction activities may require temporary lane closures, these would be short-term and managed through approved traffic control plans and encroachment permits to ensure that emergency vehicle access is always maintained. Post-construction, the Project would maintain emergency access that support emergency response, such as adequate turning radii for emergency vehicles, clearly marked fire lanes, ad sufficient hydrant access. The Project has been reviewed and conditioned by the City for compliance with all applicable codes and regulations, including those related to emergency access and evacuation, to ensure that the Project would not conflict with or impair emergency response plans or emergency evacuation plans. Therefore, impacts would be less than significant.

g) 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 on a relatively flat, highly disturbed property with minimal slope. The site is not situated in a wildland or a Cal Fire-designated Fire Hazard Severity Zone (FHSZ). Furthermore, the site is within an "area of local responsibility." The flat terrain, lack of wildland vegetation, absence of prevailing winds that would exacerbate fire risk, and location outside a FHSZ reduces wildfire risk and the potential to expose people or structures to wildland fires. In addition, the development itself would be constructed in compliance with the CBC and local fire safety regulations, including the Wildland Urban Interface Codes and Standards of the CBC Chapter 7A, which include measures to minimize fire risk. The transition from a vacant site to a developed site with impervious surfaces (e.g., pavement, roofs) would also reduce the potential for wildfire to spread compared to existing conditions. Therefore, impacts are less than significant.

4.9.3 Mitigation Measures

None required.

4.10 HYDROLOGY AND WATER QUALITY

	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?			X	
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?			X	
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
	i. Result in a substantial erosion or siltation on- or off-site;			X	
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site:			X	
	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			X	
	iv. Impede or redirect flood flows?			X	
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?			X	
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

4.10.1 Environmental Setting

The Project is located within Manteca's city limits and would be required to connect to the City's water and stormwater services. The City's water and stormwater services are described as follows.

Water

The City of Manteca Engineering Department maintains and operates the City's water system. According the City's 2024 Water Master Plan, the system consists of over 300 miles of distribution pipeline ranging from one (1)-inch to 30-inches in diameter, 15 active municipal wells, two (2) standby wells, and three (3) tanks with a total of approximately 5.8 million gallons of capacity[26]. According to the City's 2020 Urban Water Management Plan, the City provides potable water services to approximately 23,436 connections and supplied 15,282 AF within its service area in 2020. [27] Manteca meets its demand for domestic water from a combination of treated surface water, groundwater, and reclaimed water. Surface water is supplied by the South San Joaquin Irrigation District (SSJID). According to the 2024 Water Master Plan, the City aims to maintain a potable water supply ration of 53% surface water to 47% groundwater. In 2020, the ratio was 60% surface to 40% groundwater.

Manteca 2043 General Plan

The Manteca 2043 General Plan includes the following goals and policies in its Community Facilities and Services Element to promote water system reliability, as listed below.

Goal CF-6 *Provide an adequate, reliable, and safe water supply, storage, and distribution system to meet the needs of existing and projected development.*

Policy CF-6.1 *Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.*

Policy CF-6.4 *Ensure that the City's water supply provides for and supports a balance of jobs and housing in future development.*

Policy CF-6.7 *Ensure that all new development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.*

Policy CF-6.8 *Continue efforts to reduce potable water use, increase water conservation, and establish water reuse and recycling systems.*

Policy CF-6.10 *Consider the effect of incremental increases in the demands on groundwater supply and water quality when reviewing development applications.*

Stormwater

The City of Manteca operates and maintains the Storm Drain System, which serves the community. The City's Storm Drainage System consists of approximately 210 miles of pipeline, 70 pump stations, and 66 detention basins. When

[26] City of Manteca. (2024) 2024 Water Master Plan. Accessed January 20, 2025, https://www.manteca.gov/home/showpublisheddocument/6607/638483662765470000
[27] City of Manteca. (2023). 2020 Urban Water Management Plan. Accessed January 20, 2025, https://www.manteca.gov/home/showpublisheddocument/5865/638265582503400000

it rains, the runoff flows through this system, into South San Joaquin Irrigation District drains and laterals, and eventually into the San Joaquin River.

The City of Manteca has a Storm Drain Master Plan (SDMP) to provide storm drainage design criteria for new development and redevelopment projects. The SDMP identifies and analyzes the existing drainage deficiencies as of 2012 and provides the storm drainage concepts for the future developments required to serve the City at buildout of the General Plan 2023. This Project is a beneficiary to the Robert Estates Storm Drain Area of Benefit. The Developer shall pay the required assessment, according to the approved Area of Benefit report.

The City of Manteca is required by the Environmental Protection Agency, as part of the National Pollutant Discharge Elimination System (NPDES), to have a Storm Water Management Program (SWMP). The purpose of the program is to limit to the maximum extent practicable the discharge of pollutants into the waters of the United States.

Manteca 2043 General Plan

The Manteca 2043 General Plan contains the following relevant goals and policies in its Community Facilities and Services related to stormwater management.

Goal CF-8 Provide an adequate level of service in the City's drainage system to accommodate runoff from existing and projected development and to prevent property damage due to flooding.

> *Policy CF-8.2 Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*
>
> *Implementation Measure CF-8b Continue to complete gaps in the drainage system in areas of existing and future development.*
>
> *Implementation Measure CF-8d Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased during rain and flood events.*

4.10.2 Impact Assessment

Would the Project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. The Project's construction activities, including grading, excavation, and loading, could temporarily increase runoff, erosion, and sedimentation. Potential stormwater pollutants may originate from construction materials, equipment maintenance, and earthmoving. Project operations could also generate potential pollutants, such as fertilizers and pesticides from landscaping, pet waste, vehicle fluids from driveways and parking areas, and household chemicals. However, a required SWPPP, compliant with the Construction General Permit, and City approved grading/drainage plans would significantly minimize these risks. The SWPPP will assess sediment risk and incorporate BMPs for erosion, sediment, tracking, and waste management. Implementing the SWPPP would minimize soil erosion and topsoil loss, preventing violations of waste discharge requirements and

substantial degradation of surface or groundwater quality. Furthermore, Project runoff would be managed by the City, complying with the Storm Drainage Master Plan, Multi-Agency Post-Construction Stormwater Standards Manual, and approved grading/drainage plans.. Therefore, adherence to existing regulations, including the Construction General Permit, BMPs, and the Storm Drainage Master Plan, ensures that potential water quality and waste discharge impacts would be less than significant.

b) 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 Project would connect to the City's water supply system and would not involve constructing on-site wells or substantially increasing pumping at City wells. Construction excavation would be limited to utility infrastructure installation and is not expected to encounter groundwater or require dewatering. While the Project would increase impervious surfaces, approximately 30% of the site would remain as open space. Connection to existing storm drain facilities and pervious surfaces will allow some continued groundwater recharge post-construction. Therefore, the Project is not anticipated to substantially decrease groundwater supplies or interfere with groundwater recharge to a degree that would impede sustainable groundwater management. Furthermore, adherence to connection requirements (e.g., California Plumbing Code, efficient appliances, landscaping) and compliance with the California Green Building Standards Code (Title 24, Part 11, Section 4.304 – Outdoor Water Use) and the Model Water Efficient Landscape Ordinance (MWELO) would further limit the Project's potential impact on groundwater supplies. Impacts are considered less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant Impact. While construction activities on the primarily undeveloped site could temporarily increase runoff, erosion, and sedimentation, the Project would implement erosion controls and BMPs as required by the SWPPP. These BMPs, such as covering/binding soil surfaces and using barriers like straw bales and sandbags, would minimize soil detachment and transportation. Post-construction, the increase in impervious surfaces could increase the runoff volume. However, this is balanced by a significant reduction in exposed soil, which minimizes long-term erosion and siltation potential. Furthermore, the Project will maintain the existing site drainage pattern in accordance with an approved grading and drainage plan. Therefore, compliance with these requirements will prevent substantial alteration of the drainage pattern that could lead to substantial erosion or siltation, resulting in a less than significant impact.

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. Construction activities would disturb vegetation and soil, potentially altering the Project site's natural hydrology and increasing runoff volume and velocity, which could increase the risk of flooding. However, compliance with the SWPPP, approved grading and drainage plan, and implementation of BMPs would control and direct runoff. These measures would reduce potential for increased runoff leading to on- or off-site flooding during construction, resulting in a less than significant impact.

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

Less than Significant Impact. Construction activities would temporarily disturb vegetation and soil, altering the Project site's natural hydrology. However, compliance with the SWPPP, approved grading and drainage plan, and BMP implementation would control and direct runoff, reducing construction-related impacts on runoff volume and pollution, and preventing exceedance of existing or planned stormwater drainage systems. Post-construction, the increase in impervious surfaces would increase runoff. However, compliance with approved grading and drainage plans would reduce the potential for substantial additional polluted runoff or runoff exceeding the capacity of existing or planned drainage systems. Therefore, both construction and operational impacts are considered less than significant.

iv. Impede or redirect flood flows?

Less than Significant Impact. While the Project would increase impervious surfaces, it would be required to maintain the existing site drainage pattern through City-reviewed and approved project-specific grading and drainage plans. This compliance would minimize or eliminate the potential to impede or redirect flood flows, resulting in a less than significant impact.

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

Less than Significant Impact. The project site is in FEMA Flood Zone X, a minimal flood hazard area with a 0.2% annual chance of flooding and a 1% annual chance flood with shallow depths or small drainage areas. Project-specific grading and drainage plans, reviewed and approved by the City, would ensure proper drainage and minimize the potential for on-site water retention that could contribute to flood hazards. Furthermore, the site is not located in a tsunami or seiche zone. Therefore, the risk of pollutant release due to project inundation is considered less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. The project, located in Manteca, falls under the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB) and must comply with the Sacramento-San Joaquin River Basins' Water Quality Control Plan (Basin Plan). To minimize potential water quality impacts, the Project would obtain an NPDES Construction General Permit and implement a SWPPP incorporating Basin Plan-compliant BMPs. Furthermore, the Project would be required to adhere to relevant policies and actions from the General Plan Update, consistent with the Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan. Therefore, the Project would not conflict with or obstruct the implementation of any water quality or groundwater management plan, resulting in a less than significant impact.

4.10.3 Mitigation Measures

None required.

4.11 LAND USE PLANNING

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Physically divide an established community?			X	
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?			X	

4.11.1 Environmental Setting

Project Setting

The Project site is mostly vacant. A single-family residential dwelling currently occupies one of the lots (APN 222-100-14). The other two lots (APNs 222-100-09 and 222-100-15) are currently vacant. According to historical aerial imagery, APN 222-100-09 has been vacant for several decades and appears to be regularly disced for vegetation control. Additionally, APN 222-100-15 had historically been occupied by a single-family residential structure up through the year 2011 when the structure was demolished. The lot has sat vacant since.

Surrounding Land Uses

The Project Site is surrounded by residential uses to the north, south, east, and west. The properties to the north, currently occupied by very low-density residential uses, are planned and zoned for High Density Residential and Commercial Mixed Use, respectively. The properties to the west, currently occupied by very low-density residential uses, are zoned for commercial use.

General Plan Designation

The Project site has a City of Manteca General Plan planned land use designation of Very Low Density Residential (VLDR). According to the City of Manteca General Plan, the VLDR land use designation "provides for residences on larger lots and small, quasi-agricultural activities, including raising and boarding livestock. Clustering is encouraged to allow continuation of agricultural uses or to provide common amenities for the development." This land use designation supports a maximum of two (2) dwelling units per acre.

GPA 24-76 proposes to amend the General Plan land use designation for the Project site from VLDR (Very Low Density Residential) to HDR (High Density Residential). According to the Manteca General Plan, the HDR land use designation allows for "multi-family townhome, condominium, and apartment style housing and mobile home parks" with access to arterial streets, pedestrian and bikeway networks, and public transportation corridors. The HDR designation allows for densities between 20.1 and 30 dwelling units per acre.

Zoning

The Project Site has zoning designations of R-E (Residential Estate) and CG (General Commercial). According to the Manteca Zoning Ordinance (Title 17 of the Manteca Municipal Code, or MMC) the R-E district "allows for large lots and flexible placement of single-family detached housing. Uses include quasi-agricultural activities, including raising

and boarding livestock. The agricultural use areas that remain on the residential parcel shall be subject to an easement dedicated to the City that allows continued agricultural use but prohibits any further nonagricultural-related development." According to the Zoning Ordinance, the CG district allows for "whole-sale, warehousing, and heavy commercial uses, highway-oriented commercial retail, public and quasi-public uses, and similar and compatible uses. The designation is also intended to accommodate visitor lodging, commercial recreation and public gathering facilities, such as amphitheaters, or public gardens. It also allows most neighborhood and mixed commercial uses."

REZ 24-79 proposes to amend the zoning designation for the site from CG (General Commercial) and R-E (Residential Estate) to R-3 (Multiple-Family Dwelling). According to the MMC, the R-3 zone district is intended for multi-family apartment style housing with access to arterial streets, pedestrian and bike networks, and other transit options. The R-3 zoning district allows for densities between 15.1 and 25.0 dwelling units per acre.

4.11.2 Impact Assessment

Would the Project:

a) Physically divide an established community?

Less than Significant Impact. The physical division of an established community typically involves the construction of a barrier, such as a highway or railroad tracks, or the removal of a crucial access point, thereby impairing community connectivity. This Project, a multi-family residential development on a largely vacant site with one existing residence to be demolished, does not involve any such division. It would not construct a dividing feature, nor will it remove an essential access route. Instead, the Project would be designed in accordance with the General Plan, Manteca Municipal Code (MMC), and other applicable standards to ensure a cohesive site and circulation plan that integrates with the surrounding community. Therefore, this Project would not physically divide an established community, and the impact is less than significant.

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?

Less than Significant Impact. The Project involves a General Plan Amendment (GPA) and Rezone (REZ) to allow for a 44-unit multi-family development. Approval of the GPA and REZ requires the Project to be consistent with the goals and policies of the General Plan as well as applicable regulations contained in the MMC. Policy conflicts typically constitute environmental impacts only when they result in direct physical impacts or interfere with the avoidance or mitigation of environmental impacts. These potential physical impacts are addressed in the relevant sections of this document (e.g., Biological Resources, Cultural Resources, Tribal Cultural Resources, etc.). A review of applicable General Plan land use policies (Table 4-9) demonstrates the Project's general consistency with the proposed land use designation. Furthermore, the entitlement process would ensure compliance with all applicable regulations, including those specifically designed to avoid or mitigate environmental effects. Therefore, the Project's potential conflict with land use plans, policies, or regulations intended to mitigate environmental effects is considered less than significant.

Table 4-9 Discussion on Land Use Policies in the General Plan for Residential Development

General Plan Policy	Project Consistency
Residential Areas	
Goal LU-3 Establish and maintain residential neighborhoods that meet the housing needs of all residents and are safe and attractive places to live with convenient access to services, recreation, schools, and employment.	
LU-3.1 Provide for the development of a variety of housing types and at a range of prices to meet the needs of all segments of the city's population, including individuals and families who qualify for affordable housing assistance in accordance with the Housing Element.	**Consistent.** The Project proposes a General Plan Amendment (GPA) to change the land use designation from Very Low Density Residential (VLDR) to High Density Residential (HDR). This change will enable the development of multi-family residential units on the site. This new multi-family housing will introduce a greater variety of housing types and price points to the area, contributing to a broader range of housing options within the city. This increased variety supports the goal of meeting the diverse housing needs of all segments of the population, including those requiring affordable housing assistance, and aligns with the city's Housing Element objectives.
LU-3.2 Require the design of new residential development to be consistent with any applicable design guidelines, including complete streets standards, to ensure harmony with Manteca's unique character and compatibility with existing surrounding land uses.	**Consistent.** The proposed residential development will be subject to review and approval by the City of Manteca. This review process will ensure the Project's design complies with all applicable design guidelines and standards, including complete streets standards. This will ensure that the new development is compatible with the existing surrounding land uses and contributes positively to Manteca's unique character.
LU-3.3 Encourage residential development to occur in a balanced and efficient pattern that provides residential, employment-generating, and community services, ensures contiguous community-serving and urban development, reduces sprawl, preserves open space, and creates convenient connections to other land uses.	**Consistent.** The Project site is currently designated and zoned for a mix of low-density residential and commercial uses and is surrounded by existing residential development. While the surrounding area includes properties planned and zoned for higher density residential and commercial mixed-use development, this Project proposes a General Plan Amendment and Rezone to develop the site with high-density residential uses. This infill development contributes to a more balanced and efficient land use pattern by increasing residential density in an area already designated for a mix of uses. This promotes contiguous urban development, reduces sprawl, and supports the creation of convenient connections to existing and planned surrounding land uses.
LU-3.4 Prioritize the location of higher density and affordable housing in close proximity to employment	**Consistent.** The Project proposes higher-density residential development, aligning with Policy LU-

areas, services, schools, retail, transit stops, near community destinations, and near major streets with high access to transit and non-vehicle transportation modes.	3.4's prioritization of such housing near key amenities and transportation. The Project site is located within a one-mile radius of employment areas, various services, schools (including Sierra High School), retail options, transit stops, and community destinations. Its adjacency to Wawona Street and Airport Way, both major streets with high access to transit and non-vehicle transportation modes, further reinforces this consistency. This proximity encourages alternative transportation use, reduces reliance on private vehicles, and improves residents' access to jobs, services, and community destinations.
LU-3.5 Encourage residential uses above the ground floor in mixed-use areas.	Not Applicable. The Project site is not planned or zoned for Mixed Use.
LU-3.6 Ensure new neighborhoods include a mix and distribution of land uses, such as schools, parks, shopping, restaurants, and services, that reduce auto trips and support walking, biking, and transit use.	Consistent. While the Project itself doesn't constitute a new neighborhood, its development of higher-density residential units contributes to the goals of Policy LU-3.6. By increasing residential density near existing schools, parks, shopping, restaurants, and services, and by completing sidewalk infrastructure, the Project facilitates a mix of land uses within the broader community. This infill development pattern helps reduce auto trips and supports walking, biking, and transit use by placing residents in closer proximity to these amenities.
LU-3.7 Promote the development of strategically located neighborhood serving centers, particularly in disadvantaged communities, that incorporate commercial, employment, cultural or entertainment uses and are within walking distance of surrounding residents.	Consistent. While the Project itself does not constitute a neighborhood serving center, its development of higher-density residential units contributes to the goals of Policy LU-3.7. By increasing residential density near existing commercial, employment, cultural, and entertainment uses, and by completing sidewalk infrastructure, the Project enhances the walkability of the site for future residents. This increased walkability contributes to a more vibrant and pedestrian-friendly environment, even if it does not fully meet the criteria for a formal neighborhood serving center.
LU-3.8 Where planned residential areas and expansions of existing residential neighborhoods interface with commercial, industrial, agricultural industrial, and other non-residential development, require that the proposed development be designed to maximize the compatibility between the uses and reduce any potentially significant or significant impacts associated with aesthetics, land use and planning, air quality, noise, safety, odor, and lighting	Consistent. The Project site is currently planned for a mix of residential and commercial uses. The proposed General Plan Amendment and Rezone to allow for higher-density residential development will interface with the existing surrounding residential and commercial areas. The City's review and approval process for the project, including CEQA review, will ensure that the development is designed to maximize compatibility between these uses. This

that are identified through the California Environmental Quality Act (CEQA) review to less than significant.	Initial Study specifically addresses and mitigate any potentially significant or significant impacts related to aesthetics, land use and planning, air quality, noise, safety, odor, and lighting to less than significant levels, as required by this policy.
LU-3.9 Locate residences and sensitive receptors away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, such as less intensive renewable energy production, light industrial, office, or commercial uses, separate the proposed residential uses from more intensive uses, including industrial, agricultural, or agricultural industrial uses and designated truck routes, to ensure the health and well-being of existing and future residents.	Consistent. The Project site is currently planned for a mix of residential and commercial uses, and the proposed development will consist of residential uses within this designated area. The City's review and approval process will ensure that the Project incorporates adequate provisions, such as setbacks and buffers, to separate the proposed residential uses from any more intensive uses in the vicinity. Critically, there are no industrial, agricultural, or agriculturally industrial uses, or designated truck routes adjacent to the Project site, further ensuring compatibility and protecting future residents from excessive noise, smoke, dust, odor, and lighting.
LU-3.10 Encourage the development of additional executive housing units and neighborhoods in a manner that does not negatively impact existing communities.	Not Applicable. The Project does not propose executive housing units and neighborhoods.
LU-3.11 Encourage property maintenance and the revitalization of economically disadvantaged, poorly maintained, and older neighborhoods.	Consistent. The Project site is primarily vacant, with a single existing single-family residence on one lot (APN 222-100-14). Developing this site with a multi-family residential project contributes to the revitalization of the area by replacing a low-density dwelling with a higher-density development, potentially improving the overall quality and appearance of the site and surrounding area.
LU-3.12 Encourage and support development patterns at the highest limits permitted within each General Plan land use designation consistent with the policies of all other General Plan elements.	Consistent. The Project proposes a General Plan Amendment (GPA 24-76) to change the land use designation from Very Low Density Residential (VLDR) to High Density Residential (HDR). This proposed change aligns with Policy LU-3.12 by supporting development at the upper limits of permitted density. The Manteca General Plan allows for "multi-family townhome, condominium, and apartment style housing and mobile home parks" within the HDR designation, with densities ranging from 20.1 to 30 dwelling units per acre. The Project's proposed 44 multi-family units on a 1.67-acre site falls within this permitted density range (26.3 du/ac), demonstrating consistency with the General Plan and encouraging efficient land use.

4.11.3 Mitigation Measures

None required.

4.12 MINERAL RESOURCES

	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?			X	
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?			X	

4.12.1 Environmental Setting

Mineral resources include commercially viable oil and gas deposits, and nonfuel mineral resources deposits. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. California is the largest producer of sand and gravel in the nation.

The California Geological Survey (CGS) classifies and designates areas within California that contain or potentially contain significant mineral resources. Lands are classified into Aggregate and Mineral Resource Zones (MRZs), which identify known or inferred significant mineral resources. According to the California Department of Conservation, CGS's Surface Mining and Reclamation Act (SMARA) Mineral Lands Classification (MLC) data portal the Project is within an MRZ-3 Zone, which are areas containing mineral deposits the significance of which cannot be evaluated with available data.[28] According to the 2043 General Plan Draft EIR, mineral resources within and near the Planning Area are located in the southwestern portion of the Planning Area near Oakwood Lake, along the San Joaquin River west of Manteca, and south of Lathrop. The Project site it not near or adjacent to these areas.

The Geologic Energy Management Division's (CalGEM) online mapping application, Well Finder, presents California's oil and gas industry information, including the location of oil/gas wells, geothermal wells, gas/oil facilities (i.e., tank, vessel, sump), underground gas storage, as well as the boundaries of CalGEM-recognized oil/gas fields. According to Well Finder, the Project Site is not within a CalGEM-recognized oil/gas field. [29]

Manteca 2043 General Plan

The Manteca 2043 General Plan established the following policies to protect mineral resources in the City's Planning Area.

[28] California Department of Conservation. (1997). Mineral Lands Classification. Accessed on January 20, 2025, https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc
[29] California Department of Conservation Geologic Energy Management Division. Well Finder. Accessed on January 20, 2025, https://maps.conservation.ca.gov/doggr/wellfinder/

Goal RC-9 Manage Manteca's mineral resources while preserving development and conservation options in the future.

Policy RC-9.1 Ensure that areas of mineral resources can be mined while productive and are ultimately reused for urbanization or open space.

Policy RC-9.2 Allow resource extraction of gas, oil, and mineral resources as an interim use.

4.12.2 Impact Assessment

Would the Project:

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?

Less than Significant Impact. The Project site is located within an MRZ-3 zone, which, as defined by the California Geological Survey, indicates an area containing mineral deposits the significance of which cannot be evaluated with available data. No known mineral resources of regional or statewide value have been identified on the Project site or in the immediate vicinity. The site is not used for mining and does not contain any oil or gas wells. Therefore, the Project would not 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. Impacts would be less than significant.

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?

Less than Significant Impact. The Project site is not located within or adjacent to any areas identified in the 2043 General Plan Draft EIR as containing significant mineral resources (specifically, the areas near Oakwood Lake, along the San Joaquin River west of Manteca, and south of Lathrop). Furthermore, no known mineral resources of regional or statewide value have been identified on the Project site or in its immediate vicinity, nor is the site currently used for mining or containing any oil or gas wells. Therefore, the Project would not result in the loss of availability of a known mineral resource of value to the region or the state. Impacts would be less than significant.

4.12.3 Mitigation Measures

None required.

4.13 NOISE

	Would the Project:	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?		X		
b)	Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

4.13.1 Environmental Setting

An Acoustical Analysis of the Project was conducted by WJV Acoustics, Inc. (WJVA). The full report is provided in Appendix E. A summary of the Acoustical Analysis is contained herein. Overall, the Acoustical Analysis concludes that the proposed multi-family residential development would comply with all City of Manteca exterior and interior noise level standards, provided the following mitigation measure is incorporated into final Project design: "Mechanical ventilation or air conditioning must be provided for all homes so that windows and doors can remain closed for sound insulation purposes."

Manteca 2043 General Plan

The Manteca 2043 General Plan Safety Element outlines a goal, policies, and implementation measures related to noise within the City of Manteca (see below), as well as sets noise compatibility standards for mobile and stationary noise sources in terms of the Day-Night Average Level (L_{dn}). The L_{dn} is the time-weighted average noise level for a 24-hour day with a penalty of 10 dB added to noise level occurring during the nighttime hours (10:00 p.m. to 7:00 a.m.).

The Safety Element establishes a land use compatibility criterion of 60 dB L_{dn} for exterior noise levels in outdoor activity areas of residential developments. Outdoor activity areas generally include backyards of single-family residences and outdoor common use areas, as well as individual patios or decks, of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

The Safety Element also provides land use compatibility guidelines for community noise exposure levels. Table 4-10 (Table S-1 in the General Plan Safety Element) summarizes land use compatibility guidelines for residential noise exposure levels from mobile sources within the community. An exterior noise level of 60 dB L_{dn} and an interior noise level of 45 dB L_{dn} is the maximum allowable noise exposure for residential land uses within the City of Manteca. Table 4-11 (Table S-2 in the General Plan Safety Element) summarizes the performance standards for stationary noise sources. Between the hours of 7:00 a.m. to 10:00 p.m., a maximum Hourly L_{eq} of 55 dBA is permitted. Between the hours of 10:00 p.m. and 7:00 a.m., a maximum Hourly L_{eq} of 45 dBA is permitted.

Table 4-10 Maximum Allowable Noise Exposure from Mobile Noise Sources (General Plan Table S-1)

Land Use	Outdoor Activity Areas	Interior Spaces
Residential	60 L_{dn}	45 L_{dn}

Table 4-11 Performance Standards for Stationary Noise Sources (General Plan Table S-2)

Noise Level Descriptor	Daytime	Nighttime
	7 am to 10 pm	10 pm to 7 am
Hourly L_{eq}, dBA	55	45

The Manteca 2043 General Plan Safety Element includes the following applicable goals and policies related to protecting the community from harmful and excessive noise:

Goal S-6 *Protect the quality of life by protecting the community from harmful and excessive noise.*

> ***Policy S-6.1*** *Incorporate noise considerations into land use, transportation, and infrastructure planning decisions, and guide the location and design of noise-producing uses to minimize the effects of noise on adjacent noise-sensitive land uses, including residential uses and schools.*
>
> ***Policy S-6.3*** *Areas within Manteca exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table S-1 shall be designated as noise-impacted areas. Figure S-3 identifies noise contours anticipated at General Plan buildout.*
>
> ***Policy S-6.4*** *Require residential and other noise-sensitive development projects to satisfy the noise level criteria in Tables S-1 and S-2.*
>
> ***Policy S-6.5*** *Require new stationary noise sources proposed adjacent to noise sensitive uses to incorporate noise-attenuating measures so as to not exceed the noise level performance standards in Table S-2, or a substantial increase in noise levels established through a detailed ambient noise survey.*
>
> ***Policy S-6.6*** *Regulate construction-related noise to reduce impacts on adjacent uses to the criteria identified in Table S-2 or, if the criteria in Table S2 cannot be met, to the maximum level feasible using best management practices and complying with the MMC Chapter 9.52.*
>
> ***Policy S-6.7*** *Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area or where the development of a stationary noise source is proposed in the vicinity of noise sensitive uses, an acoustical analysis is required as part of the development review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:*
>
> - *Be the responsibility of the applicant.*

- *Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.*
- *Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.*
- *Estimate existing and projected (20 years) noise levels in terms of the standards of Table S-1 or Table S-2, and compare those levels to the adopted policies of the Noise Element.*
- *Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.*
- *Estimate noise exposure after the prescribed mitigation measures have been implemented.*
- *If necessary, describe a post-project assessment program to monitor the effectiveness of the proposed mitigation measures.*

Policy S-6.8 Apply noise level criteria applied to land uses other than residential or other noise-sensitive uses consistent with noise performance levels of Table S-1 and Table S-2.

Policy S-6.9 Enforce the Sound Transmission Control Standards of the California Building Code concerning the construction of new multiple occupancy dwellings such as hotels, apartments, and condominiums.

Policy S-6.15 Recognizing that existing noise-sensitive uses may be exposed to increase noise levels due to circulation improvement projects associated with development under the General Plan and that it may not be feasible to reduce increased traffic noise levels to the criteria identified in Table S-1, the following criteria may be used to determine the significance of noise impacts associated with circulation improvement projects:

- *Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and*
- *Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and*
- *Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.*

Implementation Measure S-6a Require an acoustical analysis that complies with the requirements of S-6.7 where:

- *Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table S-1 or S-2.*

Implementation Measure S-6c Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Safety Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours*

or on Sundays or federal holidays, without a specific exemption issued by the City. No exemption shall be issued for construction within 200 feet of residential uses.

- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects that exceed ambient noise levels by more than 12dBA or produce perceptible vibrations at any off-site structures. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, methods for assisting in noise reduction measures, and shall establish allowed truck routes to access the site that minimize exposure of residential areas to heavy truck traffic.*
- *Noise reduction measures shall include, but are not limited to, the following:*
    - *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*
    - *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. This would achieve a reduction of up to 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*
    - *Temporary power poles or zero-emission power sources shall be used instead of generators where feasible.*
    - *Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.*
    - *The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.*
    - *Delivery of materials shall observe the hours of operation described above.*
    - *Truck traffic shall avoid residential areas to the greatest extent feasible*

Implementation Measure S-6d *In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:*

Transportation Noise

- *When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;*
- *When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;*

- *When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.*

Non-Transportation Noise

- *An 5dB increase in noise will be considered substantial.*

Construction Noise

- *An increase in 12dBA in noise will be considered substantial.*

Implementation Measure S-6e *Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours, and similar techniques. Where such techniques would not meet acceptable levels, use noise barriers to attenuate noise associated with new noise sources to acceptable levels.*

Implementation Measure S-6f *Require that all noise-attenuating features, including soundwalls and quieter pavements, are designed to be attractive and to minimize maintenance.*

Manteca Municipal Code

Section 17.58.050 of the MMC provides performance standards related to noise. Section 17.58.050(B) Noise Standards provides thresholds for the maximum sound level generated by any use or activity. For the multiple-family use category, a maximum L_{dn} of 55 dB is allowed between the hours of 10 pm and 7 am and a maximum of 60 dB is allowed between the hours of 7 am and 10 pm (summarized in Table 4-12). However, according to Section 17.58.050(D) Exempt Activities, construction activities conducted as part of an approved Building Permit are exempt and not subject to the noise limitations listed above.

Table 4-12 Noise Standards by Use Type

Maximum Permissible Sound Pressure Levels		
Receiving Land Use Category	**Time Period**	**Maximum Allow Noise Levels (L_{dn}, dB)**
Multiple-Family, Public Institution, and Neighborhood Commercial	10 pm to 7 am	55
	7 am to 10 pm	60

Section 17.58.050 also identifies the following related to construction noise:

Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

Section 17.58.070 (Vibration) of the City of Manteca Code of Ordinances provides some guidance regarding vibration levels within the city.

- Uses that generate vibrations that may be considered a public nuisance or hazard on any adjacent property shall be cushioned or isolated to prevent generation of vibrations. Uses shall be operated in compliance with the following provisions:
- No vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments at the points of measurement specified in Section 17.58.030 (Points of Measurement) of this Chapter, nor shall any vibration produced exceed 0.002g peak at up to 50 CPS frequency, measured at the

point of measurement specified in Section 17.58.030 (Points of Measurement) of this Chapter, using either seismic or electronic vibration measuring equipment. Vibrations occurring at higher than 50 CPS frequency of a periodic vibration shall not induce accelerations exceeding 0.001g. Single impulse periodic vibrations occurring at an average interval greater than five minutes shall not induce accelerations exceeding 0.01g.

- Uses, activities, and processes shall not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or which endanger the comfort, repose, health, or peace of residents whose property abuts the property line of the parcel.
- Uses shall not generate ground vibration that interferes with the operations of equipment and facilities of adjoining parcels.
- Vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks, trains, and aircraft) are exempt from the provisions of this Section

Caltrans Transportation and Construction Vibrance Guidance Manual

Some additional vibration guidance is provided by the Caltrans Transportation and Construction Vibration Guidance Manual. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table 4-13 (Acoustical Analysis Table III) and Table 4-14 (Acoustical Analysis Table IV), and are presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

Table 4-13 Guideline Vibration Annoyance Potential Criteria (Acoustical Analysis Table III)

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.90	0.10
Severe	2.0	0.4

Source: *Caltrans*

Table 4-14 Guideline Vibration Damage Potential Threshold Criteria (Acoustical Analysis Table IV)

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.0	0.50
Modern industrial/commercial buildings	2.0	0.50

Source: *Caltrans*

Existing Ambient Noise Environment

Existing noise sources near the Project site include traffic on Wawona Street and Airport Way, noise from rural residential activities (e.g., landscaping, construction, animals, etc.), nearby commercial/industrial noise, and occasional aircraft overflights. Ambient noise levels were measured by WJVA at one long-term (24-hour) site (LT-1) within the Project's northwest portion and three (3) short-term (15-minute) sites (ST-1, ST-2, and ST-3) along the

Project boundary. Equipment met ANSI Type I standards. At LT-1, hourly Leq ranged from 40.2 to 54.9 dBA, Lmax from 55.0 to 84.4 dBA, and L90 from 33.3 to 46.0 dBA, with a 24-hour Ldn of 54.5 dB. Short-term sites ST-1, ST-2, and ST-3 were influenced primarily by traffic noise from Airport Way and Wawona Street, as well as rural residential noise and aircraft overflights. Measurements at all sites included Leq, Lmax, and statistical noise level descriptors (L90, etc.) to characterize the ambient noise environment.

4.13.2 Impact Assessment

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 in other applicable local, state, or federal standards?

Less than Significant Impact with Mitigation Incorporated. The Project's noise-generating activities would include noise from traffic, construction, and operations as detailed below.

Traffic Noise Exposure

The FHWA Traffic Noise Model, a standard method, was used to predict Project-related traffic noise increases. This model considers vehicle volume, speed, roadway configuration, distance to receivers, and site acoustics, predicting hourly Leq values with an accuracy of ±1.5 dB. Ldn values were derived using estimated daily traffic distribution. A significant impact is defined as exceeding the City's 60 dB Ldn residential noise standard or a 3 dB increase at locations already exceeding the standard. Six (6) representative residential receptor locations were modeled along Project roadways, without accounting for existing shielding. Results (Table VI of the Acoustical Analysis) indicate the Project would not cause noise levels to exceed the City's standard or result in a 3 dB increase at any receptor location. Impacts would be less than significant.

Construction Noise Exposure

Construction noise would occur throughout the Project site during buildout, with the closest sensitive receptors located approximately 100 feet away. Typical construction noise levels at various distances are shown in Table VII of the Acoustical Analysis. Construction noise is considered less than significant if activities are limited to the City of Manteca's allowed hours (7:00 a.m. to 7:00 p.m.) and equipment is properly maintained and muffled. No extraordinary noise-producing activities, such as pile driving, are anticipated. While some vibration from heavy equipment and paving may be detectable at nearby sensitive land uses (Table VIII of the Acoustical Analysis), these levels are not expected to exceed significant thresholds for annoyance or damage. Impacts would be less than significant.

Operational Noise Exposure

The City of Manteca's exterior noise standard for residential outdoor activity areas (backyards, balconies, patios, common spaces) is 60 dB Ldn. Ambient noise surveys at the Project site, near the proposed apartment building and its balconies/patios/decks, measured approximately 55 dB Ldn, below the City standard. Therefore, no mitigation is required for exterior noise compliance at the multi-family development. Two outdoor common use areas are planned. One, near the northeast portion, is expected to experience similar noise levels (~55 dB Ldn) to the measured ambient levels. The second, near the proposed office, is estimated at 52 dB Ldn using the FHWA traffic model and traffic data, also below the 60 dB Ldn standard. Consequently, no noise mitigation is needed for these common use areas and impacts would be less than significant.

The City of Manteca's interior noise standard is 45 dB Ldn. With exterior noise levels at the proposed residential development estimated at 55 dB Ldn, a 10 dB outdoor-to-indoor noise level reduction (NLR) is required. While a specific interior noise analysis wasn't conducted (because the Project is not yet built), it's assumed that standard residential construction will provide at least a 25 dB reduction when windows and doors are closed, exceeding the required 10 dB and meeting the interior noise standard. This assumption necessitates the inclusion of air conditioning or mechanical ventilation to allow for closed windows and doors for sound insulation. Therefore, Project design shall incorporate ***Mitigation Measure NOI-1*** as recommended by the Acoustical Analysis to reduce impacts to less than significant with mitigation incorporated.

Mitigation Measure NOI-1: *Mechanical ventilation or air conditioning must be provided for all homes so that windows and doors can remain closed for sound insulation purposes.*

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Vibration from construction activities could be detected at the closest sensitive land uses, especially during movements by heavy equipment or loaded trucks and during some paving activities. Typical vibration levels at distances of 25, 100 feet and 300 feet are summarized by Table 4-15 (Table VIII of the Acoustical Analysis). These levels would not be expected to exceed any significant threshold levels for annoyance or damage, as provided above in Table 4-13 and Table 4-14. Impacts would be less than significant.

Table 4-15 Typical Vibration Levels During Construction (Acoustical Analysis Table VIII)

Equipment	PPV (in/sec)			
	At 25 feet	At 50 feet	At 100 feet	At 300 feet
Bulldozer (Large)	0.089	0.0415	0.011	0.006
Bulldozer (Small)	0.003	0.0014	0.0004	0.00019
Loaded Truck	0.076	0.0355	0.01	0.005
Jackhammer	0.035	0.0163	0.005	0.002
Vibratory Roller	0.210	0.098	0.03	0.013
Caisson Drilling	0.089	0.0415	0.01	0.006

Source: *California Department of Transportation*

c) 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 expose people residing or working in the Project area to excessive noise levels?

No Impact. The Project is not located within an airport land use plan or within two (2) miles of a public airport or public use airport. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels. Therefore, no impacts would occur.

4.13.3 Mitigation Measures

Mitigation Measure NOI-1: *Mechanical ventilation or air conditioning must be provided for all homes so that windows and doors can remain closed for sound insulation purposes.*

4.14 POPULATION AND HOUSING

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

4.14.1 Environmental Setting

Manteca 2043 General Plan

According to the City of Manteca 2043 General Plan, at buildout, the General Plan will accommodate approximately 65,057 total dwelling units, with a population of 206,882 people, and net increase of 28.7 million square feet of non-residential development, yielding 45,761 total jobs, as described in the General Plan Environmental Impact Report (see Chapter 3, Project Description).

U.S. Census Bureau

According to the U.S. Census Bureau, the City of Manteca has a population of 83,498 in 2020, with a total of 26,926 households. [30]

Department of Finance (DOF)

According to the California Department of Finance, the City of Manteca has an estimated population of 90,917 in 2024, with a total of 31,218 housing units. [31]

[30] U.S. Census Bureau. (2024). Manteca city, California. Accessed on January 25, 2025, https://www.census.gov/quickfacts/fact/table/mantecacitycalifornia,US/PST045223
[31] CA Department of Finance (2024). E-5 City/County Population and Housing Estimates. Accessed on January 25, 2025, https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/

City of Manteca Housing Element

The City of Manteca 6th Cycle Housing Element identifies the Regional Housing Needs Allocation (RHNA) for the City of Manteca as determined by SJCOG. Manteca's RHNA for 2023-2031 is 8,306 units. [32] The Housing Element also identifies an average household size for rentals of 2.96 persons.

4.14.2 Impact Assessment

Would the Project:

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)?

Less than Significant Impact. The Project involves a General Plan Amendment (GPA) and Rezone (REZ). GPA 24-76 proposes to amend the General Plan land use designation for the Project site from VLDR (Very Low Density Residential) to HDR (High Density Residential). REZ 24-79 proposes to amend the zoning designation for the site from CG (General Commercial) and R-E (Residential Estate) to R-3 (Multiple-Family Dwelling). The GPA and REZ would allow for the development of the site with a 44-unit multi-family residential development. The Project would also include off-site improvements on Wawona Street (e.g., curb, gutter, sidewalk) and connections to existing utilities (e.g., water, sewer, power, stormwater drainage). These improvements are limited in scope and would connect to and improve the existing street and utility network. No further extension of roads or other infrastructure that could cause unplanned population growth would occur. Based on the average household size identified in the Housing Element, this development could add approximately 130 residents. This increase represents only 0.06 percent of the total households and population projected at General Plan buildout. Therefore, the project's contribution to population growth is minimal and would not induce substantial unplanned population growth, either directly or indirectly. Impacts are considered less than significant.

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

Less than Significant Impact. There is one (1) existing single-family residence on the Project site that would be demolished for the development of the 44-unit multi-family residential development. Development of the Project would result in a net gain of 43 housing units. Therefore, the Project would not displace a substantial number of existing people or housing and a less than significant impact would occur.

4.14.3 Mitigation Measures

None required.

[32] City of Manteca. (2024). 6th Cycle Housing Element. Accessed on January 25, 2025, https://www.manteca.gov/home/showpublisheddocument/7085/638602871880070000

4.15 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:				
i. Fire protection?			X	
ii. Police protection?			X	
iii. Schools?			X	
iv. Parks?			X	
v. Other public facilities?			X	

4.15.1 Environmental Setting

The Project site is within Manteca city limits and thus, would be subject to fees for the construction, acquisition, and improvements for public services and facilities. Public services and facilities are further described below.

Fire Protection Services

Fire protection services in the City are provided by the Manteca Fire Department (MFD). The MFD operates a total of five (5) fire stations that serve the city, with Station 2 closest to the Project Site at 1154 S Union Road. Station 2 is located approximately one (1) mile southeast of the Project Site and serves as the department's Headquarters. According to the General Plan EIR, the MFD operates three (3) engines, three (3) reserve engines, one (1) ladder truck, one (1) medium rescue unit, one (1) USAR rescue trailer, eight (8) staff vehicles, two (2) pick-up trucks, and a public education trailer. In 2021, MFD responded to 10,490, which is a 55% increase in call volume over the last five (5) years (6,737 calls in 2016).[33] The response time goal for fire protection and emergency services is to provide service within five (5) minutes of the 911 call 90% of the time. The Department is currently meeting this goal.

[33] City of Manteca. (2022). Recirculated Draft Environmental Impact Report for the Manteca General Plan Update (SCH 2020019010). Accessed January 29, 2025. https://manteca.generalplan.org/content/documents

Manteca 2043 General Plan

The Manteca 2043 General Plan Community Facilities and Services Element includes the following goals and policies to ensure reductions in the potential for fire hazards and fire demand:

Goal CF-3 Ensure the provision of high quality and responsive fire protection services.

> *Policy CF-3.1 Through adequate staffing and station locations, maintain a maximum five-minute travel response time 90% of the time for fire and emergency calls, an overall fire insurance (ISO) rating of 2 or better for all developed areas within the City, and a minimum staffing of 3 personnel for all fire stations.*
>
> *Policy CF-3.2 Provide fire services to serve the existing and projected population.*
>
> *Policy CF-3.4 Design and maintain roadways in such a way so as to maintain acceptable emergency vehicle response times.*
>
> *Policy CF-3.5 Ensure that new development is designed, constructed, and equipped consistent with the requirements of the California Fire Code in order to minimize the risk of fire.*
>
> *Policy CF-3.6 Ensure that new development and existing development, including older, low income, and disadvantaged areas, is served with adequate water volumes and water pressure for fire protection.*

Further, projects are subject to review by the MFD and to regulations and standards such as the California Uniform Fire Code (UFC), which includes regulations on construction, maintenance and building use. The UFC addresses fire department access, fire hydrants, sprinklers, fire alarm system, etc., for new buildings.

Police Protection Services

Police protection services in the City are provided by the Manteca Police Department (MPD). The MPD is located at 1001 W Center Street, which is approximately 1.2 miles northwest of the Project Site. According to the General Plan EIR, the MPD is split into two divisions: operations and services; the department also operates a Public Affairs Unit. In 2021, the department responded to a total of 45,961 calls.

Manteca 2043 General Plan

According to the Manteca 2043 General Plan Community Facilities and Services Element, the Manteca Police Department aims to maintain a minimum of 1.0 officers per 1,000 residents. In 2022, the department had 76 sworn officers. The General Plan includes the following relevant goals and policies related to police services within Manteca.

Goal CF-2 Prioritize a safe community through the provision of high quality police services and crime prevention measures.

> Policy CF-2.2 *Ensure that the Police Department has adequate funding, staff, and equipment to accommodate existing and future growth in Manteca, while striving to provide a minimum of 1.0 officer per 1,000 population.*
>
> Policy CF-2.6 *Ensure crime-reduction and public safety features are incorporated into the design of new development projects through implementation of Crime Prevention Through Environmental Design (CPTED) techniques.*

Policy CF-2.7 *Emphasize the use of CPTED to ensure that physical site planning is an effective means of preventing crime. Residential, commercial, industrial, and open space land uses shall incorporate landscaping, sidewalks, parking lots, parks, play areas, and other public spaces that are designed with maximum feasible visual and aural exposure to community residents.*

Policy CF-2.8 *Promote coordination between land use planning, urban design, and CPTED through consultation and coordination with the Police Department during the review of development applications.*

Schools

Educational services within the City of Manteca are provided by Manteca Unified School District and the San Joaquin County Office of Education (TCOE). The school district operates 28 public schools within the City's Planning Area, including 20 elementary schools, five (5) high schools, and three (3) alternative schools, with a total student enrollment of over 25,000.[34] The student yield factors by unit type used in MUSD's student population projections for Fall 2022 to Fall 2023 are shown in Table 4-16.

Table 4-16 MUSD Student Yield Factors, 2022-2023 School Year

Unit Type	Yield Factor		
	K-6	7-8	9-12
Single-Family	0.310	0.072	0.135
Multi-Family	0.099	0.020	0.041

Source: *Manteca Unified School District, Student Population Projections, Fall 2022-Fall 2032 By Residence*

MUSD schools within a one (1)-mile radius of the Project site include Brock Elliott Elementary and Sierra High School. According to MUSD enrollment data[35], Brock Elliott Elementary School had a total enrollment of 875 students and a capacity of 915 students in the 2023-2024 school years. Sierra High School had a total enrollment of 1,769 in the 2023-2024 school year and a capacity of 1,904 students.

The Project site has a City of Manteca General Plan planned land use designation of Very Low Density Residential (VLDR), which supports a maximum of two (2) dwelling units per acre. Therefore, the Project site under the existing land use designation could be developed with approximately three (3) units (1.67 acres x 2 dwelling units per acre = 3.34 units). Using the MUSD Student Yield Factors for single-family units, the development of the Project site with three (3) units could yield one (1) student.[36]

Funding for schools and school facilities impacts is outlined in Education Code Section 17620 and Government Code Section 65995 *et. seq.* (State statutes) which govern the amount of fees that can be levied against new development. These fees are used to construct new or expanded school facilities. Payment of fees authorized by the statute is deemed "full and complete mitigation." A School District Developer Fee would be assessed for development based on the rates in place at the time payment is due.

[34] Manteca Unified School District. (2024). About MUSD. Accessed January 29, 2025. https://www.mantecausd.net/our-district
[35] Ed-Data Education Data Partnership (2024). School Summary. Accessed February 20, 2025. https://www.ed-data.org/school
[36] Manteca Unified School District. (2023). Fall 2022/2032 Report Student Population Projections. Accessed February 20, 2025, https://resources.finalsite.net/images/v1682088730/mantecausdnet/uqaqbywwmzjjjmpcvqqt/filedownloadashx_57.pdf

Parks and Recreation

The City of Manteca currently has over 400 acres of public park area spread across more than 50 parks. Park and recreation facilities are overseen by the City of Manteca Recreation & Community Services Department. According to the 2016 Parks and Recreation Master Plan, there were 49 neighborhood parks, six (6) community parks, and 10 special use facilities within the city, totaling over 382 acres of parkland.[37] According to the General Plan EIR, the City currently provides approximately 5.01 acres of parkland for every 1,000 residents in addition to the recreational opportunities available in the Dos Reis Regional Park, Mossdale Crossing Park, private parks, and other nearby regional parks. The City of Manteca Municipal Code, Fee Schedule VI Development Fee includes development impact fees to fund public facilities, including parks, which ensures that new development provides a fair-share contribution toward parks, trails, and recreational facilities. The nearest park and recreational facilities to the Project site are the Roberts Estates Park, Big League Dreams Park, and Union West Park..

Manteca 2043 General Plan

The Manteca 2043 General Plan identifies a policy of maintaining an overall minimum ratio of five (5) acres of park area per 1,000 residents. The General Plan Community Facilities and Services Element also establishes policies for parks and recreational facilities. Relevant goals and policies are listed below.

Goal CF-4 *Maintain a diverse and comprehensive system of parks, trails, recreation facilities, and recreation programs that meets the needs of all segments of the community and supports economic development and residential growth in the city.*

> ***Policy C-F-4.1*** *Ensure the provision of sufficient parks, trails, and recreation facilities that are well distributed and interconnected throughout the community.*
>
> ***Policy C-F-4.2*** *Expand, renovate, and maintain high quality parks, trails, and recreation facilities, programs, and services to accommodate existing and future needs that address traditional and non-traditional recreation, active and passive recreation, wellness, historical, cultural arts, environmental education, conservation, accessibility, inclusion, diversity, safety, and new technology.*
>
> ***Policy C-F-4.3*** *Uphold design, construction, implementation, and maintenance standards to ensure high quality parks, trails, and recreation facilities, programs, and services, now and into the future.*
>
> ***Policy CF-4.4*** *Maintain an overall minimum ratio of 5 acres of developed neighborhood and community parkland per 1,000 residents within the city limits, requiring new development to contribute to its fair share of park and recreation needs. The distribution of land between park types and guidelines for park types shall be determined within the Parks and Recreation Master Plan.*
>
> ***Policy CF-4.5*** *Develop new parks, trails, and recreation facilities through developer fees in areas which are accessible and convenient to the community, prioritizing areas that are lacking these facilities.*
>
> ***Policy C-F 4.6*** *Endeavor to develop one or more community parks as defined in the Parks and Recreation Master Plan, with a focus on accommodating community-wide events.*

[37] City of Manteca Recreation & Community Services. (2016). Manteca Parks and Recreation Master Plan. Accessed January 29, 2025. https://www.manteca.gov/home/showpublisheddocument/862/637915883652500000

Policy CF-4.8 *Consider the effects of new development on parks, trails, and recreation facilities, programs, and services, and condition new development appropriately to ensure that the City maintains an adequate inventory and network of facilities and resources.*

Courts

The City of Manteca has one State court within City Limits, the San Joaquin Superior Court located at 315 E Center Street, approximately 2.2 miles northeast of the Project site.

Library

The Manteca Branch Library is part of the Stockton-San Joaquin County Library System and is located at 320 West Center Street, approximately 1.8 miles northeast of the Project site.

Hospital

The nearest medical facility to the Project site is Kaiser Permanente Manteca Medical Center located at 1777 West Yosemite Avenue, approximately 1 mile northeast of the Project site.

Senior Center

The City of Manteca operates the Manteca Senior Center located at 295 Cherry Lane, approximately 1.2 miles northeast of the Project site.

4.15.2 Impact Assessment

Would the Project:

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 site is within Manteca city limits and is currently served by the Manteca Fire Department (MFD). MFD Station 2, located approximately one (1) mile southeast at 1154 S Union Road, is the closest station to the Project site. This proximity ensures the existing fire protection services can adequately serve the Project without requiring new or physically altered governmental facilities. The Project would be required to comply with the California Building Code (CBC) and Uniform Code, as enforced by the City of Manteca. This compliance ensures that fire safety elements are incorporated into Project design, including but not limited to fire-resistant materials, sprinklers systems, and adequate fire hydrants. Proposed ingress/egress and drive aisles are proposed with appropriate widths and turning radii to safely accommodate emergency response vehicles. The Project would also be conditioned to meet City requirements regarding water flow, water storage, hydrant spacing, infrastructure sizing, and emergency access. Through compliance, impacts would be less than significant.

ii. Police protection?

Less than Significant Impact. The Project site is within Manteca city limits and is currently served by the Manteca Police Department (MPD). The MPD headquarters are located approximately 1.2 miles northwest at 1001 W Center Street. This proximity ensures the existing police protection services can adequately serve the Project without

requiring new or physically altered governmental facilities. The Project would also incorporate security features that contribute to a safe environment for residents, including lighting and controlled access systems. The Project would also be conditioned by the City and MPD to use Crime Prevention Through Environmental Design (CPTED) principles including incorporation of landscaping, sidewalks, parking lots, play areas, and other public spaces within the development that are designed with maximum feasible visual and aural exposure to community residents, as required by the General Plan. Compliance would be verified through the building permit and inspection process. Through compliance, impacts would be less than significant.

iii. Schools?

Less than Significant Impact. The Project proposes a General Plan Amendment and Rezone to HDR and R-3 to facilitate the development of a 44-unit multi-family residential development. Since residential development is proposed, the Project would introduce new residents to the area and therefore could generate additional students for the Manteca Unified School District (MUSD). Based on the MUSD Student Yield Factors (Table 4-16) for multi-family units, the proposed 44 units could generate a net increase of three (3) students compared to the existing land use designation (Environmental Setting). These students would reside within the boundaries of Brock Elliott Elementary and Sierra High School, which had a combined enrollment of 2,644 students in the 2023-2024 school year. The net increase of three (3) students represents a negligible increase (approximately 0.11%) in the combined enrollment of these two schools.

Table 4-17 Estimated Student Population from Project Development using MUSD Student Yield Factors

Unit Type	Yield Factor			Number of Units	Number of Students			Total Students
	K-6	7-8	9-12		K-6	7-8	9-12	
Multi-Family	0.099	0.020	0.041	44	4.356	0.087	0.003	4

Source: *Manteca Unified School District, Student Population Projections, Fall 2022-Fall 2032 By Residence*

To fully mitigate any potential impact on school facilities, the Project would be assessed a School District Developer Fee by MUSD, as authorized by Government Code Section 65955 *et seq.* Payment of this fee, calculated based on the rates in effect at the time of payment, is considered full and complete mitigation for impacts to schools caused by development, per Government Code Section 65995. Therefore, payment of the assessed School District Developer Fee would reduce impacts related to school facilities to a less than significant level.

iv. Parks?

Less than Significant Impact. The Project would introduce new residents to the area, which could increase demand for existing public parks and recreational facilities in Manteca. Based on the City of Manteca's 6th Cycle Housing Element Update, the average household size for rentals is 2.96 persons. Therefore, the 44-unit multi-family development is projected to add approximately 130 residents. The City of Manteca's General Plan recommends a minimum ratio of five (5) acres of park area per 1,000 residents. Based on this ratio, the Project's estimated population increase would generate a demand for approximately 0.65 acres of parkland. The Project proposes a total of 21,830 square feet (0.50 acres) of on-site community open space, including approximately 17,404 square feet of ground-level open space and 4,426 square feet on the roof deck. While this on-site open space provides recreational opportunities for residents of the development, it does not fully satisfy the projected demand generated by the Project based on the General Plan's parkland ratio. However, the Project would be required to pay park impact fees, which is a mechanism established by the City of Manteca to mitigate contributions to increased park demand. The funds collected through park impact fees are typically used by the City to develop new

park facilities or improve existing ones. The payment of fees would reduce any impact on parks and recreation facilities to a less than significant level.

v. Other public facilities?

Less than Significant Impact. The Project would introduce new residents to the area, which could incrementally increase demand for various public facilities such as courts, libraries, and hospitals. However, the Project's contribution to this increased demand is not expected to result in a substantial need for new or physically altered public facilities. The City and surrounding region are served by existing courts, libraries, and hospitals. These facilities are designed to accommodate a certain level of population growth, and the Project's contribution to that growth (i.e., 130 residents) is relatively small in the context of the overall service area. While the Project would add new residents, the increase in demand for these public services is expected to be incremental and within the capacity of existing facilities. The Project's impact on these services would be dispersed among the broader population served by these facilities. If such facilities are proposed for future expansion, the expansion would be subject to CEQA and further environmental review. The Project may also contribute impact fees that support the provision of public services, helping to ensure that service levels are maintained as the city grows. Impacts would be less than significant.

4.15.3 Mitigation Measures

None required.

4.16 RECREATION

	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?			X	
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?			X	

4.16.1 Environmental Setting

See Section 4.15 Public Services.

4.16.2 Impact Assessment

Would the Project:

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?

Less than Significant Impact. The Project would introduce new residents to the area, potentially increasing demand on existing park and recreational facilities. Based on the City of Manteca's 6th Cycle Housing Element Update, the 44-unit multi-family development is projected to add approximately 130 residents (using an average household size of 2.96 for rentals). This population increase would generate a demand for approximately 0.65 acres of parking, based on the City's General Plan recommendation for five (5) acres per 1,000 residents. The Project proposes 21,830 sf. (0.50 acres) of on-site community open space, including both ground-level and roof deck areas. While this on-site open space provides recreational opportunities for residents, it does not fully meet the projected parkland demand generated by the Project, according to the General Plan standard.

However, the Project would be required to pay park impact fees, a mechanism established by the City of Manteca to mitigate the increased demand for parks. These fees, as detailed in MMC, Fee Schedule IV, contribute to funding the development of new park facilities and the improvement of existing ones. This financial contribution ensures that the Project would pay its fair share toward maintaining adequate park and recreational facilities in the city. Because the Project would pay park impact fees to offset the increased demand, the Project's contribution to park usage is not anticipated to result in substantial physical deterioration of existing facilities or accelerating such deterioration. Impacts would be less than significant.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less than Significant Impact. The Project proposes 21,830 sf. (0.50 acres) of on-site community open space, including both ground-level and roof deck areas. This on-site open space is considered an amenity for residents and is not intended to serve as a public park or regional recreational facility. Therefore, the project does not require the construction or expansion of public recreational facilities. The on-site open space would not have an adverse physical effect on the environment, as it will be designed and constructed in compliance with all applicable regulations including development standards contained in the MMC as well as regulations related to landscaping, water use, and drainage. Therefore, impacts would be less than significant.

4.16.3 Mitigation Measures

None required.

4.17 TRANSPORTATION

	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?			X	
b)	Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d)	Result in inadequate emergency access?			X	

4.17.1 Environmental Setting

Wawona Street forms the southernly boundary of the Project site. Wawona Avenue is an existing east-west, three-lane street. There is an existing driveway from the single-family lot (APN 222-100-14). There are no existing pedestrian facilities adjacent to the site. There is an existing class III bicycle facility, which is a shared lane for bicycles and motor vehicles, on Wawona Street. There are no existing or planned transit facilities adjacent to the Project site. The nearest transit stops to the Project site are Fishback Road at Wawona Street and South Airport Way at Daniels Street. The transit stops are operated by Manteca Transit.

Manteca 2043 General Plan

The Manteca 2043 General Plan Circulation Element establishes goals, policies, and implementation measures to provide for complete streets and bicycle and pedestrian facilities. The following goals and policies are generally applicable to the proposed Project.

Goal C-1 *Provide for a complete multimodal circulation system designed for the safe, balanced movement of all users, including children, persons with disabilities, seniors, and underserved populations and goods and services to destinations inside and outside of Manteca while minimizing vehicle miles traveled (VMT) and public costs to build and maintain the system.*

> ***Policy C-1.1*** *Strive to balance levels of service (LOS) for all modes (vehicle, transit, bicycle, and pedestrian) to maintain a high level of access and mobility, while developing a safe, complete, and efficient circulation system. The impact of new development and land use proposals on VMT, LOS, and accessibility for all modes should be considered in the review process.*
>
> ***Policy C-1.2*** *To the extent feasible, strive for a vehicular LOS of D or better during weekday AM and PM peak hours at all streets and intersections, except in the Downtown area or in accordance with Policy C-1.3.*

Policy C-1.3 At the discretion of the City Council, certain locations may be allowed to fall below the City's LOS standard established by C-1.2 under the following circumstances: a. Where constructing facilities with enough capacity to provide LOS D is found to be unreasonably expensive. b. Where conditions are worse than LOS D and caused primarily by traffic from adjacent jurisdictions. d. Where maintaining LOS D will be a disincentive to use transit and active transportation modes (i.e., walking and bicycling) or to the implementation of transportation or land use improvements that would reduce vehicle travel. Examples include roadway or intersection widening in areas with substantial pedestrian activity or near major transit centers.

Goal C-4 Provide a safe, secure, comfortable, and convenient pedestrian and bicycle system that connects riders of all ages and abilities to schools, including safe routes to schools, retail, employment centers, public facilities, and parks.

Policy C-4.3 Provide a sidewalk and bicycle route system that serves all pedestrian and bicycle users and meets the latest guidelines related to the Americans with Disabilities Act (ADA).

Policy C-4.5 Expand the existing network of off-street bicycle facilities as shown in the City's Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails. Further, the City shall strive to develop: 1) a "city-loop" Class I bike path for use by both bicyclists and pedestrians that links Austin Road, Atherton Drive, Airport Way, and a route along or near Lathrop Road to the Tidewater bike path and its existing and planned extensions, and 2) an off-street bicycle trail extension between the Tidewater Bike Trail near the intersection of Moffat Boulevard and Industrial Park Drive to the proposed regional route between Manteca and Ripon.

Policy C-4.6 Provide on-street Class II bike lanes, Class IV protected bike lanes, or off-street Class I bike paths along major collector and arterial streets whenever feasible.

Policy C-4.7 Facilitate bicycle travel through residential streets through signage necessary to communicate the presence of Class III bicycle routes on residential streets that have sufficiently low volumes as to not require bike lanes or have narrower street cross sections that assist in calming traffic.

Policy C-4.8 Provide sidewalks and/or walkways connecting to the residential neighborhoods, primary public destinations, major public parking areas, transit stops, and intersections with the bikeway system.

Policy C-4.9 Provide sidewalks along both sides of all new streets in the City and add sidewalks to fill gaps on existing streets as identified in the Active Transportation Plan.

Goal C-5 Maintain a coordinated, efficient bus service that provides an effective alternative to automobile use, serves members of the community that cannot drive, and includes regional transit connections that link Manteca to other destinations.

Policy C-5.9 Encourage land uses and site developments that promote public transit along fixed route public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.

Policy C-5.10 Ensure that development projects provide adequate facilities to accommodate school buses, including loading and turn-out locations in multifamily and other projects that include medium and high density residential uses, and that the school districts are provided an opportunity to address specific needs

associated with school busing.

The General Plan Circulation Element also identifies planned pedestrian and bicycle facilities (Figure C-2: Active Transportation Plan – Pedestrian Network and Figure C-3: Active Transportation Plan – Bicycle Network). As shown in the Circulation Element, sidewalks are planned along Wawona Street.

Senate Bill 743 Implementation Policy

The City of Manteca's Transportation Impact Analysis Guidelines document provides guidance to City staff, applicants, and consultants on the requirements to evaluate transportation impacts for projects in the city for the purpose of determining impacts under the California Environmental Quality Act (CEQA). The Guidelines specifically address the requirements of Senate Bill (SB) 743 which mandates specific types of CEQA analysis of transportation projects, effective July 1, 2020.

Consistent with State CEQA Guidelines section 15064.3, the City of Manteca has adopted thresholds of significance to determine when a project will have a significant transportation impact based on VMT. The City has developed screening criteria to streamline the analysis for projects that meet certain criteria, referred to as Project Screening. Per the Guidelines, a project will require a detailed Vehicle Miles Traveled (VMT) analysis unless it meets at least one of the City's five screening criteria:

- Small Projects
- Provision of Affordable Housing
- Local-Serving Retail
- Project Located in a High-Quality Transit Area
- Project Located in a Low VMT Area

Of these screening criteria, the Small Projects is most applicable to the Project. For the City of Manteca, projects consistent with the City's General Plan can be screened if the project would generate fewer than 1,000 average daily trips (ADT), and projects not consistent with the City's General Plan can be screened if the project would generate fewer than 500 ADT.

Local Transportation Analysis

A Local Transportation Analysis (LTA) was prepared for the Project by Wood Rodgers. The purpose of the LTA is to evaluate the Project's on-site and off-site traffic operations. The Airport Way and Wawona Street and Fishback Road and Wawona Street intersections were included in the analysis. The LTA concluded that the Project would not cause an operational deficiency. The LTA is provided in Appendix F.

4.17.2 Impact Assessment

Would the Project:

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

Less Than Significant Impact. The Project would be required to comply with all project-level requirements implemented by a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Compliance is further discussed below. Overall, the Project would not conflict with

a program plan, ordinance, or policy addressing the circulation system and a less than significant impact would occur.

Roadway Facilities

The Project site would be accessible via one (1) point of ingress/egress on Wawona Street. The Project would also install right-of-way improvements along Wawona Street frontage (i.e., concrete curb, gutter, sidewalk, and paving per City of Manteca standards). An inside/outside turning radius is also proposed according to the City of Manteca standards for fire and solid waste vehicle access. Further, as discussed in the LTA prepared for the Project, The proposed project is expected to add 357 daily trips with 36 AM and 39 PM peak hour trips; while most intersections will maintain acceptable operation, Airport Way & Wawona Street currently operates at an unacceptable LOS E during PM peak hours, but is projected to improve with a future signal installation by a related project ("Rotten Robbie"). In addition, queuing at the Project's access gate is anticipated to be within the storage space provided. The Project would be required to submit public improvement plans for off-site improvements through the building permit process, for review and approval by the City to ensure improvements would be consistent with adopted standards, specifications, and approved street plans. Through compliance, the Project would result in improvements to the roadway network consistent with the goals, objectives, and policies of the General Plan as shown and described in the Circulation Element. Impacts would be less than significant.

Pedestrian and Bicycle Facilities

There are no existing pedestrian facilities (i.e., sidewalks) along Project site frontage. The Project would install right-of-way improvements along Wawona Street frontage including sidewalks. There are existing class III bicycle facilities on Wawona Street, which wouldn't be affected by the Project. Off-site improvements would be verified and ensured through the building permit process in accordance with City standards and specifications. Therefore, the Project would be consistent with the General Plan and thereby would not conflict with a program, plan, ordinance, or policy addressing bicycle and pedestrian facilities. Impacts would be less than significant.

Transit Facilities

There are no existing or planned transit facilities adjacent to the Project site as identified by the General Plan. Therefore, the Project would not conflict with a program, plan, ordinance, or policy addressing transit facilities. Impacts would be less than significant.

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

Less than Significant Impact. The trip generation data contained in the ITE Trip Generation Manual, 11th Edition, was used to approximate the number of trips generated by the Project. The ITE land use category for Multifamily Housing (Low-Rise) (ITE Code 220) was used to represent the proposed multi-family building. The Project trip generation is shown in Table 4-18. As shown, the Project is anticipated to generate a total of 357 weekday daily trips (Average Daily Trips or ADT). Per the City of Manteca's Transportation Impact Analysis Guidelines, projects not consistent with the City's General Plan can be screened from further VMT analysis if the project would generate fewer than 500 ADT. Since the proposed Project would generate fewer than 500 ADT, the Project can be screened out from further VMT analysis. Therefore, the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Table 4-18 Project Trip Generation

Land Use	ITE Code	Quantity	Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Multifamily Housing (Low Rise)	220	44	DU	357	9	27	36	25	14	39

c) 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 design does not include any hazardous geometric features. The Project would include off-site improvements on Wawona Street (e.g., curb, gutter, sidewalk) and connections to existing utilities (e.g., water, sewer, power, stormwater drainage). These improvements are limited in scope and would connect to and improve the existing street and utility network. Site access would be provided via single ingress/egress points on Wawona Avenue. Adequate turning radii would be provided for fire and solid waste vehicles. Public improvement plans would be submitted for City review and approval during the building permit process to ensure consistency with City standards, specifications, and approved street plans, minimizing traffic hazards. Finally, the proposed residential development would be compatible with the existing and planned residential uses in the surrounding area. Therefore, the Project would not substantially increase hazards due to roadway design or incompatible land uses, resulting in a less than significant impact.

d) Result in inadequate emergency access?

Less than Significant Impact. The Project site would be accessible via the existing roadway network, with proposed ingress/egress on Wawona Street. The Project would not alter or impede any primary evacuation routes. While temporary lane closures may occur during construction, these would be managed through approved traffic control plans and encroachment permits to maintain emergency vehicle access. Post-construction, the Project would maintain adequate emergency access, including appropriate turning radii for emergency vehicles, clearly marked fire lanes, and sufficient hydrant access. The City's review and approval process would ensure compliance with all applicable codes and regulations related to emergency access and evacuation. Therefore, the Project would not impair emergency response or evacuation plans, and the impact is considered less than significant.

4.17.3 Mitigation Measures

None required.

4.18 TRIBAL CULTURAL RESOURCES

Would the Project: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or,			X	
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X	

4.18.1 Environmental Setting

See Section 4.5. Cultural Resources.

4.18.2 Impact Assessment

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:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

Less than Significant Impact. Public Resources Code Section 21074 defines a "tribal cultural resource" as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources or listed in a local register of historical resources. Public Resources Code (PRC) Section 5020.1(k) further clarifies that a local register of historical resources is a list of properties officially designated as historically significant by a city or county through a local ordinance or resolution.

As discussed in Section 4.5 Cultural Resources, a CHRIS record search, consultation with Native American tribes, and a Sacred Lands File check were conducted for the project site and surrounding area. These efforts, which specifically sought to identify known tribal cultural resources, did not identify any such resources within the Project boundaries. Therefore, the Project would not impact any known tribal cultural resources listed or eligible for listing in the California Register or a local register.

However, recognizing the possibility of encountering undiscovered tribal cultural resources during ground-disturbing activities, the Project would be conditioned to comply with General Plan *Implementation Measure RC-10j*. This measure is designed to protect any inadvertently discovered cultural resources, including tribal cultural resources as defined in PRC Section 21074. Specifically, *Implementation Measure RC-10j* outlines procedures for halting work, notifying the appropriate authorities, consulting with potentially affected tribes, and implementing appropriate mitigation measures. This measure directly addresses potential impacts to undiscovered tribal cultural resources that might meet the criteria of PRC Section 21074.

Therefore, considering the negative findings of the record search and tribal consultation regarding known resources, and the implementation of *Implementation Measure RC-10j* to address potential impacts to undiscovered resources, the Project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource. Potential impacts to unknown resources, if any, will be reduced to a less than significant level through the procedures outlined in *Implementation Measure RC-10j*. Impacts would be less than significant.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact. Public Resources Code (PRC) Section 5024.1 outlines criteria for determining the historical significance of a resource. While the Project site has not been formally designated as a historical resource by the City of Manteca under this section, undiscovered tribal cultural resources, potentially meeting the criteria of PRC 5024.1, could be encountered during ground-disturbing activities.

As discussed previously, a CHRIS record search, tribal consultation, and a Sacred Lands File check were conducted. These efforts did not identify any known tribal cultural resources on the project site. However, the possibility of encountering undiscovered resources, potentially meeting the significance criteria of PRC Section 5024.1, remains.

To address this possibility, the Project would be conditioned to comply with General Plan *Implementation Measure RC-10j*. This measure provides a framework for evaluating and mitigating any inadvertently discovered cultural resources, including those that may be determined to be significant under PRC Section 5024.1. Specifically, *Implementation Measure RC-10j* outlines procedures for halting work, notifying the appropriate authorities, consulting with potentially affected tribes, and implementing appropriate mitigation measures.

Therefore, considering the negative findings of the record search and tribal consultation regarding known resources, and the implementation of RC-10j to address potential impacts to undiscovered resources that might meet the criteria of PRC Section 5024.1, the Project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource. Potential impacts to unknown resources, if any, will be reduced to a less than significant level through the procedures outlined in *Implementation Measure RC-10j*. Impacts would be less than significant.

4.18.3 Mitigation Measures

None required.

4.19 UTILITIES AND SERVICE SYSTEMS

	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 effect?			X	
b)	Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
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?			X	
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?			X	
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

4.19.1 Environmental Setting

The Project Site is within Manteca city limits and thus, would be required to connect to the city's water, wastewater, and stormwater services. Natural gas, electricity, and telecommunications are provided by private companies. Each utility system is described below.

Water

Water supply, usage, and services are described in Section 4.10.

Wastewater

The City of Manteca Public Works Department operates and maintains the City's sanitary sewer system. According to the City's 2024 Wastewater Collection System Master Plan, the City's sewer collection system includes more than 19,500 service connections, 4,672 manholes, approximately 250 miles of 4-inch to 60-inch collector and trunk

sewer mains, and 21 miles of sewer force mains that the City owns and operates. [38] The City is divided into three (3) separate service sewer shed areas: North, South, and Central. The Project site is located within the Central shed. The City's wastewater is processed through the Manteca Wastewater Quality Control Facility (WQCF), which sees flows of approximately 6.5 million gallons per day (mgd). Due to the City's relatively flat topography, the sewers flows are conveyed via 39 private and publicly owned lift stations throughout the City.

Solid Waste

The City of Manteca Public Works department provides solid waste collection services for residential and commercial developments in the City. According to the General Plan EIR, solid waste is collected by the City and received by the Lovelace Materials Recovery Facility and Transfer Station, which is owned and operated by San Joaquin County. The Lovelace facility is permitted to receive 1,300 tons of waste per day, however, the average daily tonnage is less than half this amount. Lovelace Transfer Station is used to process and ship the material to its final destination. The majority of Manteca's solid waste is landfilled at the Forward Sanitary Landfill located northeast of the City, with the remainder being sent to Foothill Sanitary Landfill and North County Landfill.

Manteca 2043 General Plan

The Manteca 2043 General Plan Community Facilities and Services Element includes policies to increase recycling service while maintaining adequate solid waste service for all users.

Goal CF-11 *Increase recycling service while maintaining adequate solid waste service for all users.*

> ***Policy CF-11.1*** *Continue to require mandatory refuse collection throughout the city.*
>
> ***Policy CF-11.2*** *Ensure adequate solid waste collection infrastructure to serve existing and future development and the safe disposal of waste.*
>
> ***Policy CF-11.3*** *Implement and enforce the provisions of the City's Source Reduction and Recycling Program and update the program as necessary to meet or exceed the State waste diversion requirements.*
>
> ***Policy CF-11.4*** *Reduce municipal waste generation by increasing recycling, on-site composting, and mulching, where feasible, at municipal facilities, as well as using resource efficient landscaping techniques in new or renovated medians and parks.*
>
> ***Policy CF-11.5*** *Encourage residential, commercial, and industrial recycling and reuse programs and techniques.*
>
> ***Policy CF-11.6*** *Coordinate with and support other local agencies and jurisdictions in the region to develop and implement effective waste management strategies and waste-to-energy technologies.*
>
> ***Policy CF-11.7*** *Support the continued use of the Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.*

[38] City of Manteca. (2024). 2024 Wastewater Collection System Master Plan. Accessed January 31, 2025. https://www.manteca.gov/home/showpublisheddocument/6599/638482798094370000

Stormwater

Stormwater services are described in Section 4.10.

Natural Gas and Electricity

Natural gas and Electricity services are provided by Pacific Gas & Electric Company.

Telecommunications

Accordingly, telecommunications providers in the area incrementally expand and update their service systems in response to usage and demand. Upon request, the site would be connected to existing broadband infrastructure and subject to applicable connection and service fees.

4.19.2 Impact Assessment

Would the Project:

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?

Less than Significant Impact. The Project would connect to existing municipal water mains in Wawona Avenue. The existing mains would not require upsizing or relocation to facilitate the proposed development. The water system improvements for the Project would be designed and constructed in accordance with City standards and requirements, as verified through the building permit process. As discussed in criterion b), the Project's estimated water demand would be 5.25 AFY which would fall within the projected supplies for all normal years and dry years. Further, the Project's adherence to regulatory requirements, implementation of water conservation measures, and payment of capacity and connection fees would ensure its water demand remains within acceptable limits, thus minimizing its impact on groundwater supplies and resulting in a less than significant impact.

The Project would also connect to existing municipal sanitary sewer mains in Wawona Avenue. The existing mains would not require upsizing or relocation to facilitate the proposed development. The sewer system improvements for the Project would be designed and constructed in accordance with City standards and requirements, as verified through the building permit process. As discussed in criterion c), the Project's estimated wastewater demand would be 5.72 AFY. The estimated generation for the Project represents 0.05% of Manteca's allocated capacity and falls within the WQCF's existing capacity to treat the Project's wastewater. Further, the Project's would be required to pay sewer facilities development fees and connection fees, contributing to the funding of adequate sewer facilities. For these reasons, impacts would be less than significant.

The Project would connect to existing storm drain facilities in Wawona Avenue and connect to the Robert Estate Storm Drain Area of Benefit. The Project would incorporate storm water drainage infrastructure designed in compliance with all applicable codes and standards to manage stormwater runoff effectively, as ensured through City reviewed and approved grading and drainage plans. As discussed in Section 4.10, the Project's compliance with the SWPPP, approved grading and drainage plan, and implementation of BMPs would control and direct runoff. The existing facilities would not require relocation or expansion of new facilities to facilitate the proposed development. Impacts would be less than significant.

PG&E would provide natural gas and electricity, and a telecommunications provider would serve the site. The Project would relocate and underground the utilities on the site including any overhead electrical or telecommunication facilities along the site frontage. The construction and operations of the Project would be subject to compliance with applicable energy efficiency regulations including CALGreen, Title 24, and CARB. No new expanded facilities would be required for electric, gas, or telecommunications facilities. Impacts would be less than significant.

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

Less than Significant Impact. Water supply reliability is assessed in the City's 2020 Urban Water Management Plan (UWMP) based on the characteristics of the City's water supplies during various water year types, including Normal Year, Single Dry Year, and Multiple Dry Years (or Five-Consecutive-Year Drought). The supply, demand, and surplus for the three hydrologic conditions over a 20-year period are shown in Table 4-19. As shown, water supply assumed to be 100 percent reliable through the three (3) hydrologic conditions over a 20-year period.

Table 4-19 City of Manteca Water Supply and Demand Comparison, Hydrologic Conditions, 20 years

	2025	2030	2035	2040	2045
Normal Year					
Total Supply	21,945	27,682	29,245	37,809	39,373
Total Demand	17,700	22,813	25,374	28,260	31,513
Surplus	**4,245**	**4,869**	**3,871**	**9,549**	**7,860**
Single Dry Year					
Total Supply	20,105	25,842	27,405	34,849	36,413
Total Demand	17,700	22,813	25,374	28,260	31,513
Surplus	**2,405**	**3,029**	**2,031**	**6,589**	**4,900**
Multiple Dry Years					
Year 1					
Total Supply	21,945	27,682	29,245	37,809	39,373
Total Demand	17,700	22,813	25,374	28,260	31,513
Surplus	**4,245**	**4,869**	**3,871**	**9,549**	**7,860**
Year 2					
Total Supply	21,945	27,682	29,245	37,809	39,373
Total Demand	17,700	22,813	25,374	28,260	31,513
Surplus	**4,245**	**4,869**	**3,871**	**9,549**	**7,860**
Year 3					
Total Supply	20,105	25,842	27,405	34,849	36,413
Total Demand	17,700	22,813	25,374	28,260	31,513
Surplus	**2,405**	**3,029**	**2,031**	**6,589**	**4,900**
Year 4					
Total Supply	20,105	25,842	27,405	34,849	36,413
Total Demand	17,700	22,813	25,374	28,260	31,513
Surplus	**2,405**	**3,029**	**2,031**	**6,589**	**4,900**
Year 5					
Total Supply	21,945	27,682	29,245	37,809	39,373
Total Demand	17,700	22,813	25,374	28,260	31,513
Surplus	**4,245**	**4,869**	**3,871**	**9,549**	**7,860**

Source: City of Manteca 2020 Urban Water Management Plan

To identify the Project's estimated water demand, land use-based demand factors contained in the City's 2024 Water Master Plan were used. The existing land use demand, based on the existing General Plan land use designation, and the estimated demand for the proposed Project are shown in Table 4-20. As shown, the total water use in acre feet per year (AFY) under existing conditions would be 1.24 AFY compared to 5.25 AFY for the proposed Project which represents a net increase of 4.01 AFY. The Project's net increase in demands would fall within the projected surplus for all normal years and dry years. Therefore, the City would have sufficient water supplies to serve the Project and planned future demands, and impacts would be less than significant.

Table 4-20 Existing Land Use Demand and Estimated Demand for Proposed Project

Development Type	Total Units	Total Area (Acres)	Land Use	Unit Demand Factor	Total Water Demand (gpd)	Total Water Use (AFY)
Existing Land Use Water Demand based on General Plan Update						
Single-Family	3*	1.67	LDR	370 gpd/du	1,110	1.24
Total Existing Land Use Demand					**1,110**	**1.24**
Estimated Water Demand for Proposed Project						
Multi-Family	44	1.67	HDR	2,810 gpd/ac	4,692	5.25
Total Project Demand					**4,692**	**5.25**
Net Increase from Existing Land Use Demand					**3,582**	**4.01**

** The Project site has a City of Manteca General Plan planned land use designation of Very Low Density Residential (VLDR), which supports a maximum of two (2) dwelling units per acre. Therefore, the Project site under the existing land use designation could be developed with approximately three (3) units (1.67 acres x 2 dwelling units per acre = 3.34 units).*

Furthermore, as discussed under Section 4.10, adherence to connection requirements (e.g., compliance with California Plumbing Code, efficient appliances, efficient landscaping, etc.) should not negatively impact water supply or impede water management. In particular, the proposed Project would be required to be built accordance with all mandatory outdoor water use requirements as outlined in the applicable California Green Building Standards Code, Title 24, Part 11, Section 4.304 – Outdoor Water Use and verified through the building permit process. As a residential development that would contain landscaping pursuant to SMC regulations, future development shall comply with the updated Model Water Efficient Landscape Ordinance (MWELO) (California Code of Regulations, Title 23, Chapter 2.7, Division 2), as implemented and enforced through the building permit process. Furthermore, the Project would be required to pay water facilities development fees and connection fees as per Chapter 13.38 of the Manteca Municipal Code, contributing its fair share of costs for infrastructure improvements. Therefore, through compliance and payment of fees, the potential for the Project to substantially decrease groundwater supplies is limited and impacts would be less than significant.

Overall, based on the information collected from the UWMP, the Project would not generate significantly greater water demand as to substantially decrease groundwater supplies. Additionally, adherence to connection requirements and recommendations pursuant to water conservation efforts as well as compliance with applicable California Green Building Standards Code and MWELO would reduce water demand and reduce the potential for the Project to substantially decrease water supply available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. For these reasons, the Project would have a less than significant impact.

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?

Less than Significant Impact. According to the General Plan EIR, the City of Manteca's Water Quality Control Facility has a dry weather flow of approximately 7.2 million gallons per day (mgd). Of this, 8.42 mgd is allocated to Manteca. As of 2020, Manteca's average annual wastewater flow was 7.2 mgd, representing 85.5% of its allocated capacity.

The existing land use wastewater generation, based on the existing General Plan land use designation, and the estimated demand for the proposed Project are shown in Table 4-21. As shown, the total generation under existing conditions would be 2.00 AFY compared to 5.72 AFY for the proposed Project which represents a net increase of 3.72 AFY. The estimated generation for the Project represents 0.05% of Manteca's allocated capacity. Therefore, the WQCF has sufficient capacity to treat the Project's wastewater.

Table 4-21 Existing Wastewater Generation and Estimated Generation for Proposed Project

Development Type	Total Units	Total Area (Acres)	Land Use	Wastewater Generation Factor	Total Wastewater Generation (gpd)	Total Wastewater Generation (AFY)
Existing Wastewater Generation based on General Plan Update						
Single-Family	3*	1.67	LDR	1,073 gpd/ac	1,791	2.00
Total Existing Land Use Generation					**1,791**	**2.00**
Estimated Wastewater Generation for Proposed Project						
Multi-Family	44	1.67	HDR	3,060 gpd/ac	5,110	5.72
Total Project Generation					**5,110**	**5.72**
Net Increase from Existing Land Use Demand					**3,319**	**3.72**

** The Project site has a City of Manteca General Plan planned land use designation of Very Low Density Residential (VLDR), which supports a maximum of two (2) dwelling units per acre. Therefore, the Project site under the existing land use designation could be developed with approximately three (3) units (1.67 acres x 2 dwelling units per acre = 3.34 units).*

Furthermore, the Project would be required to pay sewer facilities development fees and connection fees as per Chapter 13.38 of the Manteca Municipal Code, contributing to the funding of adequate sewer facilities. Payment of fees would ensure that sufficient capacity is available and that the Project's impact on existing facilities are adequately offset. For these reasons, impacts would be less than significant.

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?

Less than Significant Impact. CALGreen mandates that locally permitted new residential construction and demolition projects recycle and/or salvage for reuse at least 65% of nonhazardous construction and demolition debris. This requirement applies to any City-issued building or demolition permit generating at least eight (8) cubic yards of material. The Project would therefore implement waste reduction and recycling techniques during construction, as mandated by CALGreen and enforced through the building permit process. This compliance ensures that construction-related solid waste would not exceed state or local standards, local infrastructure capacity, or hinder solid waste reduction goals, resulting in a less than significant impact.

Project operations are anticipated to generate approximately 32.5 tons of solid waste per year as estimated by CalEEMod (Appendix A). The estimation accounts for compliance with AB 939. Solid waste generated through Project operations would account for less than 0.1 percent of the daily permitted throughput capacity of the landfill. As such, Project operations are not anticipated to generate solid waste in excess of state or local standards, in excess of the capacity of the local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, the Project would have a less than significant impact.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. Solid waste generated by the Project's construction and operation would be handled, transported, and disposed of in accordance with AB 939 and CALGreen regulations. As a multi-family development, the project is also subject to AB 341 (mandatory commercial recycling) and AB 827 (customer access to recycling). AB 341 mandates recycling services for businesses generating four or more cubic yards of waste weekly and multi-family properties with five or more units. AB 827 requires accessible and clearly marked recycling and organics recycling containers adjacent to trash containers. Compliance with these regulations would be ensured through the building permit process, reducing solid waste impacts to less than significant levels.

4.19.3 Mitigation Measures

None required.

4.20 WILDFIRE

If located in or near state responsibility 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?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
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?			X	
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?			X	

4.20.1 Environmental Setting

According to the General Plan EIR, the majority of the Manteca Planning Area is considered to have no fire threat, with some areas having Low to Moderate threat. The Project site is not located in or near state responsibility or lands classified as moderate, high, or very high fire hazard severity zones as identified by Cal Fire.[39] Rather, the Project Site is within an "area of local responsibility" and in an area of low fire risk. As an area of local responsibility, the Manteca Fire Department is responsible for providing fire protection services (See Section 4.15).

Manteca 2043 General Plan

The Manteca 2043 General Plan Community Facilities and Services Element includes the following goals and policies to mitigate the risks posed by wildfires through community preparedness, adequate infrastructure and rapid response:

[39] California Department of Forestry and Fire Protection. Fire Hazard Severity Zone Viewer. Accessed on February 3, 2025, https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/

Goal CF-3 Ensure the provision of high quality and responsive fire protection services.

Policy CF-3.1 Through adequate staffing and station locations, maintain a maximum five-minute travel response time 90% of the time for fire and emergency calls, an overall fire insurance (ISO) rating of 2 or better for all developed areas within the City, and a minimum staffing of 3 personnel for all fire stations.

Policy CF-3.2 Provide fire services to serve the existing and projected population.

Policy CF-3.3 Periodically review, and if necessary amend, the criteria for determining the circumstances under which fire service will be enhanced and ensure adequate levels of service are provided to older, low income, and disadvantaged areas.

Policy CF-3.4 Design and maintain roadways in such a way so as to maintain acceptable emergency vehicle response times.

Policy CF-3.5 Ensure that new development is designed, constructed, and equipped consistent with the requirements of the California Fire Code in order to minimize the risk of fire.

Policy CF-3.6 Ensure that new development and existing development, including older, low income, and disadvantaged areas, is served with adequate water volumes and water pressure for fire protection.

Policy CF-3.7 Support rehabilitation and upgrades to bring disadvantaged, low income, and older areas into conformance with the California Fire Code requirements to minimize the risk of fire.

Policy CF-3.8 Seek to build relationships between the community and fire protection and emergency services providers through programs such as meet and greets.

Implementation Measure CF-3a Continuously monitor response times and provide the City Council with an annual report on the results of the monitoring.

Implementation Measure CF-3b Continue to enforce the California Building Code and the California Fire Code to ensure that all construction implements fire-safe techniques, including fire resistant materials, where required.

Implementation Measure CF-3c As part of the City's existing development review process for new projects, the Fire Department will continue to make determinations on projects' potential impacts on fire protection services. Requirements will be added as conditions of project approval, if appropriate.

Implementation Measure CF-3d The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for fire engines and emergency response.

4.20.2 Impact Assessment

If located in or near state responsibility or lands classified as very high fire hazard severity zones, Would the Project:

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

Less than Significant Impact. The Project site would be accessible via the existing roadway network, with proposed ingress/egress on Wawona Street. The Project would not alter or impede any primary excavation routes identified by the City's adopted emergency response plan or emergency evacuation plan. While construction activities may

require temporary lane closures, these would be short-term and managed through approved traffic control plans and encroachment permits to ensure that emergency vehicle access is always maintained. Post-construction, the Project would maintain emergency access that support emergency response, such as adequate turning radii for emergency vehicles, clearly marked fire lanes, ad sufficient hydrant access. The Project has been reviewed and conditioned by the City for compliance with all applicable codes and regulations, including those related to emergency access and evacuation, to ensure that the Project would not conflict with or impair emergency response plans or emergency evacuation plans. Therefore, impacts would be less than significant.

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

Less than Significant Impact. The Project site is located on a relatively flat, highly disturbed property with minimal slope. The site is not situated in a wildland or a Cal Fire-designated Fire Hazard Severity Zone (FHSZ). Furthermore, the site is within an "area of local responsibility." The flat terrain, lack of wildland vegetation, absence of prevailing winds that would exacerbate fire risk, and location outside a FHSZ reduces wildfire risk and the potential to expose occupants to significant pollutant concentrations from a wildfire or contribute to the uncontrolled spread of a wildfire. In addition, the development itself would be constructed in compliance with the CBC and local fire safety regulations, which include measures to minimize fire risk, such as sprinkler systems and fire hydrants. The transition from a vacant site to a developed site with impervious surfaces (e.g., pavement, roofs) would also reduce the potential for wildfire to spread compared to existing conditions. Therefore, impacts are less than significant.

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?

Less than Significant Impact. The Project is located within city limits and is served by existing, maintained infrastructure, including roads and utilities. The Project itself would include off-site improvements on Wawona Street (e.g., curb, gutter, sidewalk) and connections to existing utilities (e.g., water, sewer, power, stormwater drainage). These improvements are limited in scope and would connect to and improve the existing street and utility network. The addition of curb, gutter, and sidewalk on Wawona Street and connection to existing utilities are not anticipated to exacerbate fire risk. These improvements would not introduce new ignition sources. The design and construction of these improvements would be required to comply with all applicable City codes and regulations, including those related to fire safety, environmental protection, and traffic management. Through compliance, such infrastructure would not exacerbate fire risk or result in temporary or ongoing impacts to the environment and impacts would be less than significant.

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?

Less than Significant Impact. The Project site is located on relatively flat terrain with stable, native soil and is not in or near state responsibility areas or areas classified as Fire Hazard Severity Zones, or rivers or creeks that would be more susceptible to landslides. The Project would incorporate drainage infrastructure designed in compliance with all applicable codes and standards to manage stormwater runoff effectively, as ensured through City reviewed and approved grading and drainage plans. Therefore, the Project is not anticipated to expose people or structures to

significant risks, including downslope or downstream flooding or landslides because of runoff, post-fire slop instability, or drainage changes. Impacts would be less than significant.

4.20.3 Mitigation Measures

None required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
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)?		X		
c)	Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

4.21.1 Impact Assessment

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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation Incorporated. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Standard requirements that will be implemented through the entitlement process and the attached mitigation monitoring and reporting program have been incorporated in the project to

reduce all potentially significant impacts to less than significant, including *Mitigation Measures BIO-1, BIO-2, BIO-3, and NOI-1.* Therefore, the Project would have a less than significant impact with mitigation incorporated.

b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)

Less than Significant Impact with Mitigation Incorporated. 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. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. Standard requirements that will be implemented through the entitlement process and the attached mitigation monitoring and reporting program have been incorporated in the project to reduce all potentially significant impacts to less than significant, including *Mitigation Measures BIO-1, BIO-2, BIO-3, and NOI-1*. The Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increased need for housing, increase in traffic, air pollutants, etc.). As such, Project impacts are not considered to be cumulatively considerable given the insignificance of project induced impacts. The impact is therefore less than significant with mitigation incorporated.

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

Less than Significant Impact with Mitigation Incorporated. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Standard requirements that will be implemented through the entitlement process and the attached mitigation monitoring and reporting program have been incorporated in the project to reduce all potentially significant impacts to less than significant, including *Mitigation Measures BIO-1, BIO-2, BIO-3, and NOI-1*. Therefore, the Project would have a less than significant impact with mitigation incorporated.

5 MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM FOR WAWONA APARTMENTS

October 2025

This mitigation measure monitoring and reporting checklist was prepared pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15097 and Section 21081.6 of the Public Resources Code (PRC). The timing of implementing each mitigation measure is identified in in the checklist, as well as identifies the entity responsible for verifying that the mitigation measures applied to a Project are performed. Project applicants are responsible for providing evidence that mitigation measures are implemented. As lead agency, the City of Manteca is responsible for verifying that mitigation is performed/completed.

Mitigation Measures	Party Responsible for Implementing Mitigation	Timing of Verification	Responsible for Monitoring Verification	Verification of Completion	
				Date	Initials
Biological Resources					
Mitigation Measure BIO-1: *Conduct a Preconstruction Survey for Burrowing Owl and Implement Avoidance Measures. A qualified biologist(s) knowledgeable of the species should conduct a focused, preconstruction survey during the peak breeding season for burrowing owls (15 April to 15 July) prior to the start of ground-disturbing activities for the project to determine if burrowing owls are present on the project site and within 250 feet where access allows. The survey should be conducted in substantial compliance with the California Burrowing Owl Consortium's Survey Protocol and Mitigation Guidelines (CBOC, 1997), San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP, 2000) survey methodologies, and/or other survey and mitigation protocols recommended by the CDFW, to the extent feasible. All areas of suitable habitat proposed for ground disturbance will be surveyed. If burrowing owls are detected, buffers and mitigation per the*	Project Applicant	Prior to construction	City of Manteca		

Survey Protocol and Mitigation Guidelines will be implemented and the San Joaquin Council of Governments (SJCOG) shall be notified to initiate the Incidental Take process under the SJMSCP. *If burrowing owl(s) are found to occupy the site and avoidance is not possible, a qualified biologist knowledgeable of the species should conduct burrow exclusion during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping. Burrow closure should be implemented only where there are adjacent natural burrows and non-impacted sufficient habitat for burrowing owls to occupy with permanent protection mechanisms in place. Construction activities may proceed within buffer zones only with SJCOG and CDFW approval and with implementation of approved minimization measures. Ongoing surveillance should be conducted during any initial ground- disturbing activity or construction associated with each phase of project implementation to monitor colonization of the area by burrowing owls.*					
Mitigation Measure BIO-2: *If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors and song sparrows.* • *If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.*	Project Applicant	Prior to construction	City of Manteca		

• *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.*					
Mitigation Measure BIO-3: *A qualified biologist knowledgeable of the species should conduct a Swainson's hawk survey of the Project Site and the surrounding 0.5-mile-radius area, in substantial compliance with the "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (Swainson's Hawk Technical Advisory Committee 2000) during the normal bird breeding season (1 February through 15 September) prior to the start of any initial ground-disturbing activity or construction associated with each phase of project implementation, to the extent feasible. Additional pre-construction Swainson's hawk surveys should take place no more than 10 days prior to the start of ground-disturbing activities.* *If active nests are detected:* • *The project applicant shall immediately notify the San Joaquin Council of Governments (SJCOG), the Implementing Entity of the San Joaquin County Multi-Species Habitat*	Project Applicant	Prior to construction	City of Manteca		

Conservation and Open Space Plan (SJMSCP), to initiate the Incidental Take process.
• *Avoidance and minimization measures shall be prioritized under the SJMSCP guidelines, including:*
  ○ *Establishing a minimum 0.25-mile (1,320-foot) no-disturbance buffer around active nests.*
  ○ *If a reduced buffer is necessary, SJCOG and CDFW approval is required with implementation of noise and visual disturbance minimization measures.*
  ○ *Construction may proceed within the buffer only with written authorization from SJCOG and CDFW under the SJMSCP.*
 	
To mitigate for the loss of Swainson's hawk foraging habitat, the project applicant should provide Habitat Management (HM) lands to the California Department of Fish and Wildlife (CDFW) based on the following ratios, if feasible:
 	
▪ *If the project(s) is located within 1 mile of an active nest tree, the applicant should provide a minimum of 1 acre of HM lands for each 1 acre of urban development authorized.*
 	
▪ *If the project(s) is located within 5 miles of an active nest tree but greater than 1 mile from the nest tree, the applicant should provide a minimum of 0.75 acres of HM lands for each 1 acre of urban development authorized.*
 	
▪ *If the project(s) is located within 10 miles of an active nest tree but greater than 5 miles from the nest tree, the applicant should provide a minimum of 0.5 acres of HM lands for each 1 acre of urban development authorized.*					

The project applicant should provide for the long-term management of the HM lands by funding a management endowment, the interest of which should be used for managing the HM lands. The rate per HM acre should be established through consultation with CDFW. In addition to fee title acquisition of grassland habitat, mitigation could occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.					
Noise					
Mitigation Measure NOI-1: *Mechanical ventilation or air conditioning must be provided for all homes so that windows and doors can remain closed for sound insulation purposes.*	Project Applicant	Prior occupancy	City of Manteca		

6 REPORT PREPARATION

Names of Persons Who Prepared or Participated in the Initial Study:

Lead Agency		
Lead Agency	City of Manteca Development Services Department 1215 W Center Street, Suite 201 Manteca, CA 95337 (559) 456-8000	Toben Barnum, Associate Planner
Initial Study Consultant		
Initial Study	Precision Civil Engineering 1234 O Street Fresno, CA 93721 (559) 449-4500	Bonique Emerson, AICP, VP of Planning Jenna Chilingerian, AICP, Senior Planner Shin Tu, AICP, Senior Associate Planner Isaiah Medina, Assistant Planner
Technical Studies		
Acoustical Analysis	WJV Acoustics	Walter J. Van Groningen, President
Local Transportation Analysis	Wood Rodgers	Mario Tambellini, PE, TE Nicole Scappaticci, PE

7 APPENDICES

7.1 Appendix A: CalEEMod Results

Prepared by Precision Civil Engineering, Inc. dated 2/19/25.

Wawona Apartments Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Wawona Apartments
Construction Start Date	9/1/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	9.00
Location	37.79083449331864, -121.25063584240417
County	San Joaquin
City	Manteca
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2166
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	44.0	Dwelling Unit	1.67	12,303	6,210	—	142	—

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	14.0	15.7	0.02	0.57	6.33	6.89	0.52	3.02	3.54	—	2,609	2,609	0.11	0.02	0.43	2,620
2026	7.87	7.85	8.81	11.5	0.02	0.29	0.30	0.60	0.27	0.07	0.34	—	2,219	2,219	0.08	0.04	1.31	2,235
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.84	1.55	14.1	14.9	0.02	0.64	7.17	7.81	0.59	3.44	4.04	—	2,538	2,538	0.10	0.05	0.04	2,548
2026	1.35	1.13	8.84	11.2	0.02	0.29	0.30	0.60	0.27	0.07	0.34	—	2,191	2,191	0.08	0.05	0.03	2,207
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.36	0.30	2.50	2.97	0.01	0.10	0.17	0.26	0.09	0.07	0.16	—	545	545	0.02	0.01	0.12	548
2026	0.75	0.67	3.55	4.56	0.01	0.12	0.12	0.24	0.11	0.03	0.14	—	882	882	0.03	0.02	0.22	889
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.07	0.06	0.46	0.54	< 0.005	0.02	0.03	0.05	0.02	0.01	0.03	—	90.2	90.2	< 0.005	< 0.005	0.02	90.7
2026	0.14	0.12	0.65	0.83	< 0.005	0.02	0.02	0.04	0.02	0.01	0.03	—	146	146	0.01	< 0.005	0.04	147

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.98	0.91	0.80	7.48	0.02	0.01	1.52	1.54	0.01	0.39	0.40	—	1,822	1,822	0.07	0.08	5.75	1,854

Area	2.77	1.62	0.55	12.6	0.03	1.45	—	1.45	1.40	—	1.40	239	470	709	1.13	< 0.005	—	737
Energy	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	306	306	0.04	< 0.005	—	307
Water	—	—	—	—	—	—	—	—	—	—	—	3.43	3.36	6.79	0.35	0.01	—	18.1
Waste	—	—	—	—	—	—	—	—	—	—	—	17.5	0.00	17.5	1.75	0.00	—	61.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	3.77	2.54	1.50	20.1	0.05	1.47	1.52	3.00	1.42	0.39	1.81	260	2,601	2,861	3.33	0.09	5.83	2,978
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.84	0.92	6.55	0.02	0.01	1.52	1.54	0.01	0.39	0.40	—	1,691	1,691	0.08	0.09	0.15	1,719
Area	2.54	1.40	0.53	10.1	0.03	1.45	—	1.45	1.39	—	1.39	239	463	702	1.13	< 0.005	—	731
Energy	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	306	306	0.04	< 0.005	—	307
Water	—	—	—	—	—	—	—	—	—	—	—	3.43	3.36	6.79	0.35	0.01	—	18.1
Waste	—	—	—	—	—	—	—	—	—	—	—	17.5	0.00	17.5	1.75	0.00	—	61.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	3.47	2.25	1.60	16.7	0.05	1.47	1.52	3.00	1.42	0.39	1.81	260	2,463	2,723	3.34	0.10	0.24	2,837
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.80	0.82	6.20	0.02	0.01	1.44	1.45	0.01	0.37	0.38	—	1,637	1,637	0.07	0.08	2.36	1,665
Area	0.90	0.64	0.13	3.50	0.01	0.33	—	0.33	0.31	—	0.31	53.7	107	161	0.25	< 0.005	—	167
Energy	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	306	306	0.04	< 0.005	—	307
Water	—	—	—	—	—	—	—	—	—	—	—	3.43	3.36	6.79	0.35	0.01	—	18.1
Waste	—	—	—	—	—	—	—	—	—	—	—	17.5	0.00	17.5	1.75	0.00	—	61.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	1.79	1.45	1.11	9.77	0.02	0.35	1.44	1.79	0.34	0.37	0.70	74.7	2,053	2,128	2.46	0.09	2.45	2,219
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.16	0.15	0.15	1.13	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	271	271	0.01	0.01	0.39	276
Area	0.17	0.12	0.02	0.64	< 0.005	0.06	—	0.06	0.06	—	0.06	8.89	17.8	26.7	0.04	< 0.005	—	27.7
Energy	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	50.6	50.6	0.01	< 0.005	—	50.9

Water	—	—	—	—	—	—	—	—	—	—	—	0.57	0.56	1.12	0.06	< 0.005	—	3.00
Waste	—	—	—	—	—	—	—	—	—	—	—	2.90	0.00	2.90	0.29	0.00	—	10.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.33	0.27	0.20	1.78	< 0.005	0.06	0.26	0.33	0.06	0.07	0.13	12.4	340	352	0.41	0.02	0.41	367

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.98	0.91	0.80	7.48	0.02	0.01	1.52	1.54	0.01	0.39	0.40	—	1,822	1,822	0.07	0.08	5.75	1,854
Total	0.98	0.91	0.80	7.48	0.02	0.01	1.52	1.54	0.01	0.39	0.40	—	1,822	1,822	0.07	0.08	5.75	1,854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.92	0.84	0.92	6.55	0.02	0.01	1.52	1.54	0.01	0.39	0.40	—	1,691	1,691	0.08	0.09	0.15	1,719
Total	0.92	0.84	0.92	6.55	0.02	0.01	1.52	1.54	0.01	0.39	0.40	—	1,691	1,691	0.08	0.09	0.15	1,719
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.16	0.15	0.15	1.13	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	271	271	0.01	0.01	0.39	276
Total	0.16	0.15	0.15	1.13	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	271	271	0.01	0.01	0.39	276

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	111	111	0.02	< 0.005	—	112
Total	—	—	—	—	—	—	—	—	—	—	—	—	111	111	0.02	< 0.005	—	112
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	111	111	0.02	< 0.005	—	112
Total	—	—	—	—	—	—	—	—	—	—	—	—	111	111	0.02	< 0.005	—	112
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4	< 0.005	< 0.005	—	18.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4	< 0.005	< 0.005	—	18.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Total	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Total	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	32.2	32.2	< 0.005	< 0.005	—	32.3
Total	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	32.2	32.2	< 0.005	< 0.005	—	32.3

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	3.43	3.36	6.79	0.35	0.01	—	18.1
Total	—	—	—	—	—	—	—	—	—	—	—	3.43	3.36	6.79	0.35	0.01	—	18.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	3.43	3.36	6.79	0.35	0.01	—	18.1
Total	—	—	—	—	—	—	—	—	—	—	—	3.43	3.36	6.79	0.35	0.01	—	18.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.57	0.56	1.12	0.06	< 0.005	—	3.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.57	0.56	1.12	0.06	< 0.005	—	3.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	17.5	0.00	17.5	1.75	0.00	—	61.3
Total	—	—	—	—	—	—	—	—	—	—	—	17.5	0.00	17.5	1.75	0.00	—	61.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	17.5	0.00	17.5	1.75	0.00	—	61.3
Total	—	—	—	—	—	—	—	—	—	—	—	17.5	0.00	17.5	1.75	0.00	—	61.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.90	0.00	2.90	0.29	0.00	—	10.1

Total	—	—	—	—	—	—	—	—	—	—	—	2.90	0.00	2.90	0.29	0.00	—	10.1

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	239	216	180	83,053	2,137	1,928	1,606	741,356

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	198,784	204	0.0330	0.0040	606,870

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	1,789,646	106,534

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Apartments Mid Rise	32.5	—

7.2 Appendix B: CNDDB Occurrence Report

Prepared by Precision Civil Engineering, Inc. dated 2/20/25.

Multiple Occurrences per Page

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Manteca (3712172) OR Lathrop (3712173))

Ambystoma californiense pop. 1

Element Code: AAAAA01181

California tiger salamander - central California DPS

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G2G3T3
	State:	Threatened		**State:**	S3
	Other:	CDFW_WL-Watch List, IUCN_VU-Vulnerable			
Habitat:	**General:**	LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.			
	Micro:	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.			

Occurrence No.	290	**Map Index:**	11647	**EO Index:**	28418	**Element Last Seen:**	1996-04-11
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	1996-04-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2012-01-20

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.78368 / -121.27287	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4183219 E652087	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 02, SE (M)	**Acres:**	0.0

Location: SOUTH SIDE OF HWY 120, NEAR THE JUNCTION OF MCKINLEY ROAD, SOUTH OF LATHROP.

Detailed Location: 1974 OBSERVATION WAS ON THE MATLEY PROPERTY 2785 BRONZAN ROAD, W MCKINLEY.

Ecological: HABITAT DESCRIBED AS A SEASONAL POND CREATED BY THE BERM OF HWY 120. SITE IS SURROUNDED BY RESIDENTIAL DEVELOPMENT.

General: OBSERVED IN 1974 (S. MCGINNIS, PERSONAL COMMUNICATION). ABOUT 50 LARVAE OBSERVED ON 11 APR 1996.

Owner/Manager: PVT

Buteo swainsoni

Element Code: ABNKC19070

Swainson's hawk

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5
	State:	Threatened		**State:**	S4
	Other:	BLM_S-Sensitive, IUCN_LC-Least Concern			
Habitat:	**General:**	BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.			
	Micro:	REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.			

Occurrence No.	17	**Map Index:**	11557	**EO Index:**	27288	**Element Last Seen:**	1994-07-28
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1994-07-28
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-08

Quad Summary: Vernalis (3712163), Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.75016 / -121.33615	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4179399 E646580	**Elevation (ft):**	20
PLSS:	T02S, R06E, Sec. 20, N (M)	**Acres:**	0.0

Location: NORTHEAST QUARDANT OF I-5 AND KASSON ROAD, EAST OF BANTA.

Detailed Location: MAPPED TO VICINITY OF TERRITORIES SJ007 & SJ078 FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE. FEATURE REPRESENTS 2 NEST SITES, BOTH ACTIVE 1994; 1 NEAR FRONT ENTRANCE TO DEUEL INSTITUTE, 2ND NEAR TOM PAINE SLOUGH.

Ecological: NEST IN FRONT OF DEUEL INSTITUTE IN MATURE EUCALYPTUS. SURROUNDING HABITAT RIPARIAN, AGRICULTURE.

General: TWO ADULTS OBSERVED, BUT NO NEST FOUND IN 1979; NO BIRDS OR NESTS FOUND IN 1982. 2 NESTING PAIRS OBSERVED IN 1994, SUCCESS UNKNOWN.

Owner/Manager: PVT

Occurrence No.	18	**Map Index:**	11440	**EO Index:**	27287	**Element Last Seen:**	1993-07-28
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1993-07-28
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-22

Quad Summary: Lathrop (3712173), Union Island (3712174)

County Summary: San Joaquin

Lat/Long:	37.84422 / -121.38085	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4189766 E642461	**Elevation (ft):**	5
PLSS:	T01S, R05E, Sec. 13, NE (M)	**Acres:**	0.0

Location: WEST SIDE OF MIDDLE RIVER, IN THE VICINITY OF WING LEVEE ROAD BETWEEN HOWARD ROAD AND UNDINE ROAD, NORTH OF TRACY.

Detailed Location: TERRITORY SJ008 (1979-1983 DETECTIONS) AND "SJ" (1993 DETECTION, NO # ASSIGNED) FROM CDFW SWHA OBSERVATIONS DATABASE. GIVEN LOC FOR SJ008 "INTERSECTION UNDINE/HOWARD RD & WING LEVEE (RD)," MAPPED TO UTMS GIVEN FOR SJ, WHICH ARE APPROXIMATE.

Ecological: 1972 NEST IN WILLOW, 40' UP. 1993 NEST IN VALLEY OAK.

General: 3 OBSERVED FLYING ON 27 JUL 1979, AT LEAST 2 WERE YOY. 1 ADULT OBS, NO NEST FOUND IN 1981. 1 ADULT OBS ON NEST, A 2ND SOARING OVER FIELD TO SW ON 29 JUN 1982. NONE OBS, 1983. NESTING PAIR WITH 2 YOUNG OBS IN 1993, CHICKS FLEDGED BY 28 JUL.

Owner/Manager: PVT

Occurrence No.	386	**Map Index:**	21220	**EO Index:**	18632	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-10-28

Quad Summary:	Manteca (3712172)
County Summary:	San Joaquin

Lat/Long:	37.85625 / -121.14099	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4191494 E663540	**Elevation (ft):**	50
PLSS:	T01S, R08E, Sec. 07, SW (M)	**Acres:**	0.0

Location:	VICINITY OF JACK TONE ROAD ABOUT 0.5 MILE SOUTH OF THE WILDWOOD ROAD JUNCTION, 6 MI NE OF MANTECA.
Detailed Location:	1970 LOCALITY "6 MI NE OF MANTECA," ATTRIBUTED HERE. MAPPED TO TERRITORY #SJ051 FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE, "1/2 MI SSE OF JUNC JACK TONE RD & WILDWOOD RD." HOLT RECORDS GIVE LOCATION AS "JACK TONE RD X TEMPLE [CREEK]."
Ecological:	1980S-1990S NEST TREE WAS A LONE OAK SURROUNDED BY AGRICULTURAL FIELDS; CROP TYPES INCLUDED HAY, CORN, SUGAR BEETS, AND CRUCIFEROUS VEGETABLES. SURVEYOR'S NOTES AND AERIAL PHOTOGRAPHS INDICATE CONVERSION TO ORCHARD/VINEYARD.
General:	ACTIVE NEST IN VICINITY IN 1970. NESTING PAIR OBSERVED IN 1988, 0 YOUNG FLEDGED. ACTIVE NEST OBS IN 1990, 1 DOWNY CHICK ON 22 MAY. PAIR NESTED AGAIN IN 1991 BUT NEST FAILED. 3 YOUNG FLEDGED IN 1992. 2 ADULTS OBS BUT NO NEST FOUND IN 1994.
Owner/Manager:	PVT

Occurrence No.	387	**Map Index:**	21219	**EO Index:**	9047	**Element Last Seen:**	1990-05-31
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	1990-05-31
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1993-06-14

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.82271 / -121.33793	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4187445 E646281	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 20, SW (M)	**Acres:**	0.0

Location:	ROBERTS ISLAND, SOUTH OF THE JUNCTION OF UNDINE ROAD AND ROBERTS ROAD, 3 MI WEST OF LATHROP.
Detailed Location:	
Ecological:	NEST TREE IS A VALLEY OAK WITHIN A GROUP OF LARGE VALLEY OAKS AROUND FARM BUILDINGS; SURROUNDING HABITAT IS AGRICULTURAL LAND.
General:	DFG SWHA #SJ057. ONE ADULT OBSERVED CARRYING A VOLE TO THE NEST, INDICATING THE PRESENCE OF NESTLING (S), ALTHOUGH NONE WERE VISIBLE. 2 YOUNG WERE EVENTUALLY FLEDGED IN 1990.
Owner/Manager:	PVT

Occurrence No.	391	**Map Index:**	21509	**EO Index:**	17717	**Element Last Seen:**	2009-06-25
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-25
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-23

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.78646 / -121.30946	**Accuracy:**	specific area
UTM:	Zone-10 N4183469 E648859	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 04 (M)	**Acres:**	22.0

Location: WEST SIDE OF THE SAN JOAQUIN RIVER JUST NORTH OF I-5, AT MOSSDALE, 5 MILES WEST OF MANTECA.

Detailed Location: W POLYGON MAPPED TO SUSPECTED NEST FROM CDFW NEST RECORDS, 2003. E POLYGON INCL. 3 NEST SITES, FROM S: 1992 NEST W OF MOSSDALE MARINA, FROM FIELD SURVEY FORM; 2002 NEST JUST S OF RR TRACKS, FROM CDFW RECORDS; 2009 NEST FROM CDFW SHAPEFILE.

Ecological: 1992 NEST IN LARGE VALLEY OAK IN PRIVATE YARD. 2002 NEST IN 45' VALLEY OAK. 2003 SUSPECTED NEST IN 80' VALLEY OAK. 2009 NEST IN 60' VALLEY OAK. SURROUNDING HABITAT WAS RIPARIAN, ROW CROPS, GRASSLAND.

General: NESTING ADULTS OBSERVED RETRIEVING FOOD TO NEST, INCUBATING IN MAY 1993. NESTING ADULTS OBSERVED APR-JUN 2002, 1 FEATHERED CHICK SEEN IN NEST TREE ON 7 JUL. NESTING SUSPECTED BUT NOT CONFIRMED IN 2003. NEST WITH YOUNG OBS ON 25 JUN 2009.

Owner/Manager: PVT

Occurrence No.	588	**Map Index:**	23636	**EO Index:**	16755	**Element Last Seen:**	1991-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1991-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-05

Quad Summary: Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.85761 / -121.19627	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4191549 E658674	**Elevation (ft):**	35
PLSS:	T01S, R07E, Sec. 10, SW (M)	**Acres:**	0.0

Location: VICINITY OF LONE TREE CREEK, 0.7 MI NW OF THE INTERSECTION OF FRENCH CAMP ROAD & AUSTIN ROAD, 3 MILES NORTH OF MANTECA.

Detailed Location: TERRITORY SJ071 (PART- SEE ALSO EO#1631) FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE). MAPPED TO TRS GIVEN IN LIST OF SAN JOAQUIN COUNTY NESTS 1990-92. 2009 DETECTION IN VICINITY, NORTH OF FRENCH CAMP RD AT CASTLE RD.

Ecological: 1991 NEST TREE WAS AN OAK. 2009 SUSPECTED NEST IN VALLEY OAK.

General: 1 YOUNG FLEDGED IN 1991. HAWK PERCHED IN AREA ON 29 MAY 2009.

Owner/Manager: UNKNOWN

Occurrence No.	681	**Map Index:**	33403	**EO Index:**	22464	**Element Last Seen:**	2002-07-17
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-07-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-01

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.76339 / -121.34611	**Accuracy:**	specific area
UTM:	Zone-10 N4180851 E645677	**Elevation (ft):**	10
PLSS:	T02S, R06E, Sec. 18 (M)	**Acres:**	9.0

Location:	WEST SIDE OF BERRY AVENUE, 0.1 MILE SW OF THE INTERSECTION WITH CANAL BOULEVARD, 5 MILES NORTH OF TRACY.
Detailed Location:	1993 DETECTION AT TERRITORY "SJ" FROM CDFW DATABASE, AT "LEFT BANK TOM PAINE SLOUGH," EXACT LOCATION UNKNOWN. MAPPED TO1996 & 2000 LOCATIONS FROM FIELD SURVEY FORMS, AND 2002 LOCATION FROM CDFW NEST RECORDS.
Ecological:	1993 NEST IN VALLEY OAK (VO). 1996 NEST IN LARGE VO, 2ND IN ROW OF 3 SOUTH OF CANAL BLVD. 2000 NEST IN 40' VO, POSSIBLY IN SAME OR ADJACENT GROUP OF TREES. 2002 NEST IN 55' VO BEHIND HOUSE ON BERRY AVE. SURROUNDED BY ROW CROPS/FALLOW LAND.
General:	NESTING PAIR, INCUBATION OBSERVED ON 8 MAY 1993; 1 YOUNG FLEDGED BY 29 JUL. NEST & 2 ADULTS OBS ON 26 MAR 1996. NEST WITH 2 DOWNY YOUNG OBS ON 9 JUN 2000. NEST WITH 1 FEATHERED CHICK OBS ON 27 JUN 2002; 2 JUV PERCHED IN NEST TREE ON 17 JUL.
Owner/Manager:	UNKNOWN

Occurrence No.	697	**Map Index:**	38803	**EO Index:**	33810	**Element Last Seen:**	1998-04-14
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1998-04-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1998-05-18

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.79613 / -121.26609	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4184611 E652658	**Elevation (ft):**	25
PLSS:	T02S, R06E, Sec. 01, NW (M)	**Acres:**	0.0

Location:	SOUTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF MCKINLEY AVENUE, SOUTH OF LATHROP.
Detailed Location:	NEST IS LOCATED IN A WIND BREAK BETWEEN AN AGRICULTRUAL FIELD AND HOUSES.
Ecological:	NEST TREE IS A COTTONWOOD; SURROUNDED BY AGRICULTURAL FIELDS (ROW CROPS) AND ASSOCIATED RESIDENCES.
General:	2 ADULTS/NEST OBSERVED ON 14 APRIL 1998.
Owner/Manager:	UNKNOWN

Occurrence No.	937	**Map Index:**	45622	**EO Index:**	45622	**Element Last Seen:**	2015-03-16
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-03-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-07-05

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.80679 / -121.32461	**Accuracy:**	non-specific area
UTM:	Zone-10 N4185700 E647486	**Elevation (ft):**	15
PLSS:	T01S, R06E, Sec. 33, NW (M)	**Acres:**	23.0

Location:	SAN JOAQUIN RIVER, FROM ABOUT 0.2 MI UPSTREAM (SE) TO 0.3 MI DOWNSTREAM (NE) OF THE OLD RIVER CONFLUENCE, SW OF LATHROP.
Detailed Location:	MULTIPLE NEST SITES REPRESENTED. SOUTH POLYGON: NEST SITES IN 2000, 2001, & 2015. NORTH POLYGON: NESTS IN 2000, 2001, & 2002, ON NORTH AND SOUTH BANKS OF RIVER. FORMER OCCURRENCE #944 COMBINED HERE.
Ecological:	SOUTH: 2000 NEST IN COTTONWOOD, 2001 IN 35' TALL WILLOW, 2015 IN COTTONWOOD. NORTH: 2000 NEST IN BLACK WALNUT, 2001 IN COTTONWOOD, 2002 IN 50' VALLEY OAK. IN MATURE RIPARIAN FOREST SURROUNDED BY AGRICULTURE INCLUDING ALFALFA.
General:	SOUTH: NESTING PAIR & 1 YOUNG OBSERVED, 14 JUN 2000; PAIR & 2 YOUNG OBS, 21 JUN 2001 (YOUNG WERE BANDED); NESTING PAIR OBS 16 MAR 2015. NORTH: NESTING PAIR OBS IN 2000 (OUTCOME UNKNOWN); NEST FAILED IN 2001; PAIR & 2 YOUNG OBS IN 2002.
Owner/Manager:	UNKNOWN

Occurrence No.	997	**Map Index:**	47404	**EO Index:**	47404	**Element Last Seen:**	2001-05-16
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2001-05-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.81998 / -121.34469	**Accuracy:**	non-specific area
UTM:	Zone-10 N4187132 E645690	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 29, NW (M)	**Acres:**	34.0

Location:	EAST SIDE OF OLD RIVER, ABOUT 0.5 MILE NE OF PARADISE AVE AT COHEN RD & 2.9 MILES NW OF MOSSDALE.
Detailed Location:	1993 DETECTION AT TERRITORY "SJ" FROM CDFW DATABASE, AT "RIGHT BANK OLD RIVER," LOCATION APPROXIMATE. 2000-2001 NEST TREE ALSO ON E SIDE OF RIVER, ON THE LAND SIDE OF THE LEVEE.
Ecological:	1993 NEST IN VALLEY OAK. 2000-2001 NEST TREE WAS A LARGE OAK WITHIN A CLUSTER OF OAKS, WILLOWS, AND COTTONWOODS; SURROUNDED BY AGRICULTURAL FIELDS.
General:	NESTING PAIR, INCUBATION OBSERVED ON 20 APR 1993; 3 CHICKS HATCHED 10 JUN. PAIR OBSERVED NESTING ON 19 APR 2000. PAIR OBSERVED NESTING ON 16 MAY 2001; FEMALE ON NEST.
Owner/Manager:	UNKNOWN

Occurrence No.	1109	**Map Index:**	50998	**EO Index:**	50998	**Element Last Seen:**	1999-07-06
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	1999-07-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2003-04-16

Quad Summary:	Lathrop (3712173), Union Island (3712174)
County Summary:	San Joaquin

Lat/Long:	37.79152 / -121.37565	**Accuracy:**	80 meters
UTM:	Zone-10 N4183926 E643021	**Elevation (ft):**	10
PLSS:	T02S, R05E, Sec. 01 (M)	**Acres:**	0.0

Location:	WEST SIDE OF PARADISE ROAD, 0.3 MILE SOUTH OF DELTA AVENUE, NE OF TRACY.
Detailed Location:	
Ecological:	NEST TREE IS A LONE COTTONWOOD NEXT TO SOME HOUSES; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.
General:	NEST SITE ACTIVE IN 1997 AND 1998. 2 ADULTS AND 2 JUVENILES OBSERVED AT THE NEST SITE ON 6 JUL 1999.
Owner/Manager:	UNKNOWN

Occurrence No.	1110	**Map Index:**	51000	**EO Index:**	51000	**Element Last Seen:**	2015-07-08
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-07-08
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-07-05

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.80951 / -121.33396	**Accuracy:**	specific area
UTM:	Zone-10 N4185988 E646657	**Elevation (ft):**	12
PLSS:	T01S, R06E, Sec. 32 (M)	**Acres:**	10.0

Location:	EAST SIDE OF OLD RIVER, FROM ABOUT 0.4 - 0.75 MILES UPSTREAM FROM THE SAN JOAQUIN RIVER CONFLUENCE, NORTH OF TRACY.
Detailed Location:	NORTH POLYGON MAPPED TO 1998-2000 NEST SITE. SOUTH POLYGON MAPPED TO 2015 NEST SITE.
Ecological:	1998-2000: NEST TREE WAS AN OAK WITHIN REMNANT RIPARIAN ON A DISTURBED LEVEE SLOPE; SURROUNDING FORAGING HABITAT CONSISTED OF AGRICULTURE. 2015: NEST IN OAK IN 50M-WIDE STRIP OF OAK WOODLAND/GRASSLAND; CONSTRUCTION NEARBY.
General:	NEST SITE ACTIVE IN 1998 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 19 APR 2000. NESTING PAIR FLEDGED 1 YOUNG IN 2015.
Owner/Manager:	UNKNOWN, DWR

Occurrence No.	1111	**Map Index:**	51001	**EO Index:**	51001	**Element Last Seen:**	2000-05-03
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2000-05-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2003-04-16

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.82062 / -121.31955	**Accuracy:**	80 meters
UTM:	Zone-10 N4187243 E647903	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 28 (M)	**Acres:**	0.0

Location:	EAST SIDE OF SAN JOAQUIN RIVER, 0.25 MILE EAST OF THE SOUTH END OF UNDINE ROAD, NE OF TRACY.
Detailed Location:	
Ecological:	NEST TREE IS A LARGE OAK WITHIN WITHIN A LINE OF OAKS, JUST OFF THE LEVEE; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURE (MAINLY ROW CROPS AND ALFALFA).
General:	NEST SITE ACTIVE IN 1998 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 3 MAY 2000.
Owner/Manager:	UNKNOWN

Occurrence No.	1112	**Map Index:**	51002	**EO Index:**	51002	**Element Last Seen:**	2001-04-16
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2001-04-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2003-04-16

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.80762 / -121.35015	**Accuracy:**	80 meters
UTM:	Zone-10 N4185752 E645234	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 31 (M)	**Acres:**	0.0

Location:	STEWART ROAD, 0.4 MILE EAST OF PARADISE ROAD, NE OF TRACY.
Detailed Location:	
Ecological:	NEST TREE IS ONE OF TWO ROADSIDE OAKS; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.
General:	2 ADULTS OBSERVED DURING NEST-BUILDING ON 16 APR 2001.
Owner/Manager:	UNKNOWN

Occurrence No.	1113	**Map Index:**	51003	**EO Index:**	51003	**Element Last Seen:**	2001-04-27
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2001-04-27
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-30

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.86527 / -121.31653	**Accuracy:**	non-specific area
UTM:	Zone-10 N4192202 E648078	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 09 (M)	**Acres:**	75.0

Location:	SAN JOAQUIN RIVER AT BOWMAN ROAD, ABOUT 4.5 MILES SSW OF STOCKTON.
Detailed Location:	WEST POLYGON: MAPPED TO APPROXIMATE UTMS GIVEN FOR TERRITORY "SJ" (NO # ASSIGNED) FROM CDFW SWHA OBSERVATIONS DATABASE, AT "LEFT BANK SAN JOAQUIN RIVER." EAST POLYGON: MAPPED TO COORDINATES ON FIELD SURVEY FORM; ON BOWMAN "600M E OF RIVER."
Ecological:	1993 NEST IN WALNUT. 2001 NEST TREE WAS SURROUNDED BY RURAL AGRICULTURAL AREA WITH A FEW HOUSES, GOOD FORAGE CROPS.
General:	NESTING PAIR, INCUBATION OBSERVED ON 16 APR 1993; NEST ABANDONED AND TAKEN OVER BY GREAT HORNED OWLS BY 10 JUN. 2 ADULTS OBSERVED NESTING ON 27 APR 2001.
Owner/Manager:	UNKNOWN

Occurrence No.	1114	**Map Index:**	51005	**EO Index:**	51005	**Element Last Seen:**	2001-05-12
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2001-05-12
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2003-04-17

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.83343 / -121.36235	**Accuracy:**	80 meters
UTM:	Zone-10 N4188597 E644110	**Elevation (ft):**	
PLSS:	T01S, R06E, Sec. 19 (M)	**Acres:**	0.0

Location:	SOUTH SIDE OF UNDINE ROAD, 1.3 MILES WEST OF ROBERTS ROAD, NW OF TRACY.
Detailed Location:	NEST TREE LOCATED NEXT TO A FARM HOUSE.
Ecological:	NEST TREE IS A COTTONWOOD; SURROUNDING FORAGING HABITAT CONSISTS OF VINEYARDS, ORCHARDS, AND SOME GOOD FORAGE CROPS.
General:	ACTIVE NEST IN 2000. 2 ADULTS OBSERVED NESTING ON 12 MAY 2001.
Owner/Manager:	UNKNOWN

Occurrence No.	1190	**Map Index:**	51170	**EO Index:**	51170	**Element Last Seen:**	2000-06-15
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2000-06-15
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.83947 / -121.31698	**Accuracy:**	non-specific area
UTM:	Zone-10 N4189339 E648090	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 21, NE (M)	**Acres:**	22.0

Location:	SAN JOAQUIN RIVER FROM RM 50.2 TO RM 50, JUST NORTH OF DE LIMA ROAD, 5 MILES NW OF MANTECA.
Detailed Location:	SW POLYGON: 1993 DETECTION AT TERRITORY "SJ" (NO # ASSIGNED) FROM CDFW DATABASE, AT "LEFT BANK SAN JOAQUIN RIVER"; MAPPED TO GIVEN UTMS, WHICH APPEAR TO BE APPROXIMATE. NE POLYGON: 2000 NEST SITE FROM FIELD SURVEY FORM.
Ecological:	1993 NEST IN VALLEY OAK. 2000 NEST IN 70' TALL COTTONWOOD SURROUNDED BY CROPLAND.
General:	ACTIVE NEST OBSERVED IN 1993; CHICK HATCHED ON 10 JUN, ADULT AND 1 YOUNG OBSERVED ON 1 JUL. ADULT(S) OBSERVED AT THE NEST ON 15 JUN 2000.
Owner/Manager:	UNKNOWN

Occurrence No.	1198	**Map Index:**	51190	**EO Index:**	51190	**Element Last Seen:**	2000-06-20
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2000-06-20
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-30

Quad Summary:	Lathrop (3712173), Union Island (3712174)
County Summary:	San Joaquin

Lat/Long:	37.85878 / -121.37668	**Accuracy:**	80 meters
UTM:	Zone-10 N4191388 E642800	**Elevation (ft):**	5
PLSS:	T01S, R05E, Sec. 12, SW (M)	**Acres:**	0.0

Location:	WEST SIDE OF MIDDLE RIVER, 1.3 MILES SSE OF THE INTERSECTION OF HOWARD ROAD AND WING LEVEE ROAD, 7 MILES NORTH OF TRACY.
Detailed Location:	TERRITORY "SJ" (NO # ASSIGNED) FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE. MAPPED TO COORDINATES ON FIELD SURVEY FORM GIVEN FOR 2000 NEST, IN SAME OR ADJACENT TREE.
Ecological:	1993 NEST IN VALLEY OAK. 2000 NEST TREE WAS A 30' TALL VALLEY OAK; SURROUNDED BY RIPARIAN TO THE SOUTH AND ROW CROPS TO THE NORTH.
General:	2 ADULTS SEEN AT NEST ON 28 JUL 1993; NEST LATER ABANDONED DUE TO FIRE. ADULTS OBSERVED FEEDING 2 PARTIALLY-FEATHERED YOUNG IN THE NEST ON 20 JUN 2000.
Owner/Manager:	UNKNOWN

Occurrence No.	1221	**Map Index:**	51733	**EO Index:**	51733	**Element Last Seen:**	2003-05-01
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-05-01
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-11-16

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.80259 / -121.31233	**Accuracy:**	specific area
UTM:	Zone-10 N4185254 E648573	**Elevation (ft):**	15
PLSS:	T01S, R06E, Sec. 33 (M)	**Acres:**	17.0

Location:	EAST BANK OF OLD RIVER, 1.2 MILES SW OF THE INTERSECTION OF LOUISE AVENUE AND I-5, SW OF LATHROP.
Detailed Location:	NEST TREE WAS A 25' WILLOW IN 2000; NEST TREE WAS A 45' COTTONWOOD IN 2003.
Ecological:	NEST TREE WAS A COTTONWOOD; SURROUNDED BY RIPARIAN TO THE SE, AND ROW CROPS TO THE NE, NW, AND SW.
General:	NEST WITH 2 FEATHERED YOUNG OBSERVED ON 7 JUL 2000. 1 ADULT OBSERVED SITTING IN THE NEST ON 1 MAY 2003.
Owner/Manager:	UNKNOWN

Occurrence No.	1587	**Map Index:**	63290	**EO Index:**	63382	**Element Last Seen:**	2002-07-18
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-07-18
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2005-12-01

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.86883 / -121.27610	**Accuracy:**	80 meters
UTM:	Zone-10 N4192662 E651627	**Elevation (ft):**	22
PLSS:	T01S, R06E, Sec. 11, NE (M)	**Acres:**	0.0

Location:	BETWEEN SOUTH HARLAN ROAD AND SOUTH MCKINLEY ROAD, 1 MILE SOUTH OF FRENCH CAMP, SW OF STOCKTON AIRPORT.
Detailed Location:	NEST TREE LOCATED NEXT TO HOUSE, ON THE WEST SIDE OF THE RAILROAD TRACKS AND EAST OF I-5.
Ecological:	NEST TREE WAS A LARGE WILLOW; SURROUNDED BY GRASSLANDS TO THE NE AND SW, RESIDENTIAL/URBAN TO THE SE, AND COMMERCIAL/HIGHWAY TO THE NW.
General:	NEST AND COPULATING ADULTS OBSERVED ON 19 APR; 1 ADULT IN NEST ON 24 MAY, BUT NO YOUNG VISIBLE; 2 CHICKS OBSERVED IN THE NEST ON 9 JUN; 2 JUVENILES AND 1 ADULT OBSERVED ON 18 JUL 2002.
Owner/Manager:	UNKNOWN

Occurrence No.	1607	**Map Index:**	63869	**EO Index:**	63964	**Element Last Seen:**	2002-06-10
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-06-10
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-02-02

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.76484 / -121.33187	**Accuracy:**	80 meters
UTM:	Zone-10 N4181034 E646928	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 17 (M)	**Acres:**	0.0

Location:	NORTH SIDE OF TOM PAINE SLOUGH, JUST SOUTH OF THE JUNCTION OF I-5 AND I-205, SW OF MANTECA.
Detailed Location:	
Ecological:	NEST TREE WAS A COTTONWOOD; SURROUNDED BY GRASSLAND TO THE NE, SE, AND SW, AND ROW CROPS TO THE NW.
General:	1 ADULT OBSERVED AT THE NEST ON 30 MAY; 1 DOWNY CHICK OBSERVED IN THE NEST WITH 1 ADULT AT THE NEST EDGE ON 10 JUN 2002.
Owner/Manager:	UNKNOWN

Occurrence No.	1608	**Map Index:**	63875	**EO Index:**	63970	**Element Last Seen:**	2003-05-01
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-05-01
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-11-16

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.79298 / -121.30698	**Accuracy:**	specific area
UTM:	Zone-10 N4184196 E649064	**Elevation (ft):**	17
PLSS:	T02S, R06E, Sec. 03 (M)	**Acres:**	13.0

Location:	ALONG THE SAN JOAQUIN RIVER, 0.4 MILE NORTH OF THE I-5 CROSSING OF THE SAN JOAQUIN RIVER, 4 MILES WEST OF MANTECA.
Detailed Location:	NEST TREE (VALLEY OAK) ON THE EAST BANK USED IN 2002; NEST TREE (COTTONWOOD) ON THE WEST BANK USED IN 2003.
Ecological:	NEST TREE WAS A COTTONWOOD; SURROUNDED BY RIPARIAN TO THE NE AND SE, AND ROW CROPS TO THE NW AND SW.
General:	ACTIVE NEST OBSERVED ON 30 MAY; 2 PARTIALLY-FEATHERED CHICKS OBSERVED IN THE NEST ON 10 JUN; ONLY 1 JUVENILE REMAINED IN THE NEST BY 7 JUL 2002. ADULT OBSERVED IN THE NEST ON 1 MAY 2003.
Owner/Manager:	UNKNOWN

Occurrence No.	1623	**Map Index:**	64668	**EO Index:**	64747	**Element Last Seen:**	2002-06-23
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-07-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-05-11

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.76445 / -121.36142	**Accuracy:**	80 meters
UTM:	Zone-10 N4180945 E644326	**Elevation (ft):**	32
PLSS:	T02S, R06E, Sec. 18, NW (M)	**Acres:**	0.0

Location:	SOUTH SIDE OF I-205, 0.1 MILE WEST OF WHERE CALIFORNIA AVENUE CROSSES I-205, 3 MILES NE OF TRACY.
Detailed Location:	
Ecological:	NEST TREE WAS A EUCALYPTUS; SURROUNDED BY FALLOW FIELDS TO THE NE, ROW CROPS TO THE SE AND SW, AND ROADWAYS/COMMERCIAL TO THE NW.
General:	ADULTS OBSERVED SOARING AND LANDING ON 20 APR; 2 DOWNY HEADS VISIBLE IN NEST ON 3 JUN; 1 ADULT AND 1 JUVENILE OBSERVED AT NEST ON 27 JUN; NO HAWKS PRESENT ON 17 JUL 2002.
Owner/Manager:	UNKNOWN

Occurrence No.	1631	**Map Index:**	64689	**EO Index:**	64768	**Element Last Seen:**	2002-07-18
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-07-18
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-05

Quad Summary:	Manteca (3712172)
County Summary:	San Joaquin

Lat/Long:	37.85564 / -121.18569	**Accuracy:**	80 meters
UTM:	Zone-10 N4191350 E659609	**Elevation (ft):**	40
PLSS:	T01S, R07E, Sec. 10, SE (M)	**Acres:**	0.0

Location:	ALONG AUSTIN ROAD, ON THE SOUTH SIDE OF THE AUSTIN CREEK CROSSING, ABOUT 8 MILES SE OF STOCKTON.
Detailed Location:	VICINITY OF 1994 DETECTION AT TERRITORY SJ071 (PART - SEE ALSO EO#588) FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE, "0.75 MI N OF SUMMER HOME E OF AUSTIN RD." MAPPED TO 2002 LOCATION FROM CDFW NEST RECORDS.
Ecological:	1994 DETECTION AT FARMSTEAD SURROUNDED BY AGRICULTURAL FIELDS. 2002 NEST TREE WAS A VALLEY OAK; SURROUNDED BY ROW CROPS TO THE EAST, ORCHARD/VINEYARD TO THE NW, AND FALLOW LAND TO THE SW.
General:	1 TERRITORIAL/DEFENSIVE ADULT OBSERVED IN 1994; SURVEYOR WAS UNABLE TO LOCATE NEST TREE. ACTIVE NEST OBSERVED ON 6 JUN 2002, WHEN 1 ADULT WAS INCUBATING, AND 18 JUL 2002, WHEN 2 FEATHERED JUVENILES WERE SEEN IN THE NEST.
Owner/Manager:	UNKNOWN

Occurrence No.	1655	**Map Index:**	65612	**EO Index:**	65691	**Element Last Seen:**	2003-06-13
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-06-13
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-08-03

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.79900 / -121.27834	**Accuracy:**	80 meters
UTM:	Zone-10 N4184910 E651574	**Elevation (ft):**	20
PLSS:	T01S, R06E, Sec. 35, SE (M)	**Acres:**	0.0

Location:	ALONG HOWLAND ROAD, 0.5 MILE WNW OF THE INTERSECTION OF MCKINLEY AVENUE AND YOSEMITE AVENUE, SOUTH LATHROP.
Detailed Location:	
Ecological:	NEST TREE WAS A COTTONWOOD; SURROUNDED BY FALLOW AG FIELDS TO THE NW AND ROW CROPS TO THE NE, SE, AND SW.
General:	ADULTS OBSERVED BRINGING PREY ITEMS TO THE NEST ON 3 OCCASIONS ON 12-13 JUN 2003, BUT NO CHICKS WERE SEEN; NEST IS NOT VISIBLE.
Owner/Manager:	UNKNOWN

Occurrence No.	1668	**Map Index:**	67096	**EO Index:**	67246	**Element Last Seen:**	2009-07-13
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-07-13
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-01

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.76757 / -121.29212	**Accuracy:**	specific area
UTM:	Zone-10 N4181400 E650424	**Elevation (ft):**	12
PLSS:	T02S, R06E, Sec. 15, NW (M)	**Acres:**	12.0

Location:	EAST BANK OF WALTHALL SLOUGH, ABOUT 0.5 MILE SSE OF APLICELLA CT AT S WOODWARD AVE, 4.5 MILES SW OF MANTECA.
Detailed Location:	2003 NEST SITE FROM CDFW NEST RECORDS, AT NW END OF FEATURE. 2009 SITE FROM CDFW SHAPEFILE, AT SE END OF FEATURE.
Ecological:	2003 NEST TREE WAS A WILLOW; SURROUNDED RIPARIAN TO THE NW AND SW, ROW CROPS TO THE SE, AND RESIDENTIAL TO THE NE. 2009 NEST TREE WAS A 35' VALLEY OAK; RESIDENTIAL TO NORTH, GRAZING LAND AND CROPS TO SOUTH.
General:	2 ADULTS OBSERVED DIVING ON ONE ANOTHER, WHILE A THIRD ADULT WAS SITTING IN THE NEST ON 1 MAY 2003. NEST WITH YOUNG OBSERVED ON 13 JUL 2009.
Owner/Manager:	UNKNOWN

Occurrence No.	1682	**Map Index:**	69179	**EO Index:**	69957	**Element Last Seen:**	2004-05-11
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-05-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-01

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.82747 / -121.31120	**Accuracy:**	non-specific area
UTM:	Zone-10 N4188016 E648623	**Elevation (ft):**	12
PLSS:	T01S, R06E, Sec. 21, SE (M)	**Acres:**	34.0

Location: WEST SIDE OF THE SAN JOAQUIN RIVER AROUND RM51, JUST SOUTH OF THE E END OF DOS REIS RD, WEST OF LATHROP.

Detailed Location: 4 NEST SITES REPRESENTED. SOUTHMOST 2 SITES DETECTED IN 1993 AT TERRITORY "SJ" FROM CDFW DATABASE, LOCATION APPROXIMATE. NORTHMOST 2 SITES DETECTED IN 2004, LOCATIONS FROM FIELD SURVEY FORM.

Ecological: 1993 NESTS IN COTTONWOOD (S) & VALLEY OAK (N). 2004 NESTS IN LARGE VALLEY OAKS ABOUT 0.2 MI APART. HABITAT WAS NARROW RIPARIAN CORRIDOR SOUTHWEST OF COUNTY PARK, WITH AGRICULTURAL FIELDS TO W, RESIDENTIAL DEVELOPMENT TO E (2004).

General: 2 ACTIVE NESTS MONITORED IN 1993; 1 YOUNG HATCHED FROM COTTONWOOD SITE AND 2 YOUNG (1 BANDED) HATCHED FROM VALLEY OAK SITE. 2 NESTING PAIRS OBSERVED ON 11 MAY 2004.

Owner/Manager: PVT

Occurrence No.	2387	**Map Index:**	89794	**EO Index:**	90802	**Element Last Seen:**	1993-08-06
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1993-08-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-30

Quad Summary: Lathrop (3712173), Union Island (3712174)

County Summary: San Joaquin

Lat/Long:	37.79917 / -121.36725	**Accuracy:**	non-specific area
UTM:	Zone-10 N4184789 E643745	**Elevation (ft):**	5
PLSS:	T01S, R05E, Sec. 36 (M)	**Acres:**	286.0

Location: PARADISE CUT, ABOUT 0.6 MILE W OF THE PARADISE ROAD BRIDGE.

Detailed Location: VICINITY OF TERRITORIES"SJ" (NO # ASSIGNED) & SJ059 FROM CDFW SWHA OBSERVATIONS DATABASE, ALONG PARADISE CUT. EXACT LOCATIONS UNKNOWN; SJ059 DETECTIONS IN SE 1/4 SEC 36. APPROXIMATE UTMS GIVEN FOR "SJ" SOUTH OF CUT IN SE 1/4 SEC 35.

Ecological: 1983 NEST IN COTTONWOOD (SJ059). 2 NESTS IN 1993, IN VALLEY OAK ("SJ") AND COTTONWOOD (SJ059). SURROUNDING HABITAT RIPARIAN, AGRICULTURAL (WHEAT/BARLEY) IN 1983.

General: 1 ADULT SITTING ON NEST OBSERVED 23 APR 1983. NESTING PAIR, INCUBATION OBSERVED AT SJ059 ON 27 APR 1993; NEST ABANDONED BY 15 JUN. PAIR WITH 2 YOUNG OBSERVED AT NEST "SJ" ON 6 AUG 1993.

Owner/Manager: UNKNOWN

Occurrence No.	2389	**Map Index:**	89804	**EO Index:**	90809	**Element Last Seen:**	2011-05-30
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2011-05-30
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-26

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.84075 / -121.28600	**Accuracy:**	80 meters
UTM:	Zone-10 N4189530 E650814	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 23, NW (M)	**Acres:**	0.0

Location:	MEDIAN STRIP BETWEEN MANTHEY RD AND I-5 S, ABOUT 0.3 MI S OF THE KLO RD JUNCTION AND 1 MI N OF THE LATHROP RD UNDERPASS.
Detailed Location:	MAPPED TO COORDINATES PROVIDED ON FIELD SURVEY FORM.
Ecological:	NEST TREE IN MEDIAN STRIP; MARGINAL HABITAT IMMEDIATELY SURROUNDING NEST, BUT AGRICULTURAL LAND TO WEST MAY HAVE PROVIDED GOOD FORAGING HABITAT. LACK OF NEST TREES IN SURROUNDING AREA MAY LIMIT LOCAL SWAINSON'S HAWK POPULATION.
General:	ADULT FLYING NEAR NEST TREE OBSERVED 7 MAY 2011, ADULT SITTING ON NEST OBSERVED ON 30 MAY.
Owner/Manager:	UNKNOWN

Occurrence No.	2390	**Map Index:**	89806	**EO Index:**	90815	**Element Last Seen:**	2008-03-27
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2008-03-27
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-29

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.78858 / -121.35804	**Accuracy:**	non-specific area
UTM:	Zone-10 N4183628 E644576	**Elevation (ft):**	10
PLSS:	T02S, R06E, Sec. 06 (M)	**Acres:**	87.0

Location:	PARADISE CUT, FROM ABOUT 1 TO 1.2 MILES SE OF THE PARADISE AVE BRIDGE CROSSING, 2 MILES NW OF THE I-5/I-205 JUNCTION.
Detailed Location:	EAST POLYGON: 1993 DETECTION AT TERRITORY "SJ" (NO # ASSIGNED), AT "ISLAND [IN] PARADISE CUT;" UTMS GIVEN ARE APPROXIMATE. WEST POLYGON: COORDINATES GIVEN FOR 2008 DETECTION MAY BE FOR OBSERVATION POINT, NOT NEST LOCATION.
Ecological:	1993 NEST IN VALLEY OAK. 2008 NEST IN NARROW BAND OF MATURE GREAT VALLEY RIPARIAN ALONG LEVEE; OVERSTORY TREES PRIMARILY COTTONWOOD, VALLEY OAK AND BOX ELDER.
General:	NESTING PAIR OBSERVED ON 27 APR 1993; UNKNOWN IF CHICKS WERE PRODUCED. NESTING PAIR OBSERVED ON 27 MAR 2008, OUTCOME UNKNOWN.
Owner/Manager:	DWR

Occurrence No.	2391	**Map Index:**	89807	**EO Index:**	90816	**Element Last Seen:**	2009-04-04
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-04-04
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-30

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.81117 / -121.28953	**Accuracy:**	80 meters
UTM:	Zone-10 N4186243 E650563	**Elevation (ft):**	15
PLSS:	T01S, R06E, Sec. 35, NW (M)	**Acres:**	0.0

Location: SOUTH SIDE OF E LOUISE AVE, ABOUT 0.1 MILE ESE OF THE S HARLAN RD INTERSECTION IN LATHROP.

Detailed Location: ON GROUNDS OF PROPERTY AT 500 E LOUISE AVE. MAPPED TO COORDINATES GIVEN IN CDFW SHAPEFILE OF NESTS RECORDED IN 2009. NOTES INDICATE THAT NEST TREE WAS VIEWED FROM MCDONALD'S AT 300 E LOUISE AVE.

Ecological: NEST TREE CODED AS "OTHER EXOTIC," IN COMMERCIAL SURROUNDINGS.

General: INCUBATION AND TERRITORIAL BEHAVIOR OBSERVED ON 4 APR 2009.

Owner/Manager: PVT

Occurrence No.	2392	**Map Index:**	89813	**EO Index:**	90821	**Element Last Seen:**	1993-07-04
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1993-07-04
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.84410 / -121.32218	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4189845 E647624	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 16, SW (M)	**Acres:**	0.0

Location: SAN JOAQUIN RIVER AT RM 49.5, ABOUT 1.2 MILES SE OF CARLIN RD AT S ROBERTS RD, 2.5 MILES NW OF LATHROP.

Detailed Location: MAPPED TO UTMS GIVEN FOR 1993 DETECTION AT TERRITORY "SJ" (NO # ASSIGNED) FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE, AT "LEFT BANK SAN JOAQUIN RIVER." UTMS APPEAR TO BE APPROXIMATE.

Ecological: NEST IN COTTONWOOD.

General: ACTIVE NEST MONITORED IN 1993; 1 CHICK HATCHED ON 4 JUL.

Owner/Manager: UNKNOWN

Occurrence No.	2393	**Map Index:**	89814	**EO Index:**	90822	**Element Last Seen:**	1993-07-03
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1993-07-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.85106 / -121.32339	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4190615 E647504	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 16, NW (M)	**Acres:**	0.0

Location: SAN JOAQUIN RIVER AT RM 49, ABOUT 0.8 MILE ESE OF CARLIN RD AT S ROBERTS RD, 2.8 MILES NW OF LATHROP.

Detailed Location: MAPPED TO UTMS GIVEN FOR 1993 DETECTION AT TERRITORY "SJ" (NO # ASSIGNED) FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE, AT "LEFT BANK SAN JOAQUIN RIVER." UTMS APPEAR TO BE APPROXIMATE.

Ecological: NEST IN VALLEY OAK.

General: ACTIVE NEST, INCUBATION OBSERVED ON 10 JUN; 2 CHICKS PRESENT, BANDED ON 3 JUL 1993.

Owner/Manager: UNKNOWN

Occurrence No.	2394	**Map Index:**	89821	**EO Index:**	90824	**Element Last Seen:**	2009-04-28
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-04-28
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.79960 / -121.30034	**Accuracy:**	80 meters
UTM:	Zone-10 N4184941 E649635	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 34, S (M)	**Acres:**	0.0

Location:	WEST SIDE OF I-5, IN VICINITY OF BROOKHURST BLVD AT MANTHEY RD, LATHROP.
Detailed Location:	MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.
Ecological:	NEST IN 25' COTTONWOOD WITH FREEWAY TO THE EAST AND GRASSLAND/RESIDENTIAL TO THE WEST.
General:	SURVEYOR NOTED PRESENCE OF YOUNG AND FORAGING ADULT(S) ON 28 APR 2009.
Owner/Manager:	UNKNOWN

Occurrence No.	2395	**Map Index:**	89818	**EO Index:**	90827	**Element Last Seen:**	2009-06-11
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.79598 / -121.31320	**Accuracy:**	80 meters
UTM:	Zone-10 N4184519 E648510	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 04, NE (M)	**Acres:**	0.0

Location:	EAST SIDE OF THE SAN JOAQUIN RIVER AT RM 55.1, ABOUT 0.2 MILE SW OF INLAND PASSAGE WAY AT STRAWBERRY GLEN ST, LATHROP.
Detailed Location:	VICINITY OF 1994 DETECTION AT TERRITORY "SJ" (NO # ASSIGNED) FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE, EXACT LOCATION UNKNOWN. MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.
Ecological:	2009 NEST IN 35' COTTONWOOD WITH RIPARIAN HABITAT TO THE EAST AND FALLOW/RUDERAL LAND TO THE WEST. SINCE THE 1994 DETECTION, THE AREA IMMEDIATELY NE HAS BEEN CONVERTED TO HOUSING DEVELOPMENT.
General:	NESTING PAIR OBSERVED IN 1994. NEST WITH YOUNG OBSERVED ON 11 JUL 2009.
Owner/Manager:	UNKNOWN

Occurrence No.	2396	**Map Index:**	89822	**EO Index:**	90832	**Element Last Seen:**	2009-06-11
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.78389 / -121.32269	**Accuracy:**	80 meters
UTM:	Zone-10 N4183162 E647699	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 04, SW (M)	**Acres:**	0.0

Location:	ALONG RR TRACKS ABOUT 0.4 MILE S OF W STEWART RD AT COHEN RD & 1.3 MILES WSW OF THE I-5/HWY 120 SPLIT SW OF LATHROP.
Detailed Location:	MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.
Ecological:	NEST IN 25' VALLEY OAK WITH ALFALFA TO THE EAST AND FALLOW/RUDERAL LAND TO THE WEST.
General:	NEST WITH YOUNG OBSERVED ON 11 JUN 2009.
Owner/Manager:	UNKNOWN

Occurrence No.	2397	**Map Index:**	89824	**EO Index:**	90833	**Element Last Seen:**	2009-06-11
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.77425 / -121.33078	**Accuracy:**	80 meters
UTM:	Zone-10 N4182080 E647005	**Elevation (ft):**	10
PLSS:	T02S, R06E, Sec. 08, SE (M)	**Acres:**	0.0

Location:	ALONG PARADISE CUT, ABOUT 0.3 MILE NW OF THE I-5 CROSSING, 1.4 MILES SW OF MOSSDALE.
Detailed Location:	VICINITY OF 1994 DETECTION AT TERRITORY "SJ" FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE, EXACT LOCATION UNKNOWN. MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.
Ecological:	2009 NEST IN 40' COTTONWOOD WITH CROPS TO THE EAST AND FALLOW LAND TO THE WEST.
General:	NESTING PAIR OBSERVED IN VICINITY IN 1994. NEST WITH YOUNG OBSERVED ON 11 JUN 2009.
Owner/Manager:	UNKNOWN

Occurrence No.	2398	**Map Index:**	57409	**EO Index:**	90834	**Element Last Seen:**	1994-05-06
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1994-05-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.76414 / -121.31826	**Accuracy:**	specific area
UTM:	Zone-10 N4180978 E648128	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 16 (M)	**Acres:**	103.8

Location:	PARADISE CUT, BETWEEN PARADISE DAM ON THE SAN JOAQUIN RIVER AND THE I-5 CROSSING, SW OF LATHROP.
Detailed Location:	TERRITORY SJ094 FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE, MAPPED TO VICINITY OF UTMS GIVEN FOR NEST SITES (LOCATIONS APPROXIMATE).
Ecological:	NEST TREES WERE COTTONWOODS IN REMNANT RIPARIAN HABITAT ALONG PARADISE CUT.
General:	NESTING PAIR OBSERVED 2 MAY 1993, INCUBATING UNKNOWN NUMBER OF CHICKS. NEST WITH 2 ADULTS OBSERVED ON 6 MAY 1994.
Owner/Manager:	UNKNOWN

Occurrence No.	2399	**Map Index:**	89826	**EO Index:**	90835	**Element Last Seen:**	2009-06-30
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-30
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.76618 / -121.30804	**Accuracy:**	80 meters
UTM:	Zone-10 N4181221 E649024	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 15, NW (M)	**Acres:**	0.0

Location: ALONG THE SAN JOAQUIN RIVER, RM 59.4, ABOUT 0.4 MILE NORTH OF PARADISE DAM AND 1.4 MILES SOUTH OF THE I-5 BRIDGE.

Detailed Location: MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.

Ecological: NEST IN 40' WILLOW SURROUNDED BY RIPARIAN HABITAT AND CROPLAND.

General: NEST WITH YOUNG OBSERVED ON 30 JUN 2009.

Owner/Manager: UNKNOWN

Occurrence No.	2400	**Map Index:**	89827	**EO Index:**	90838	**Element Last Seen:**	1993-04-20
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1993-04-20
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-07-31

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.76158 / -121.29884	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4180725 E649844	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 15 (M)	**Acres:**	0.0

Location: OXBOW ON THE EAST SIDE OF THE SAN JOAQUIN RIVER, ABOUT 0.6 MILE EAST OF PARADISE DAM AND 1.7 MILES SSE OF MOSSDALE.

Detailed Location: MAPPED TO VICINITY OF UTMS GIVEN FOR 1993 DETECTION AT TERRITORY "SJ" (NO # ASSIGNED) FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE. EXACT LOCATION UNKNOWN.

Ecological: NEST IN COTTONWOOD ALONG OXBOW OF RIVER.

General: NESTING PAIR, INCUBATION OBSERVED ON 20 APR 1993; NUMBER OF CHICKS/NESTING OUTCOME UNKNOWN.

Owner/Manager: UNKNOWN

Occurrence No.	2402	**Map Index:**	89834	**EO Index:**	90843	**Element Last Seen:**	2009-07-03
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-07-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-27

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.77254 / -121.29093	**Accuracy:**	80 meters
UTM:	Zone-10 N4181953 E650519	**Elevation (ft):**	20
PLSS:	T02S, R06E, Sec. 10, SE (M)	**Acres:**	0.0

Location: E SIDE WEATHERBEE LAKE, ABOUT 0.1 MILE SW OF APLICELLA CT AT S WOODWARD AVE, 1.3 MILES SE OF MOSSDALE.

Detailed Location: MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.

Ecological: NEST TREE WAS A 45' VALLEY OAK. AIR PHOTOS INDICATE THAT THE NEST TREE WAS CUT DOWN IN 2009-2010 AND THE AREA GRADED FOR DEVELOPMENT.

General: NEST WITH YOUNG OBSERVED ON 3 JUL 2009.

Owner/Manager: PVT

Occurrence No.	2403	**Map Index:**	89842	**EO Index:**	90852	**Element Last Seen:**	2011-07-27
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2011-07-27
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-27

Quad Summary:	Manteca (3712172)
County Summary:	San Joaquin

Lat/Long:	37.83083 / -121.21610	**Accuracy:**	80 meters
UTM:	Zone-10 N4188545 E656986	**Elevation (ft):**	35
PLSS:	T01S, R07E, Sec. 21, SW (M)	**Acres:**	0.0

Location:	NORTHEAST CORNER OF APACHE DRIVE AND NAVAJO WAY, ABOUT 0.3 MILE NNE OF SR 99 AT LATHROP ROAD, NORTH OF MANTECA.
Detailed Location:	MAPPED TO COORDINATES GIVEN ON FIELD SURVEY FORM.
Ecological:	NEST IN DEODAR CEDAR IN FRONT YARD OF RESIDENCE AT NORTHEAST CORNER OF INTERSECTION. ADULTS OBSERVED FORAGING IN STRAWBERRY FIELDS IMMEDIATELY SOUTH OF DEVELOPMENT (N SIDE LATHROP ROAD). SURROUNDING HABITAT AGRICULTURAL, RESIDENTIAL.
General:	NEST MONITORED APR-JUL 2011; ADULTS FREQUENTLY FORAGED IN THE STRAWBERRY FIELDS. 2 YOUNG FLEDGED BY 27 JUL 2011.
Owner/Manager:	PVT

Occurrence No.	2404	**Map Index:**	89845	**EO Index:**	90853	**Element Last Seen:**	2012-04-06
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-04-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-27

Quad Summary:	Manteca (3712172)
County Summary:	San Joaquin

Lat/Long:	37.81913 / -121.21680	**Accuracy:**	specific area
UTM:	Zone-10 N4187245 E656950	**Elevation (ft):**	35
PLSS:	T01S, R07E, Sec. 28, NW (M)	**Acres:**	16.0

Location:	NORTH MAIN STREET/SR 99 INTERCHANGE IN MANTECA.
Detailed Location:	3 NEST SITES REPRESENTED. 2009 SITE IS E-MOST OF 4 TREES IN PARCEL JUST S OF INTERCHANGE, FROM CDFW SHAPEFILE. 2011 SITE AT W-MOST TREE IN PARCEL, JUST E OF MAIN STREET, 2012 NEST TREE IN MEDIAN WITHIN INTERCHANGE; FROM FIELD SURVEY FORMS.
Ecological:	NEST TREES WERE EUCALYPTUS. HABITAT WAS FALLOW FIELDS, SURROUNDED BY FREEWAY, COMMERCIAL AND RESIDENTIAL LAND USE.
General:	SUSPECTED NEST DOCUMENTED IN 2009. COPULATION, NEST-BUILDING OBSERVED IN APR 2011; NEST WAS DESTROYED BY JUL 13 BUT PAIR REMAINED IN AREA. PAIR OBSERVED COPULATING, NEST-BUILDING, FLYING TO & FROM THE NEST IN APR 2012; EGGS SUSPECTED.
Owner/Manager:	PVT

Occurrence No.	2405	**Map Index:**	89846	**EO Index:**	90857	**Element Last Seen:**	2011-07-27
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2011-07-27
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-27

Quad Summary: Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.80667 / -121.19833	**Accuracy:**	80 meters
UTM:	Zone-10 N4185894 E658602	**Elevation (ft):**	40
PLSS:	T01S, R07E, Sec. 34, NW (M)	**Acres:**	0.0

Location: SOUTHWEST CORNER OF COTTAGE AVENUE OVERPASS AT SR 99 IN MANTECA.

Detailed Location: MAPPED TO COORDINATES GIVEN ON FIELD SURVEY FORM.

Ecological: NEST IN EUCALYPTUS PARTIALLY OVERHANGING THE HIGHWAY. AT NORTHERN APEX OF A SMALL TRIANGULAR PARCEL OF OPEN SPACE, COMPLETELY SURROUNDED BY SUBURBAN DEVELOPMENT. ADULTS OBSERVED FORAGING IN PARCEL & IN FIELD NORTH OF COTTAGE AVE/LOUISE AVE.

General: NESTING PAIR MONITORED APR-JUL 2011; AT LEAST 1 JUVENILE SUCCESSFULLY FLEDGED.

Owner/Manager: PVT

Occurrence No.	2406	**Map Index:**	89849	**EO Index:**	90858	**Element Last Seen:**	2009-06-30
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-30
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-01

Quad Summary: Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.81210 / -121.14355	**Accuracy:**	80 meters
UTM:	Zone-10 N4186591 E663413	**Elevation (ft):**	55
PLSS:	T01S, R08E, Sec. 31, NW (M)	**Acres:**	0.0

Location: SOUTHEAST CORNER OF JACK TONE ROAD AND LOUISE AVENUE, ABOUT 3 MILES EAST OF MANTECA.

Detailed Location: MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.

Ecological: NEST IN 50' TREE CODED AS PINE (LOOKS LIKE DEODAR CEDAR IN GOOGLE STREET VIEW) SURROUNDED BY ORCHARD WITH CROPLAND TO THE NW.

General: NEST WITH YOUNG OBSERVED ON 30 JUN 2009.

Owner/Manager: UNKNOWN

Occurrence No.	2407	**Map Index:**	89851	**EO Index:**	90860	**Element Last Seen:**	2009-06-19
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-01

Quad Summary: Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.83918 / -121.16770	**Accuracy:**	80 meters
UTM:	Zone-10 N4189553 E661228	**Elevation (ft):**	45
PLSS:	T01S, R07E, Sec. 23, NE (M)	**Acres:**	0.0

Location: SOUTHWEST CORNER OF FRENCH CAMP ROAD AT PRESCOTT ROAD, ABOUT 2.5 MILES NE OF MANTECA.

Detailed Location: MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST SITES RECORDED IN 2009.

Ecological: NEST IN 45' TREE CODED AS "OTHER EXOTIC," WITH ALFALFA TO THE NORTHEAST, ORCHARD SOUTH AND CROPS TO THE NORTHWEST.

General: NEST WITH YOUNG OBSERVED ON 19 JUN 2009.

Owner/Manager: UNKNOWN

Occurrence No.	2408	**Map Index:**	89853	**EO Index:**	90862	**Element Last Seen:**	2012-04-06
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-04-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-27

Quad Summary:	Manteca (3712172)
County Summary:	San Joaquin

Lat/Long:	37.86417 / -121.22388	**Accuracy:**	80 meters
UTM:	Zone-10 N4192231 E656231	**Elevation (ft):**	25
PLSS:	T01S, R07E, Sec. 08, NE (M)	**Acres:**	0.0

Location:	PARK VIEW CEMETERY, ON E FRENCH CAMP RD ABOUT 0.3 MILE EAST OF THE SR 99 INTERCHANGE.
Detailed Location:	MAPPED TO COORDINATES GIVEN ON 2011 AND 2012 FIELD SURVEY FORMS.
Ecological:	NEST TREE WAS A CEDAR, THE TALLEST TREE IN THE CEMETERY. SEVERAL OTHER CEMETERY TREES USED FOR PERCHING. SURROUNDED BY PRIME FORAGING HABITAT, INCLUDING AGRICULTURAL FIELDS AND GOLF COURSE. HAWKS OBSERVED FORAGING & FEEDING IN GOLF COURSE.
General:	LOCALS SUGGESTED NESTING IN AREA FOR SERVERAL PREVIOUS YEARS. 1 ADULT AND 4 JUVENILES OBSERVED PERCHING NEAR THE NEST TREE IN JUL 2011. NESTING PAIR OBSERVED FOR 2 WEEKS IN APR 2012; FEMALE BELIEVED TO HAVE LAID EGGS IN EARLY APR.
Owner/Manager:	PVT

Occurrence No.	2409	**Map Index:**	89855	**EO Index:**	90864	**Element Last Seen:**	2012-04-06
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-04-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-01

Quad Summary:	Manteca (3712172)
County Summary:	San Joaquin

Lat/Long:	37.86528 / -121.20999	**Accuracy:**	80 meters
UTM:	Zone-10 N4192378 E657451	**Elevation (ft):**	30
PLSS:	T01S, R07E, Sec. 09, N (M)	**Acres:**	0.0

Location:	ABOUT 0.6 MILE NE OF SR 99 AT E FRENCH CAMP RD AND 1.5 MILES NW OF LONE TREE CREEK AT AUSTIN RD, NORTH OF MANTECA.
Detailed Location:	MAPPED TO COORDINATES GIVEN ON 2012 FIELD SURVEY FORM.
Ecological:	NEST IN VALLEY OAK ON THE PERIMETER OF AN AGRICULTUAL FIELD. BIRDS OBSERVED FORAGING IN SURROUNDING FIELDS. SURVEYORS NOTED HIGH DISTURBANCE LEVEL FROM AGRICULTURAL OPERATIONS.
General:	NESTING PAIR MONITORED OVER A FOUR WEEK PERIOD, FEMALE BELIEVED TO HAVE LAID EGGS IN EARLY APRIL.
Owner/Manager:	PVT

Occurrence No.	2414	**Map Index:**	89892	**EO Index:**	90908	**Element Last Seen:**	1988-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1988-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2013-08-05

Quad Summary: Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.83630 / -121.14021	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4189282 E663653	**Elevation (ft):**	50
PLSS:	T01S, R08E, Sec. 19, NW (M)	**Acres:**	0.0

Location: ALONG LONE TREE CREEK, ABOUT 0.25 MILE EAST OF THE JACK TONE RD CROSSING, 3 MILES NE OF MANTECA.

Detailed Location: TERRITORY SJ052 FROM CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE AT "LONE TREE CREE, 1/4 MI EAST JACK TONE RD;" EXACT LOCATION UNKNOWN.

Ecological: NEST IN OAK SURROUNDED BY RIPARIAN/AGRICULTURAL HABITAT.

General: 2 ADULT SWAINSON'S HAWKS OBSERVED AT NEST SITE IN 1988.

Owner/Manager: PVT

Athene cunicularia

Element Code: ABNSB10010

burrowing owl

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4
	State:	Candidate Endangered		**State:**	S2
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.			
	Micro:	SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.			

Occurrence No.	251	**Map Index:**	36447	**EO Index:**	31444	**Element Last Seen:**	2000-01-21
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2000-01-21
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2000-01-01

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.79797 / -121.26440	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4184818 E652804	**Elevation (ft):**	25
PLSS:	T01S, R06E, Sec. 36, SW (M)	**Acres:**	0.0

Location: NORTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF THE INTERSECTION OF YOSEMITE AVENUE AND MCKINLEY AVENUE, SE OF LATHROP.

Detailed Location: BURROW IS LOCATED IN A NEWLY-CREATED DETENTION BASIN NORTH OF THE SAN JOAQUIN RAIL STATION PARKING LOT.

Ecological: HABITAT SURROUNDING BURROW CONSISTS OF WINTER WHEAT TO THE WEST, A SMALL BAND OF ANNUAL GRASSLAND TO THE EAST, AND THE REMAINDER IS SCRAPED CLEAN.

General: 2 ADULTS AND 2 JUVENILES OBSERVED ON 24 JUL 1997. 1 ADULT OBSERVED ON 21 JAN 2000.

Owner/Manager: PVT

Occurrence No.	265	**Map Index:**	38438	**EO Index:**	33445	**Element Last Seen:**	1997-03-14
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	1997-03-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1998-03-23

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.82534 / -121.25893	**Accuracy:**	80 meters
UTM:	Zone-10 N4187864 E653229	**Elevation (ft):**	20
PLSS:	T01S, R06E, Sec. 25, NE (M)	**Acres:**	0.0

Location:	0.3 MILE WSW OF INTERSECTION OF LATHROP RD & DURHAM FERRY RD. 0.75 MILE EAST OF LATHROP.
Detailed Location:	
Ecological:	HABITAT CONSISTS OF IRRIGATED PASTURE.
General:	ON 14 MARCH 1997, A PAIR OF OWLS WAS OBSERVED, POSSIBLY WITH EGGS.
Owner/Manager:	UNKNOWN

Occurrence No.	342	**Map Index:**	42086	**EO Index:**	42086	**Element Last Seen:**	2016-07-19
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2016-07-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Decreasing	**Record Last Updated:**	2017-03-07

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.84129 / -121.27272	**Accuracy:**	non-specific area
UTM:	Zone-10 N4189612 E651981	**Elevation (ft):**	20
PLSS:	T01S, R06E, Sec. 13 (M)	**Acres:**	378.0

Location:	SHARPE DEPOT, LATHROP.
Detailed Location:	PAIRS DETECTED IN AREA SINCE 1981, EXACT NEST LOCATIONS '81-97 UNKNOWN. BURROWS NEAR ABANDONED RUNWAY & RR TRACKS. EXACT SITES GIVEN IN ANNUAL REPORTS 1997 & ON. ARTIFICIAL & NATURAL SITES USED 1999-2005; ONLY NATURAL BURROWS USED 2006-09.
Ecological:	MOWED NON-NATIVE GRASSLAND, DOMINATED BY YELLOW STAR THISTLE & BERMUDA GRASS; IN MILITARY SUPPLY/STORAGE AREA. ARTIFICIAL BURROWS INSTALLED 1999 TO MITIGATE HABITAT LOSS FROM CONSTRUCTION OF LARGE BUILDING (20 AC). SHARP DECLINE 2013-2016.
General:	MONITORED YEARLY SINCE 1997 (8 PAIRS & 14 FLEDGLINGS THAT YR). MAX # ADULTS OBSERVED WAS 43, IN 2004. MAX # OF PRODUCTIVE PAIRS WAS 19, MAX # FLEDGLINGS WAS 68, BOTH IN 2006. POP DECLINED AFTER 2013, ONLY 4 PAIRS & 12 YOUNG OBS IN 2016.
Owner/Manager:	DOD-SHARPE DEPOT

Lanius ludovicianus **Element Code:** ABPBR01030

loggerhead shrike

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4
	State:	None		**State:**	S4
	Other:	CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened			
Habitat:	**General:**	BROKEN WOODLANDS, SAVANNAH, PINYON-JUNIPER, JOSHUA TREE, AND RIPARIAN WOODLANDS, DESERT OASES, SCRUB AND WASHES.			
	Micro:	PREFERS OPEN COUNTRY FOR HUNTING, WITH PERCHES FOR SCANNING, AND FAIRLY DENSE SHRUBS AND BRUSH FOR NESTING.			

Occurrence No.	112 **Map Index:** A0818	**EO Index:**	102378	**Element Last Seen:**	2016-04-21
Occ. Rank:	Unknown	**Presence:**	Presumed Extant	**Site Last Seen:**	2016-04-21
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	2016-06-28

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.79596 / -121.28851	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4184557 E650685	**Elevation (ft):**	13
PLSS:	T02S, R06E, Sec. 2, SW (M)	**Acres:**	18.0

Location: PARCEL AT CORNER OF NESTLE WAY AND CHRISTOPHER WAY, LATHROP.

Detailed Location: PROVIDED COORDINATES DON'T MATCH LOCATION DESCRIPTION. MAPPED TO INTERSECTION IN GIVEN DESCRIPTION, "EMPTY PARCEL... AT CORNER OF NESTLE WAY AND CHRISTOPHER WAY," ABOUT 0.3 MILES SE OF COORDINATE LOCATION ALONG D'ARCY PKWY.

Ecological: FAMILY GROUP OBSERVED PERCHING ON AND AROUND CHAIN LINK FENCE AND IN NEARBY TREES ADJACENT TO AN EMPTY PARCEL WITH SPREAD GRAVEL AND SPARSE VEGETATION. ADJACENT TO INDUSTRIAL DEVELOPMENT.

General: PAIR OF ADULTS OBSERVED FEEDING 4 FLEDGLINGS ON 21 APR 2016.

Owner/Manager: UNKNOWN

Melospiza melodia pop. 1

Element Code: ABPBXA3013

song sparrow ("Modesto" population)

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5T3?Q
	State:	None		**State:**	S3?
	Other:	CDFW_SSC-Species of Special Concern			
Habitat:	**General:**	CENTRAL LOWER BASIN OF GREAT VALLEY, FROM COLUSA COUNTY SOUTH TO STANISLAUS COUNTY AND EAST OF SUISUN MARSHES. BREEDS CHIEFLY BELOW 200 FEET ELEVATION.			
	Micro:	FRESHWATER MARSHES, RIPARIAN THICKETS, SPARSELY VEGETATED IRRIGATION CANALS, AND VALLEY OAK RESTORATION SITES. COVER CONSISTS OF WILLOW AND NETTLE THICKETS, GROWTHS OF TULES AND CATTAILS, AND RIPARIAN OAK FORESTS WITH SUFFICIENT UNDERSTORY OF BLACKBERRY.			

Occurrence No.	2	**Map Index:** 89750	**EO Index:** 90756	**Element Last Seen:**	1911-10-03
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1911-10-03
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2013-07-24

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.83230 / -121.31868	**Accuracy:**	1 mile
UTM:	Zone-10 N4188541 E647955	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 21 (M)	**Acres:**	0.0

Location: ALONG SAN JOAQUIN RIVER, JUST N OF CONFLUENCE WITH OLD RIVER, NW OF LATHROP.

Detailed Location: 1911 SPECIMENS COLLECTED AT "LATHROP;" EXACT LOCATION UNKNOWN. 2009 DETECTION AT A POND. MAPPED TO SUITABLE NESTING HABITAT BETWEEN LATHROP AND 2009 POINT IN SHAPEFILE, INCLUDING POSSIBLE PONDS MENTIONED FOR 2009.

Ecological: 2009 HABITAT LISTED AS RIPARIAN SHRUB-SCRUB. GRINNELL (1923) DESCRIBED M. M. MAILLIARDI AS SLIGHTLY DIFFERENT FROM SSP. HEERMANNI; PATTEN (2009) STATED MAILLIARDI SPECIMENS WERE "INDISTINGUISHABLE FROM...HEERMANNII."

General: 2 JUVENILE MALES AND 1 JUVENILE FEMALE (MVZ #19736-8) COLLECTED 3 OCT 1911 BY H.S. SWARTH & H.C. BRYANT. 3 SONG SPARROWS OBSERVED PERCHED, WIDESPREAD AT MARGIN OF POND ON 7 APR 2009; COULD BE OTHER SSP. MIGRATING.

Owner/Manager: UNKNOWN

Occurrence No.	3	**Map Index:** 62568	**EO Index:** 90757	**Element Last Seen:**	1896-05-24
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1896-05-24
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2013-07-23

Quad Summary: Vernalis (3712163), Tracy (3712164), Lathrop (3712173), Union Island (3712174)

County Summary: San Joaquin

Lat/Long:	37.75395 / -121.37281	**Accuracy:**	1 mile
UTM:	Zone-10 N4179762 E643343	**Elevation (ft):**	20
PLSS:	T02S, R05E, Sec. 24 (M)	**Acres:**	0.0

Location: BANTA.

Detailed Location: MAPPED TO PROVIDED LOCALITY "BANTA;" EXACT LOCATION UNKNOWN.

Ecological: POSSIBLY SUITABLE NESTING HABITAT APPEAR TO THE N AND NE. GRINNELL (1923) DESCRIBED M. M. MAILLIARDI AS SLIGHTLY DIFFERENT FROM SSP. HEERMANNI; PATTEN (2009) STATED MAILLIARDI SPECIMENS WERE "INDISTINGUISHABLE FROM...HEERMANNII."

General: 1 JUVENILE MALE (MVZ #77106) COLLECTED 24 MAY 1896 BY W.W. PRICE.

Owner/Manager: UNKNOWN

Agelaius tricolor

Element Code: ABPBXB0020

tricolored blackbird

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1G2

	State:	Threatened	**State:**	S2
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern		
Habitat:	**General:**	HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.		
	Micro:	REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.		

Occurrence No.	95	**Map Index:** 11686	**EO Index:**	24732	**Element Last Seen:**	1974-06-05
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1974-06-05
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2016-02-05

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.79780 / -121.26578	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4184797 E652682	**Elevation (ft):**	20
PLSS:	T01S, R06E, Sec. 36, SW (M)	**Acres:**	0.0

Location:	ABOUT 0.7 MI W OF AIRPORT WAY & YOSEMITE AVE INTERESECTION, 1.9 MI SE OF I-5 & LOUISE AVE INTERSECTION, W OF MANTECA.
Detailed Location:	LOCATION DESCRIBED AS "1 MI W OF AIRPORT WAY, 1/4 MI W OF JUNCT H120 & SWANSON RD" AND "ALONG HIGHWAY 120, 5 MILES WEST OF MANTECA." YOSEMITE AVE WAS FORMERLY HWY 120. MAPPED TO AREA BETWEEN 0.25 MI W OF SWANSON RD & 1 MILE W OF AIRPORT RD.
Ecological:	GIANT CANE. NO WATER PRESENT. COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "WEST MANTECA."
General:	NESTING COLONY OBSERVED ON 5 MAY 1971; YOUNG FLEDGLING OBS ON 9 MAY. SITE REVISITED ON 25 MAY 1972; 25-50 BIRDS OBS, 1 ADULTS OBS FEEDING YOUNG. SITE REVISITED ON 5 JUN 1974; ~500 BIRDS OBS, YOUNG ALREADY FLEDGED BUT FRESH CLUTCHES OBS.
Owner/Manager:	UNKNOWN

Occurrence No.	96	**Map Index:** 11583	**EO Index:**	12696	**Element Last Seen:**	1972-05-26
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1972-05-26
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	1991-07-25

Quad Summary:	Lathrop (3712173), Stockton West (3712183)
County Summary:	San Joaquin

Lat/Long:	37.86964 / -121.32273	**Accuracy:**	1 mile
UTM:	Zone-10 N4192677 E647525	**Elevation (ft):**	5
PLSS:	T01S, R06E, Sec. 04 (M)	**Acres:**	0.0

Location:	0.75 MI SE OF JUNCT OF SAN JOAQUIN RIVER AND RD J-9.
Detailed Location:	COLONY OF APPROX 5000 OBS BY DE HAVEN NESTING IN CATTAIL/BULRUSH HABITAT; FLEDGLING STAGE OF NESTING. COLONY SIZE 0.75 ACRE.
Ecological:	
General:	
Owner/Manager:	UNKNOWN

Occurrence No.	100	**Map Index:**	11786	**EO Index:**	24727	**Element Last Seen:**	1936-06-03
Occ. Rank:	None			**Presence:**	Possibly Extirpated	**Site Last Seen:**	1936-06-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-01-29

Quad Summary: Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.77909 / -121.21884	**Accuracy:**	1 mile
UTM:	Zone-10 N4182799 E656855	**Elevation (ft):**	35
PLSS:	T02S, R07E, Sec. 08 (M)	**Acres:**	0.0

Location: AREA JUST SOUTH OF MANTECA, 1.6 MI W OF HWY 99 & HWY 120 INTERCHANGE.

Detailed Location: COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "SOUTH MANTECA." LOCATION DESCRIBED BY NEFF ONLY AS "SOUTH OF MANTECA." MAPPED TO AREA IMMEDIATELY SOUTH OF HISTORIC (1936) MANTECA CITY PROPER, EXACT LOCATION UNKNOWN.

Ecological: HABITAT IN 1936 DESCRIBED AS CATTAILS ALONG CANAL. COLONY PRESUMED EXTIRPATED BY BEEDY (1991). AREA IS NOW A RESIDENTIAL NEIGHBORHOOD (2014). UNCLEAR IF THE SAME AREA SURVEYED IN 2014 IS THE SAME AS IN 1936.

General: A BREEDING COLONY COMPOSED OF ABOUT 500 NESTS OBSERVED ON 3 JUN 1936 (NEFF 1937). 0 OBSERVED ON 19 APR 2014; MANTECA HAS SINCE BEEN GREATLY DEVELOPED, NO APPROPRIATE HABITAT AROUND IN 2014.

Owner/Manager: UNKNOWN

Occurrence No.	592	**Map Index:**	96951	**EO Index:**	98191	**Element Last Seen:**	1936-06-03
Occ. Rank:	None			**Presence:**	Possibly Extirpated	**Site Last Seen:**	2014-04-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-13

Quad Summary: Vernalis (3712163), Tracy (3712164), Lathrop (3712173), Union Island (3712174)

County Summary: San Joaquin

Lat/Long:	37.74680 / -121.38639	**Accuracy:**	1 mile
UTM:	Zone-10 N4178948 E642160	**Elevation (ft):**	40
PLSS:	T02S, R05E, Sec. 23 (M)	**Acres:**	0.0

Location: JUST E OF TRACY, 2.4 MI W OF I-5 AND GRANT LINE RD INTERSECTION.

Detailed Location: COLONY LOCATION DESCRIBED ONLY AS "EAST OF TRACY." MAPPED GENERALLY TO THE AREA EAST OF TRACY CITY PROPER, NEAR RAILWAYS. EXACT LOCATION UNKNOWN. COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTA, SITE NAME "EAST TRACY."

Ecological: CATTAILS AND WILLOWS ALONG RAILWAY SLOUGH IN 1936. NO APPROPRIATE HABITAT IN 2014. COLONY PRESUMED EXTIRPATED BY BEEDY (1991).

General: A BREEDING COLONY COMPOSED OF ABOUT 2,500 NESTS OBSERVED ON 3 JUN 1936 (NEFF 1937). 0 OBSERVED ON 19 APR 2014.

Owner/Manager: UNKNOWN

Xanthocephalus xanthocephalus

Element Code: ABPBXB3010

yellow-headed blackbird

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5
	State:	None		**State:**	S3
	Other:	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern			
Habitat:	**General:**	NESTS IN FRESHWATER EMERGENT WETLANDS WITH DENSE VEGETATION AND DEEP WATER. OFTEN ALONG BORDERS OF LAKES OR PONDS.			
	Micro:	NESTS ONLY WHERE LARGE INSECTS SUCH AS ODONATA ARE ABUNDANT, NESTING TIMED WITH MAXIMUM EMERGENCE OF AQUATIC INSECTS.			

Occurrence No.	5	**Map Index:** 53639	**EO Index:** 53639	**Element Last Seen:**	1894-05-10
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1894-05-10
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2003-12-18

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.81681 / -121.28368	**Accuracy:**	1 mile
UTM:	Zone-10 N4186878 E651067	**Elevation (ft):**	15
PLSS:	T01S, R06E, Sec. 26 (M)	**Acres:**	0.0

Location: LATHROP.

Detailed Location:

Ecological:

General: MVZ EGG SET #6846 COLLECTED 10 MAY 1894 BY A. WOLFE.

Owner/Manager: UNKNOWN

Acipenser medirostris pop. 1

Element Code: AFCAA01031

green sturgeon - southern DPS

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G2T1
	State:	None		**State:**	S1
	Other:	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered			
Habitat:	**General:**	SPAWNING SITE FIDELITY. SPAWNS IN THE SACRAMENTO, FEATHER AND YUBA RIVERS. PRESENCE IN UPPER STANISLAUS AND SAN JOAQUIN RIVERS MAY INDICATE SPAWNING. NON-SPAWNING ADULTS OCCUPY MARINE/ESTUARINE WATERS. DELTA ESTUARY IS IMPORTANT FOR REARING JUVENILES.			
	Micro:	SPAWNING OCCURS PRIMARILY IN COOL (11-15 C) SECTIONS OF MAINSTEM RIVERS IN DEEP POOLS (8-9 METERS) WITH SUBSTRATE CONTAINING SMALL TO MEDIUM SIZED SAND, GRAVEL, COBBLE, OR BOULDER.			

Occurrence No.	6	**Map Index:**	B8047	**EO Index:**	121161	**Element Last Seen:**	2020-04-11
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2020-04-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2022-05-12

Quad Summary: Stevinson (3712037), Gustine (3712038), Hatch (3712048), Crows Landing (3712141), Brush Lake (3712151), Westley (3712152), Ripon (3712162), Vernalis (3712163), Lathrop (3712173), Stockton West (3712183)

County Summary: Merced, San Joaquin, Stanislaus

Lat/Long:	37.34702 / -120.97617	**Accuracy:**	non-specific area
UTM:	Zone-10 N4135291 E679260	**Elevation (ft):**	57
PLSS:	T07S, R09E, Sec. 3 (M)	**Acres:**	8664.0

Location: SAN JOAQUIN RIVER, FROM PORT OF STOCKTON UPSTREAM TO HWY 165 AT SAN LUIS NATIONAL WILDLIFE REFUGE, WEST OF MERCED.

Detailed Location: MAPPED TO 92 MILES OF THE LOWER SAN JOAQUIN RIVER. THE SAN JOAQUIN RIV FROM MERCED RIV TO FRIANT DAM IS PART OF THE SAN JOAQUIN RIVER RESTORATION PROGRAM, A SETTLEMENT BY USBOR. POSITIVE DETECTION NEAR MERCED RIVER AT HILLS FERRY (RM 118).

Ecological: CRITICAL HABITAT TO STANISLAUS RIVER. HISTORIC USE OF SAN JOAQUIN RIVER BASIN IS UNDOCUMENTED & OCCURRENCE & HABITAT USE POORLY UNDERSTOOD. THE MERCED RIVER & UPSTREAM OF HWY 140 NEEDS INVESTIGATION. STURGEON POACHING IS A CONCERN.

General: ANGLER REPORTS IN 2009, 2010, 2013, 2014 & 2016; SOME UPSTREAM OF HWY 140. 1 ADULT CAPTURED, PHOTOGRAPHED, RELEASED & POSITIVELY IDENTIFIED ON 11 APR 2020; 1ST CONFIRMED & FURTHEST UPSTREAM RECORD IN THE SAN JOAQUIN RIVER (HILLS FERRY).

Owner/Manager: USBOR, USFWS, DPR, UNK

Occurrence No.	9	**Map Index:**	B8096	**EO Index:**	121175	**Element Last Seen:**	2019-09-03
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2019-09-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2022-05-12

Quad Summary: Lathrop (3712173), Union Island (3712174), Clifton Court Forebay (3712175), Stockton West (3712183), Holt (3712184), Woodward Island (3712185), Terminous (3812114), Bouldin Island (3812115), Jersey Island (3812116), Thornton (3812124), Isleton (3812125), Bruceville (3812134)

County Summary: Alameda, Contra Costa, Sacramento, San Joaquin

Lat/Long:	38.09087 / -121.64918	**Accuracy:**	non-specific area
UTM:	Zone-10 N4216759 E618455	**Elevation (ft):**	0
PLSS:	T03N, R03E, Sec. 21 (M)	**Acres:**	38681.0

Location: SACRAMENTO-SAN JOAQUIN DELTA; S OF THE SACRAMENTO RIVER TO CLIFTON COURT FOREBAY, AND W OF STOCKTON TO ANTIOCH BRIDGE.

Detailed Location: SAN JOAQUIN, MOKELUMNE, NORTH MOKELUMNE, SOUTH MOKELUMNE, OLD, MIDDLE, FALSE RIVERS; GEORGIANA, SNODGRASS, POTATO, LITTLE POTATO, THREEMILE, DUTCH SLOUGHS; AND DELTA CROSS CHANNEL, FRANKS TRACT, FISHERMANS CUT, & CLIFTON COURT FOREBAY.

Ecological: CRITICAL HABITAT. IMPORTANT REARING HABITAT FOR JUVENILES; FORAGING HABITAT & MIGRATION ROUTES FOR SPAWNING ADULTS. WATER PROJECT FISH COLLECTION SITES REGULARLY ENTRAIN JUVENILES WITH UNUSUAL HIGH COUNTS OF 7,311 (1974) & 2,265 (1975).

General: CAUGHT OR COLLECTED IN 1963, 1964, 1967-1980, 1992, 1993, & 1998. JUVENILES & ADULTS DETECTED OR STUDIED ANNUALLY FROM 2006 - 2019 (TELEMETRY STUDIES; FISHING REPORT CARD; SALVAGE).

Owner/Manager: USACE, USBOR, DWR, UNKNOWN

Oncorhynchus mykiss irideus pop. 11 **Element Code:** AFCHA0209K

steelhead - Central Valley DPS

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G5T2Q
	State:	None		**State:**	S2
	Other:	AFS_TH-Threatened, CDFW_SSC-Species of Special Concern			
Habitat:	**General:**	POPULATIONS IN THE SACRAMENTO AND SAN JOAQUIN RIVERS AND THEIR TRIBUTARIES.			
	Micro:				

Occurrence No.	25	**Map Index:**	91542	**EO Index:**	92609	**Element Last Seen:**	2013-XX-XX
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2013-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-02-27

Quad Summary: Poso Farm (3612084), Oxalis (3612085), Santa Rita Bridge (3712015), Delta Ranch (3712016), Turner Ranch (3712026), San Luis Ranch (3712027), Stevinson (3712037), Gustine (3712038), Hatch (3712048), Crows Landing (3712141), Brush Lake (3712151), Westley (3712152), Ripon (3712162), Vernalis (3712163), Lathrop (3712173)

County Summary: Fresno, Madera, Merced, San Joaquin, Stanislaus

Lat/Long:	37.80528 / -121.31601	**Accuracy:**	non-specific area
UTM:	Zone-10 N4185547 E648244	**Elevation (ft):**	
PLSS:	T01S, R06E, Sec. 33 (M)	**Acres:**	14775.0

Location: LOWER SAN JOAQUIN RIVER, FROM THE MOSSDALE TRAWL SITE (RM 54) TO SACK DAM (RM 182).

Detailed Location: SMOLTS CAUGHT AT MOSSDALE (MAIN POINT OF ENTRY INTO DELTA) SINCE 1968. BARRIER OPERATED AT HILLS FERRY (RM 118) SINCE 1992 DIVERTS MIGRATING FISH INTO MERCED R. SACK DAM, IMPASSABLE IN LOW-WATER YEARS, IS PRACTICAL U/S LIMIT TO MIGRATION.

Ecological: STEELHEAD (SH) WIDELY CONSIDERED EXTIRPATED S OF MERCED R; BUT 2012-13 INVENTORY FOUND O. MYKISS ABOVE HILLS FERRY BARRIER, WHICH MAY NOT BE FISH-TIGHT. DESPITE 2006 FLOW SETTLEMENT, "LOW VIABILITY" FOR SH DUE TO LACK OF REARING HABITAT.

General: YEARLY CATCH AT MOSSDALE TRAWL 0-41 (AVG 8), 1994-2011; MOSLTY UNCLIPPED SMOLTS. NO SH DET ABOVE RM 118 DURING SH MONITORING BEGUN 2012 (BUT FISH ASSEMBLAGE INVENTORY FOUND TROUT). 2 OF 6 SMOLTS SAMPLED IN '08 OTOLITH STUDY WERE SH PROGENY.

Owner/Manager: UNKNOWN

Occurrence No.	27	**Map Index:**	91603	**EO Index:**	92687	**Element Last Seen:**	2012-05-07
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-05-07
Occ. Type:	Natural/Native occurrence			**Trend:**	Decreasing	**Record Last Updated:**	2014-02-27

Quad Summary: Lathrop (3712173), Stockton West (3712183), Holt (3712184), Woodward Island (3712185), Terminous (3812114), Bouldin Island (3812115), Jersey Island (3812116), Antioch North (3812117), Honker Bay (3812118), Thornton (3812124), Isleton (3812125), Rio Vista (3812126), Courtland (3812135), Liberty Island (3812136), Florin (3812144), Clarksburg (3812145)

County Summary: Contra Costa, Sacramento, San Joaquin, Solano, Yolo

Lat/Long:	38.10457 / -121.59990	**Accuracy:**	non-specific area
UTM:	Zone-10 N4218343 E622752	**Elevation (ft):**	
PLSS:	T03N, R03E, Sec. 13 (M)	**Acres:**	55159.0

Location: SACRAMENTO-SAN JOAQUIN DELTA, FROM CHIPPS ISLAND TO SAN JOAQUIN R AT DOS REIS(RM51) & SACRAMENTO R AT GARCIA BEND(RM49).

Detailed Location: AREA OF DELTA MAPPED INCLUDES 19 BEACH SEINE SITES AT WHICH STEELHEAD WERE REGULARLY DETECTED, 1976-2012; VARIOUS MIDWATER TRAWL SITES SAMPLED 1968-2005; AND THE CHIPPS ISLAND TRAWL SITE, OPERATED SINCE 1976.

Ecological: LOWER RIVERS & DELTA MOSTLY UNSUITABLE FOR REARING DUE TO HIGH WATER TEMPS; FUNCTION MAINLY AS MIGRATORY CORRIDOR. 2012 TELEMETRY STUDY SHOWED MAIN JUVENILE EMIGRATION ROUTE THROUGH MAINSTEM SACRAMENTO R; & MIGRATORY SUCCESS LESS THAN 25%.

General: ANNUAL SEINE CATCH 1-136 (HIGH IN 1995) SINCE 1976; OVER 90% HATCHERY-ORIGIN (HO) FROM 2000-2012. CHIPPS TRAWL CATCH 9-488 (HIGH IN '95); %HO INCREASED FROM 2000-12. ANALYSIS SUGGESTS PRODUCTION OF 100-300K WILD SMOLTS/YR; MAY BE DECLINING.

Owner/Manager: UNKNOWN, DFG, TNC

Spirinchus thaleichthys pop. 2

Element Code: AFCHB03040

longfin smelt - San Francisco Bay-Delta DPS

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G5TNRQ
	State:	Threatened		**State:**	S1
	Other:	IUCN_LC-Least Concern			
Habitat:	**General:**	PELAGIC AND ANADROMOUS WITHIN THE SACRAMENTO-SAN JOAQUIN RIVER DELTA, SAN FRANCISCO BAY, AND GULF OF THE FARALLONES. SPAWNS IN LOWER FRESHWATER REACHES OF SACRAMENTO AND SAN JOAQUIN RIVERS. FIRST YEAR IN SUISUN BAY; LATER SF BAY OR GULF OF THE FARALLONES.			
	Micro:	OCCURS IN SALINITIES RANGING FROM PURE FRESHWATER TO PURE SALTWATER; TYPICALLY SALINITIES RANGING FROM 14-28 PARTS PER THOUSAND (PPT). GENERALLY OCCUPIES WATER TEMPERATURES FROM 61-68F, WITH SPAWNING OCCURRING IN WATER TEMPERATURES FROM 41-58F.			

Occurrence No.	37	**Map Index:** 89763	**EO Index:**	90769	**Element Last Seen:** 2012-04-23
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:** 2012-04-23
Occ. Type:	Natural/Native occurrence		**Trend:**	Decreasing	**Record Last Updated:** 2013-07-24

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.80957 / -121.32601	**Accuracy:**	non-specific area
UTM:	Zone-10 N4186006 E647355	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 33 (M)	**Acres:**	401.0

Location: SAN JOAQUIN RIVER, FROM VICINITY OF DOS REIS ROAD (RM 50.5) TO BEND JUST NORTH OF MOSSDALE (RM 55), LATHROP.

Detailed Location: REACH INCLUDES 2 USFWS MONITORING SITES, FROM N: DOS REIS (SJ051E), SAMPLED WEEKLY WITH BEACH SEINES. MOSSDALE CROSSING (SJ054M), SAMPLED WITH KODIAK TRAWL 3X PER WEEK YEAR-ROUND (+/-) SINCE 1994.

Ecological: THIS IS THE FURTHEST UPSTREAM THAT LONGFIN SMELT HAVE BEEN RECORDED FROM THE SAN JOAQUIN RIVER, WELL ABOVE MAIN SPAWNING GROUNDS BELOW MEDFORD ISLAND. SPAWNING MAY SHIFT UPSTREAM IN YEARS OF LOW FRESHWATER INFLOW/INCREASED SALINITY.

General: ONLY DETECTIONS FROM THIS REACH WERE 1 ADULT CAUGHT IN BEACH SEINES, APR 1996 AND 2 YOY CAUGHT IN MOSSDALE TRAWLS, 23 APR 2012.

Owner/Manager: UNKNOWN

Sylvilagus bachmani riparius

Element Code: AMAEB01021

riparian brush rabbit

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G5T1
	State:	Endangered		**State:**	S2
	Other:				
Habitat:	**General:**	RIPARIAN AREAS ON THE SAN JOAQUIN RIVER IN NORTHERN STANISLAUS COUNTY.			
	Micro:	DENSE THICKETS OF WILD ROSE, WILLOWS, AND BLACKBERRIES.			

Occurrence No.	3	**Map Index:**	52111	**EO Index:**	52111	**Element Last Seen:**	2020-12-23
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2020-12-23
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-22

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.79532 / -121.31217	**Accuracy:**	specific area
UTM:	Zone-10 N4184448 E648602	**Elevation (ft):**	10
PLSS:	T02S, R06E, Sec. 04, NE (M)	**Acres:**	36.3

Location: MOSSDALE OXBOW ON THE EAST SIDE OF THE SAN JOAQUIN RIVER (RM 55), 2 MILES SW OF LATHROP.

Detailed Location: SITE ABUTS A HOUSING DEVELOPMENT (MOSSDALE LANDING). DETECTION ON 2 FEB 2003 WAS FIRST RECORDED ON EAST SIDE OF SAN JOAQUIN RIVER.

Ecological: ABOUT 27 ACRES OF RIPARIAN FOREST DOMINATED BY FREMONT COTTONWOOD, VALLEY OAK, WILD ROSE, BLACKBERRY, AND ANNUAL GRASSES, WITH SANDBAR WILLOW, STINGING NETTLE, AND BLESSED MILKTHISTLE. NON-NATIVE RATTUS RATTUS CAPTURED IN TRAPS IN 2003.

General: 13 DETECTED IN FEB 2003. MALE & FEMALE TRAPPED APR 2003 FOR CONTROLLED PROPAGATION. 3 DETECTED IN DEC 2003. 13 IN NOV 2004. 17 IN FEB, 7 IN MAR, 1 IN DEC 2005. 2 IN DEC 2006. 1 IN MAR '08. 2 IN JAN, 5 IN FEB '09. 2 IN JAN '10. UNK IN 2020.

Owner/Manager: CNLM

Occurrence No.	4	**Map Index:**	91734	**EO Index:**	57425	**Element Last Seen:**	2006-01-03
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-01-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-19

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.77944 / -121.33686	**Accuracy:**	specific area
UTM:	Zone-10 N4182646 E646460	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 8, N (M)	**Acres:**	23.0

Location: ALONG PARADISE CUT JUST WEST OF THE RAILROAD TRACKS WEST OF I-5, WEST OF MANTECA.

Detailed Location: 2001 DETECTIONS "PRIMARILY...IMMEDIATELY WEST OF UNION PACIFIC RAILROAD TRACKS WEST OF INTERSTATE 5," EXACT LOCATIONS UNKNOWN. MAPPED TO COORDINATES GIVEN FOR 2003-2006 DETECTIONS. PART OF "SOUTH DELTA" POPULATION.

Ecological: 2003: ABOUT 135 AC OF POTENTIAL HABITAT, MUCH OF IT ADJACENT TO I-205 WIDENING PROJECT; ALONG CHANNELS & SLOUGH THAT FLOOD IN HIGH FLOWS. 2003-06: HABITAT "POOR;" SANDBAR WILLOW THICKET W/NATIVE ROSE & BLACKBERRY, GRASSES, OAK & COTTONWOOD.

General: UNKNOWN NUMBER TRAPPED IN 2001 (A TOTAL OF 21 CAUGHT ALONG PARADISE CUT, MOSTLY IN THIS VICINITY); INCLUDING 1 FEMALE (#144) USED FOR CONTROLLED PROPAGATION PROGRAM. 1 DETECTED IN NOV 2002, 10 IN DEC 2003, 4 IN NOV 2004, & 2 IN JAN 2006.

Owner/Manager: PVT, UNKNOWN

Occurrence No.	5	**Map Index:**	91735	**EO Index:**	92814	**Element Last Seen:**	2006-11-04
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-11-04
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-20

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.76604 / -121.31988	**Accuracy:**	specific area
UTM:	Zone-10 N4181186 E647982	**Elevation (ft):**	10
PLSS:	T02S, R06E, Sec. 16, NW (M)	**Acres:**	17.0

Location:	ALONG PARADISE CUT FROM ABOUT 0.3 TO 0.7 MILES SE OF THE INTERSTATE 5 CROSSING, SW OF MANTECA.
Detailed Location:	2001 DETECTIONS ALONG PARADISE CUT, BUT MAINLY TO WEST OF I-5 (SEE OCC #4); EXACT LOCATIONS UNKNOWN. MAPPED TO COORDINATES GIVEN FOR DETECTIONS IN 2005 AND 2006. PART OF "SOUTH DELTA" POPULATION.
Ecological:	2003: ABOUT 135 AC OF POTENTIAL HABITAT, MUCH OF IT ADJACENT TO I-205 WIDENING PROJECT; ALONG CHANNELS & SLOUGH THAT FLOOD IN HIGH FLOWS. 2003-06: HABITAT "POOR;" SANDBAR WILLOW THICKET W/NATIVE ROSE & BLACKBERRY, GRASSES, OAK & COTTONWOOD.
General:	UNKNOWN # TRAPPED IN 2001 (OUT OF A TOTAL OF 21 CAUGHT ALONG PARADISE CUT). 1 DETECTED ON 11 APR 2005. 6 DETECTED ON 12 APR AND 8 ON 4 NOV 2006.
Owner/Manager:	PVT

Occurrence No.	6	**Map Index:**	91737	**EO Index:**	92815	**Element Last Seen:**	2010-01-07
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2010-01-07
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-19

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.78278 / -121.32543	**Accuracy:**	specific area
UTM:	Zone-10 N4183034 E647459	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 04 (M)	**Acres:**	32.0

Location:	ALONG RAILROAD TRACKS ON WEST SIDE OF I-5, ABOUT 0.7 MILES NORTH OF I-5 AT PARADISE CUT, WEST OF MANTECA.
Detailed Location:	2001 DETECTION IN VICINITY PER ILLUSTRATION IN 2002 REPORT, EXACT LOCATION UNKNOWN. MAPPED TO COORDINATES GIVEN FOR 2003-2010 DETECTIONS. PART OF "SOUTH DELTA" POPULATION.
Ecological:	2003-10: UNDERSTORY OF NATIVE ROSE AND SOME BLACKBERRY, GRASSES, AND WEEDS; CANOPY VALLEY OAK AND PATCHES OF WILLOW. HABITAT POOR, CONFINED TO NARROW STRIPS IN RAILROAD RIGHT-OF-WAY. SURROUNDING LAND USE AGRICULTURAL.
General:	1 MALE (#145) TRAPPED IN 2001 FOR CONTROLLED PROPAGATION PROGRAM; FATHERED 1-3 YOUNG. 14 RABBITS DETECTED ON 9 DEC 2003. 9 IN NOV 2004. 1 IN FEB AND 2 IN DEC 2005. 6 IN JAN AND 2 IN DEC 2006. 4 IN DEC 2007. 3 IN JAN 2010.
Owner/Manager:	PVT

Occurrence No.	7	**Map Index:**	91738	**EO Index:**	92816	**Element Last Seen:**	2009-12-17
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-12-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-19

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.79676 / -121.36474	**Accuracy:**	specific area
UTM:	Zone-10 N4184525 E643972	**Elevation (ft):**	14
PLSS:	T01S, R05E, Sec. 36, SE (M)	**Acres:**	67.0

Location:	ALONG PARADISE CUT ON BOTH SIDES OF PARADISE RD CROSSING, ABOUT 2.2 MILES NW OF I-5 CROSSING, NE OF TRACY.
Detailed Location:	MAPPED TO COORDINATES GIVEN FOR 2003-2009 DETECTIONS AND 2004 SPECIMEN. PART OF "SOUTH DELTA" POPULATION.
Ecological:	2003-2009: "POOR" HABITAT; SANDBAR WILLOW THICKET WITH NATIVE ROSE AND BLACKBERRY AND MIXED GRASSES. SURROUNDING LAND USE AGRICULTURAL.
General:	3 RABBITS DETECTED IN DEC 2003. 13 IN NOV 2004; 1 SPECIMEN WAS COLLECTED ON 5 NOV 2004. 6 DETECTED IN DEC 2005. 1 IN DEC 2006. 4 IN FEB AND 4 IN DEC 2007. 9 IN DEC 2009.
Owner/Manager:	PVT

Occurrence No.	9	**Map Index:**	91745	**EO Index:**	92835	**Element Last Seen:**	2004-02-10
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-02-10
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-19

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.83652 / -121.31588	**Accuracy:**	specific area
UTM:	Zone-10 N4189013 E648193	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 21, NE (M)	**Acres:**	10.0

Location:	EAST SIDE OF SAN JOAQUIN RIVER, FROM ABOUT 0.1 TO 0.3 MILE NORTH OF DE LIMA RD, 1.6 MILES NW OF I-5 AT W LATHROP RD.
Detailed Location:	MAPPED TO COORDINATES GIVEN FOR 2004 DETECTIONS.
Ecological:	LAND USE DESCRIBED AS AGRICULTURE AND PARKLAND.
General:	2 RABBITS DETECTED ON 10 FEB 2004.
Owner/Manager:	PVT

Occurrence No.	10	**Map Index:**	91746	**EO Index:**	92836	**Element Last Seen:**	2004-02-10
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-02-10
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-19

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.82484 / -121.31335	**Accuracy:**	specific area
UTM:	Zone-10 N4187721 E648439	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 28, NE (M)	**Acres:**	10.0

Location: EAST SIDE OF SAN JOAQUIN RIVER FROM ABOUT 0.25 TO 0.3 MI S OF DOS REIS RD, FROM 1 TO 1.25 MI W OF I-5 AT W LATHROP RD.

Detailed Location: MAPPED TO COORDINATES GIVEN FOR 2004 DETECTIONS.

Ecological: LAND USE DESCRIBED AS AGRICULTURE.

General: 2 RABBITS DETECTED ON 10 FEB 2004.

Owner/Manager: PVT

Occurrence No.	11	**Map Index:**	91747	**EO Index:**	92837	**Element Last Seen:**	2004-02-09
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-02-09
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-19

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.82146 / -121.31876	**Accuracy:**	80 meters
UTM:	Zone-10 N4187338 E647970	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 28, NW (M)	**Acres:**	0.0

Location: EAST SIDE OF THE SAN JOAQUIN RIVER, ABOUT 1.4 MILES NW OF I-5 AT E LOUISE AVE AND1.6 MILES WSW OF I-5 AT W LATHROP RD.

Detailed Location: MAPPED TO COORDINATES GIVEN FOR 2004 DETECTION.

Ecological: LAND USE DESCRIBED AS AGRICULTURE.

General: 1 RABBIT DETECTED ON 9 FEB 2004.

Owner/Manager: PVT

Occurrence No.	12	**Map Index:**	91756	**EO Index:**	92852	**Element Last Seen:**	2002-08-14
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-08-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2021-04-20

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.78657 / -121.31229	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4183477 E648610	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 04, SE (M)	**Acres:**	0.0

Location: ALONG RAILROAD TRACKS ON WEST SIDE OF INTERSTATE 5, 0.3 MILE NW OF I-5 BRIDGE AT MOSSDALE, WEST OF MANTECA.

Detailed Location: MAPPED TO CAPTURE LOCATION ILLUSTRATED IN 2002 REPORT, EXACT LOCATION NOT GIVEN.

Ecological:

General: 1 MALE (#146) TRAPPED NOV-DEC 2001 FOR USE IN CONTROLLED PROPAGATION & REINTRODUCTION FATHERED 4-7 YOUNG. #146 WAS REPATRIATED AT CAPTURE LOCATION IN 2002 AND DIED 5 DAYS LATER (PROBABLE PREDATION).

Owner/Manager: UNKNOWN

Occurrence No.	13	**Map Index:**	91758	**EO Index:**	92856	**Element Last Seen:**	2003-02-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-02-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-03-06

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.75980 / -121.32289	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4180489 E647729	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 16, SW (M)	**Acres:**	0.0

Location:	RAILROAD TRACKS ON E SIDE OF I-5 AT TOM PAINE SLOUGH CROSSING, ABOUT 1.6 MI SW OF I-5 BRIDGE AT MOSSDALE.
Detailed Location:	MAPPED TO CAPTURE LOCATION ILLUSTRATED IN 2002 REPORT, EXACT LOCATION NOT GIVEN.
Ecological:	RAILROAD RIGHT-OF-WAY THROUGH TOM PAINE SLOUGH. RABBIT DEMONSTRATED SMALL HOME RANGE WHEN MONITORED AFTER REPATRIATION.
General:	1 FEMALE (#141) TRAPPED NOV-DEC 2001 FOR USE IN CONTROLLED PROPAGATION & REINTRODUCTION PROGRAM. #141 PRODUCED 6 YOUNG, WAS RETURNED TO CAPTURE LOCATION IN 2002, AND WAS STILL ALIVE WHEN MONITORING ENDED IN FEB 2003.
Owner/Manager:	UNKNOWN

Occurrence No.	14	**Map Index:**	91761	**EO Index:**	92858	**Element Last Seen:**	2003-02-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-02-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-03-06

Quad Summary:	Lathrop (3712173)
County Summary:	San Joaquin

Lat/Long:	37.76130 / -121.31129	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4180673 E648748	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 16, NE (M)	**Acres:**	0.0

Location:	NORTH SIDE OF PARADISE CUT AT ITS CONFLUENCE WITH THE SAN JOAQUIN RIVER.
Detailed Location:	MAPPED TO CAPTURE LOCATION ILLUSTRATED IN 2002 REPORT, EXACT LOCATION NOT GIVEN.
Ecological:	
General:	1 MALE (#140) TRAPPED NOV-DEC 2001 FOR USE IN CONTROLLED PROPAGATION & REINTRODUCTION PROGRAM. #140 FATHERED 6-7 YOUNG, WAS RETURNED TO CAPTURE LOCATION IN 2002, AND WAS STILL ALIVE IN FEB 2003 WHEN MONITORING ENDED.
Owner/Manager:	UNKNOWN

Desmocerus californicus dimorphus **Element Code:** IICOL48011

valley elderberry longhorn beetle

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G3T3
	State:	None		**State:**	S3
	Other:				
Habitat:	**General:**	OCCURS ONLY IN THE CENTRAL VALLEY OF CALIFORNIA, IN ASSOCIATION WITH BLUE ELDERBERRY (SAMBUCUS MEXICANA).			
	Micro:	PREFERS TO LAY EGGS IN ELDERBERRIES 2-8 INCHES IN DIAMETER; SOME PREFERENCE SHOWN FOR "STRESSED" ELDERBERRIES.			

Occurrence No.	158	**Map Index:**	39500	**EO Index:**	34502	**Element Last Seen:**	1984-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1984-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2012-01-31

Quad Summary:	Lathrop (3712173), Union Island (3712174), Holt (3712184)
County Summary:	San Joaquin

Lat/Long:	37.85752 / -121.37772	**Accuracy:**	non-specific area
UTM:	Zone-10 N4191247 E642711	**Elevation (ft):**	8
PLSS:	T01S, R05E, Sec. 12 (M)	**Acres:**	392.0

Location:	ALONG WING LEVEE RD BETWEEN HOWARD AND UNDINE RDS, UNION ISLAND, NEAR MIDDLE RIVER, ABOUT 5 AIR MI NW OF LATHROP.
Detailed Location:	MAPPED TO GENERAL DESCRIPTION OF "...BEETLES WERE COLLECTED ALONG WING LEVEE ROAD NEAR MIDDLE OR OLD RIVER..." AND "...MAJORITY OF THESE STANDS OF ELDERBERRY ARE PRESENT BETWEEN HOWARD AND UNDINE ROADS..." MAPPED GENERALLY TO ROAD.
Ecological:	VALLEY ELDERBERRY TREES & SHRUBS WERE LOCATED ALONG THE ROAD & ALONG THE RIVER. OTHER STANDS OF ELDERBERRY TREES EXISTED NORTH OF HOWARD RD, & LIKELY ELSEWHERE ALONG MIDDLE AND OLD RIVERS. AWAY FROM ROAD & RIPARIAN IS TILLED AGRICULTURE.
General:	ONE ADULT CAPTURED ALONG WING LEVEE ROAD. EXIT HOLES OBSERVED DURING MAY AND JUN SURVEYS.
Owner/Manager:	UNKNOWN

Lytta moesta **Element Code:** IICOL4C020

moestan blister beetle

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:				
Habitat:	**General:**	CENTRAL CALIFORNIA.			
	Micro:				

Occurrence No.	9	**Map Index:** 64365	**EO Index:** 64444	**Element Last Seen:**	19XX-XX-XX
Occ. Rank:	Unknown		**Presence:** Possibly Extirpated	**Site Last Seen:**	19XX-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2006-03-28

Quad Summary: Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.79741 / -121.21887	**Accuracy:**	1 mile
UTM:	Zone-10 N4184832 E656813	**Elevation (ft):**	40
PLSS:	T01S, R07E, Sec. 32 (M)	**Acres:**	0.0

Location: MANTECA.

Detailed Location:

Ecological:

General: LOCALITY FROM CALIFORNIA BEETLE PROJECT ONLINE DATABASE; COLLECTION INFORMATION NOT GIVEN. HISTORICAL RECORD; EXACT LOCATION UNKNOWN.

Owner/Manager: UNKNOWN

Bombus occidentalis **Element Code:** IIHYM24252

western bumble bee

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3
	State:	Candidate Endangered		**State:**	S1
	Other:	IUCN_VU-Vulnerable, USFS_S-Sensitive			
Habitat:	**General:**	ONCE COMMON AND WIDESPREAD, SPECIES HAS DECLINED PRECIPITOUSLY FROM CENTRAL CA TO SOUTHERN B.C., PERHAPS FROM DISEASE.			
	Micro:				

Occurrence No.	234	**Map Index:**	11611	**EO Index:**	100251	**Element Last Seen:**	1962-10-03
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1962-10-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-01-11

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.78839 / -121.30334	**Accuracy:**	1 mile
UTM:	Zone-10 N4183692 E649395	**Elevation (ft):**	25
PLSS:	T02S, R06E, Sec. 03 (M)	**Acres:**	0.0

Location: 4 MILES WEST OF MANTECA.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB ABOUT 4 ROAD MILES WEST OF THE CITY OF MANTECA.

Ecological:

General: COLLECTED 3 OCT 1962.

Owner/Manager: UNKNOWN

Occurrence No.	235	**Map Index:**	98775	**EO Index:**	100252	**Element Last Seen:**	1962-10-03
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1962-10-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-01-15

Quad Summary: Avena (3712171), Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.79805 / -121.11484	**Accuracy:**	1 mile
UTM:	Zone-10 N4185082 E665971	**Elevation (ft):**	60
PLSS:	T01S, R08E, Sec. 32 (M)	**Acres:**	0.0

Location: 5.5 MILES EAST OF MANTECA.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB ABOUT 5.5 ROAD MILES EAST OF THE CITY OF MANTECA, ALONG HIGHWAY 120.

Ecological:

General: COLLECTED 3 OCT 1962.

Owner/Manager: UNKNOWN

Bombus pensylvanicus **Element Code:** IIHYM24260

American bumble bee

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3G4
	State:	None		**State:**	S2
	Other:	IUCN_VU-Vulnerable			
Habitat:	**General:**				
	Micro:	LONG-TONGUED; FORAGES ON A WIDE VARIETY OF FLOWERS INCLUDING VETCHES (VICIA), CLOVERS (TRIFOLIUM), THISTLES (CIRSIUM), SUNFLOWERS (HELIANTHUS), ETC. NESTS ABOVE GROUND UNDER LONG GRASS OR UNDERGROUND. QUEENS OVERWINTER IN ROTTEN WOOD OR UNDERGROUND.			

Occurrence No.	86	**Map Index:** 98775	**EO Index:** 124177	**Element Last Seen:**	1962-11-05
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1962-11-05
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2023-06-16

Quad Summary: Avena (3712171), Manteca (3712172)

County Summary: San Joaquin

Lat/Long:	37.79805 / -121.11484	**Accuracy:**	1 mile
UTM:	Zone-10 N4185082 E665971	**Elevation (ft):**	60
PLSS:	T01S, R08E, Sec. 32 (M)	**Acres:**	0.0

Location: ABOUT 1.8 MI NW OF S WAGNER ROAD AT E CEDAR LANE, 5.5 MI E OF MANTECA.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED NON-SPECIFICALLY TO LOCATION STATED AS "5.5 MI E OF MANTECA".

Ecological: BOMBUS OCCIDENTALIS ALSO COLLECTED AT THIS LOCATION.

General: 1 ADULT FEMALE COLLECTED BY A. MICHELBACHER ON 5 NOV 1962 (EMEC #550750).

Owner/Manager: UNKNOWN

Eryngium racemosum **Element Code:** PDAPI0Z0S0

Delta button-celery

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1
	State:	Endangered		**State:**	S1
	Other:	Rare Plant Rank - 1B.1			
Habitat:	**General:**	RIPARIAN SCRUB.			
	Micro:	SEASONALLY INUNDATED FLOODPLAIN ON CLAY. 1-335 M.			

Occurrence No.	3 **Map Index:** 11611	**EO Index:**	20069	**Element Last Seen:**	1913-06-05
Occ. Rank:	None	**Presence:**	Possibly Extirpated	**Site Last Seen:**	1984-08-28
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	2013-08-27

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.78839 / -121.30334	**Accuracy:**	1 mile
UTM:	Zone-10 N4183692 E649395	**Elevation (ft):**	15
PLSS:	T02S, R06E, Sec. 03 (M)	**Acres:**	0.0

Location: NEAR HISTORICAL MONUMENT ON HWY 120, ABOUT 3 MILES SOUTH OF LATHROP.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN VICINITY OF I-5 CROSSING OF SAN JOAQUIN RIVER, AROUND 3 MILES SSW OF LATHROP.

Ecological:

General: ONLY SOURCE OF INFORMATION IS SITE DESCRIPTION FROM HOWARD CITED IN 1974 CNPS NOTECARD, OBSERVATION DATE UNKNOWN. HABITAT GONE IN 1984. 1892 BIOLETTI AND 1913 SUKSDORF COLLECTIONS FROM VICINITY OF LATHROP ATTRIBUTED HERE. INCL FORMER EO #4.

Owner/Manager: UNKNOWN

Cirsium crassicaule

Element Code: PDAST2E0U0

slough thistle

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 1B.1, BLM_S-Sensitive			
Habitat:	**General:**	CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.			
	Micro:	SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-95 M.			

Occurrence No.	2	**Map Index:** 24860	**EO Index:** 6754	**Element Last Seen:**	1933-07-20
Occ. Rank:	None		**Presence:** Possibly Extirpated	**Site Last Seen:**	1974-07-18
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2014-04-25

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.81005 / -121.31942	**Accuracy:**	1 mile
UTM:	Zone-10 N4186070 E647935	**Elevation (ft):**	10
PLSS:	T01S, R06E, Sec. 33 (M)	**Acres:**	0.0

Location: 2 MILES NORTHEAST OF LATHROP BRIDGE ALONG SAN JOAQUIN RIVER.

Detailed Location: MAPPED NEAR SAN JOAQUIN RIVER-OLD RIVER CONFLUENCE.

Ecological: IN SHALLOW WATER OF CANAL.

General: SPECIES LAST SEEN IN THIS AREA IN 1933. SEARCHED FOR IN 1974 BUT NOT FOUND. HISTORIC COLLECTIONS FROM "NEAR LATHROP", "LATHROP", AND "BETWEEN BANTA AND LATHROP" ARE ATTIBUTED TO THIS OCCURRENCE.

Owner/Manager: UNKNOWN

Trichocoronis wrightii var. wrightii

Element Code: PDAST9F031

Wright's trichocoronis

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4T3
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 2B.1			
Habitat:	**General:**	MARSHES AND SWAMPS, RIPARIAN FOREST, MEADOWS AND SEEPS, VERNAL POOLS.			
	Micro:	MUD FLATS OF VERNAL LAKES, DRYING RIVER BEDS, ALKALI MEADOWS. 5-435 M.			

Occurrence No.	6	**Map Index:** 24681	**EO Index:** 6904	**Element Last Seen:**	1914-09-28
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1914-09-28
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2020-09-17

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.78548 / -121.30651	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4183364 E649121	**Elevation (ft):**	20
PLSS:	T02S, R06E, Sec. 03 (M)	**Acres:**	0.0

Location: BRIDGE ACROSS SAN JOAQUIN RIVER NEAR LATHROP.

Detailed Location: MAPPED BY CNDDB AS BEST GUESS WHERE I-5 CROSSES SAN JOAQUIN RIVER, JUST SOUTH OF LATHROP.

Ecological: IN MUD.

General: SITE BASED ON HISTORIC COLLECTIONS FROM 1892, 1901, AND 1914. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT.

Owner/Manager: UNKNOWN

Tropidocarpum capparideum **Element Code:** PDBRA2R010

caper-fruited tropidocarpum

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive			
Habitat:	**General:**	VALLEY AND FOOTHILL GRASSLAND.			
	Micro:	ALKALINE CLAY. 0-360 M.			

Occurrence No.	26	**Map Index:** B6947	**EO Index:** 120012	**Element Last Seen:**	1881-04-23
Occ. Rank:	None		**Presence:** Possibly Extirpated	**Site Last Seen:**	1881-04-23
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2021-02-17

Quad Summary: Lathrop (3712173)

County Summary: San Joaquin

Lat/Long:	37.82131 / -121.27607	**Accuracy:**	1 mile
UTM:	Zone-10 N4187390 E651729	**Elevation (ft):**	
PLSS:	T01S, R06E, Sec. 26 (M)	**Acres:**	1987.0

Location: LATHROP.

Detailed Location: EXACT LOCATION UNKNOWN, MAPPED BY CNDDB IN THE GENERAL VICINITY OF LATHROP.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1881 COLLECTION BY LEMMON. AREA HAS EXPERIENCED SIGNIFICANT HABITAT ALTERATION SINCE COLLECTION WAS MADE; POSSIBLY EXTIRPATED.

Owner/Manager: UNKNOWN

7.3 Appendix C: CHRIS Record Search Results

Prepared by Central California Information Center dated 1/10/25 (Record Search File Number: 13182L).

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, Mono, San Joaquin, Stanislaus & Tuolumne Counties

Date: 1/10/2025

Records Search File #: 13182L
Project: Wawona Apartments, 2005, 2019, & 2027 Wawona Street, Manteca

Isaiah Medina, Assistant Planner
Precision Civil Engineering, Inc.
1234 "O" Street
Fresno, CA 93271
559-449-4500 imedina@precisioneng.net

We have conducted a non-confidential extended records search as per your request for the above-referenced project area located on the Manteca USGS 7.5-minute quadrangle map in San Joaquin County.

Search of our files includes review of our maps for the specific project area and the immediate vicinity of the project area, and review of the following:

National Register of Historic Places (NRHP)
California Register of Historical Resources (CRHR)
California Inventory of Historic Resources (1976)
California Historical Landmarks
California Points of Historical Interest listing
Office of Historic Preservation Built Environment Resource Directory (BERD) and the Archaeological Resources Directory (ARD)
Survey of Surveys (1989)
Caltrans State and Local Bridges Inventory
General Land Office Plats
Other pertinent historic data available at the CCaIC for each specific county

The following details the results of the records search:

Prehistoric or historic resources within the project area:

- There are no formally recorded prehistoric or historic archaeological resources or historic buildings or structures within the project area.

- The General Land Office survey plat for T2S R7E (dated 1855) shows the SW ¼ of the NW ¼ of Section 6 as a 34.72-acre parcel.

- The Map of the County of San Joaquin (dated 1883) shows James B. Carlon as the

landowner in the NW ¼ of Section 6, T2S R7E, Castoria Township.

- The 1915 edition of the Lathrop USGS quadrangle shows the alignment of "Durham Ferry Road", aka S. Airport Way west of the project.

- The 1952 edition of the Lathrop USGS quadrangle also shows Durham Ferry Road and the alignment of Wawona Street.

Prehistoric or historic resources within the immediate vicinity of the project area: There are two recorded historical buildings immediately west of the project area:

P-39-005419 892 S. Airport Way, Minimal Traditional Style, Single Family Property, construction date 1950

P-39-005420 926 S. Airport Way, Minimal Traditional Style, Single Family Property, construction date 1947

Both these properties have been evaluated with a National Register of Historic Places (NRHP) status rating of "6Z", found ineligible for the NRHP, California Register of Historical Resources or for local designation through survey evaluation for an investigation conducted adjacent to the project area, and reported upon in the document referenced below:

Vallaire, K., Sanchez, R., and Falke, M. (LSA for the City of Manteca)
2018 *Cultural Resources Study, Airport Way Widening Project, Manteca, San Joaquin County, California.*
CCaIC Report SJ-09252

Note: These buildings are not listed in the Office of Historic Preservation Built Environment Resource Directory (BERD).

Resources that are known to have value to local cultural groups: None has been formally reported to the Information Center.

Previous investigations within the project area: No project-specific survey has been formally reported to the Information Center. The project area does fall within the boundary of several overview/literature reviews, referenced as follows:

Windmiller, Ric and Donald Napoli (Ric Windmiller, Consulting Archaeologist and Donald Napoli, of Historic Preservation Planning; for Wade Associates, Sacramento, CA)
2002 *City of Manteca--General Plan Update, Background Reports: Archaeological Resources, Historical Resources, Records Search Results.*
CCaIC Report SJ-04786

Windmiller, R. and D. Napoli
2003 *Airport Way-Yosemite Avenue Specific Plan, Background Reports: Archaeological Resources, Historical Resources, Records Search Results.* **CCaIC Report SJ-04896**

Napoli, D. (Historic Preservation Planning)
2003 *Airport Way-Yosemite Avenue Specific Plan; Background Report on Historical Resources.* **CaCIC Report SJ-04896A**

Windmiller, R. (Consulting Archaeologist)
2003 *Airport Way-Yosemite Avenue Specific Plan; Appendix: Records Search Results Archaeological and Historic Resources.* **CCaIC Report SJ-04896B**

Shideler, H. (San Joaquin County Historical Society)
1988 *Manteca: City in Transition.* **CCaIC Report SJ-04982**

Recommendations/Comments:

Please be advised that a historical resource is defined as a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 45 years old. Since the project area has not been subject to previous investigations, there may be unidentified features involved in your project that are 45 years or older and considered as historical resources requiring further study and evaluation by a qualified professional of the appropriate discipline.

If the current project does not include ground disturbance, further study for archaeological resources is not recommended at this time. If ground disturbance is considered a part of the current project, we recommend further review for the possibility of identifying prehistoric or historic-era archaeological resources.

If the proposed project contains buildings or structures that meet the minimum age requirement (45 years in age or older) it is recommended that the resource/s be assessed by a professional familiar with architecture and history of the county. Review of the available historic building/structure data has included only those sources listed above and should not be considered comprehensive.

If at any time you might require the services of a qualified professional the Statewide Referral List for Historical Resources Consultants is posted for your use on the internet at http://chrisinfo.org

If archaeological resources are encountered during project-related activities**,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the

situation and provided appropriate recommendations. Project personnel should not collect cultural resources.

If human remains are discovered, California Health and Safety Code Section 7050.5 requires you to protect the discovery and notify the county coroner, who will determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the Native American Heritage Commission (NAHC). California Public Resources Code Section 5097.98 authorizes the NAHC to appoint a Most Likely Descendant (MLD) who will make recommendations for the treatment of the discovery.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the State Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

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.

We thank you for contacting this office regarding historical resource preservation. Please let us know when we can be of further service. Thank you for sending the *Access Agreement Short Form.* **Note:** Billing will be transmitted separately via email from the Financial Services office ($150.00), payable within 60 days of receipt of the invoice.

If you wish to include payment by Credit Card, you must wait to receive the official invoice from Financial Services so that you can reference the CMP # (Invoice Number), and then contact the link below:
https://commerce.cashnet.com/ANTHROPOLOGY

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: ARBilling@csustan.edu, CSU Stanislaus Financial Services

7.4 Appendix D: NAHC Correspondence

Correspondence from NAHC received 1/14/25.

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Sara Dutschke
Miwok

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of Luiseño Indians

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,

January 14, 2025

Isaiah Medina
Precision Civil Engineering

Via Email to: imedina@precisioneng.net

Re: Native American Consultation, Pursuant to Senate Bill 18 (SB18), Government Codes §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, Wawona Apartments Project, San Joaquin County

Dear Mr. Medina:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties or projects.

Government Codes §65352.3 and §65352.4 require local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to cultural places when creating or amending General Plans, Specific Plans and Community Plans.

Public Resources Codes §21080.3.1 and §21080.3.2 requires public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to tribal cultural resources as defined, for California Environmental Quality Act (CEQA) projects.

The law does not preclude local governments and agencies from initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction. The NAHC believes that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

Best practice for the AB52 process and in accordance with Public Resources Code §21080.3.1(d), is to do the following:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The NAHC also recommends, but does not require that lead agencies include in their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential affect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

    - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE, such as known archaeological sites;
    - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
    - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the APE; and
    - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.

3. The result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event, that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address:

Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

7.5 Appendix E: Acoustical Analysis

Prepared by WJV Acoustics dated 2/13/25.

ACOUSTICAL ANALYSIS

WAWONA APARTMENTS
MANTECA, CALIFORNIA

WJVA Project No. 25-02

PREPARED FOR

PRECISION ENGINEERING
1234 O STREET
FRESNO, CALIFORNIA 93721

PREPARED BY

WJV ACOUSTICS, INC.
VISALIA, CALIFORNIA

wjv acoustics

FEBRUARY 13, 2025

INTRODUCTION

MCR Engineering (Applicant) on behalf of Angraj and Baltej Chahal (Owner/Developer) requests General Plan Amendment (GPA) 24-76, Rezone (REZ) 24-79, Commercial Site Plan Review (SPA) 24-76, Minor Zone Modification (MZM) 24-##, and Lot Line Adjustment (LLA) 24-78 to facilitate the development of a 44-unit multi-family residential development and related on/off-site improvements (e.g., parking, landscaping, curb, gutter, and sidewalk, etc.) on three (3) parcels identified by the San Joaquin County Assessor as APNs 222-100-15 (0.20 acres), 222-100-14 (0.22 acres), and 222-100-09 (1.25 acres), totaling approximately 1.67 acres located on the north side of Wawona Street between Airport Way and Fishback Road at 2005, 2019, and 2027 Wawona Street, Manteca, CA 95336.

GPA 24-76 proposes to amend the General Plan land use designation from GC (General Commercial) and VLDR (Very Low Density Residential) to HDR (High Density Residential) and REZ 24-79 proposes to amend the zoning district from CG (General Commercial) and R-E (Residential Estate) to R-3 (Multiple-Family Dwelling). SPA 24-76 would facilitate the development of the 44-unit multi-family residential development including site layout, pedestrian access, vehicular circulation, landscaping, utilities, and stormwater management, in accordance with the City's design guidelines and development standards. MZM 24-## would allow a reduction in the landscape buffer requirement along the west and south property lines to a five (5) foot minimum rather than a 10-foot minimum. LLA 24-78 proposes a merger of the three (3) parcels, APNs 222-100-15, 222-100-14, and 222-100-09, into one (1) parcel that totals approximately 1.67 acres. The site plan is provided as Figure 1.

Appendix A provides a description of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported are in A-weighted decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighting, as it provides a high degree of correlation with human annoyance and health effects. Appendix B provides typical A-weighted sound levels for common noise sources.

NOISE EXPOSURE CRITERIA

General Plan-

The City of Manteca (Draft) 2043 General Plan provides noise level criteria for land use compatibility for both transportation and non-transportation noise sources. The General Plan sets noise compatibility standards for transportation noise sources in terms of the Day-Night Average Level (L_{dn}). The L_{dn} represents the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The L_{dn} represents cumulative exposure to noise over an extended period of time and are therefore calculated based upon *annual average* conditions. Table I provides the General Plan noise level standards for transportation noise sources.

TABLE I

CITY OF MANTECA GENERAL PLAN NOISE LEVEL STANDARDS
MAXIMUM ALLOWABLE NOISE EXPOSURE FROM MOBILE NOISE SOURCES

Land Use[1]	Outdoor Activity Areas[2,3]	Interior Spaces	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq} dB[4]
Residential	60	45	---
Motels/Hotels	65	45	---
Mixed-Use	65	45	---
Hospitals, Nursing Homes	60	45	--
Theaters, Auditoriums	--	---	35
Churches	60	---	40
Office Buildings	65	---	45
Schools, Libraries, Museums	70	---	45
Playgrounds, Neighborhood Parks	70	---	--
Industrial	75	---	45
Golf Courses, Water Recreation	70	---	--

1 Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.

2 Outdoor activity areas for residential development are considered to be the back yard patios or decks of single family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.

3 In areas where it is not possible to reduce exterior noise levels to achieve the outdoor activity area standard w using a practical application of the best noise-reduction technology, an increase of up to 5 Ldn over the standard will be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are in compliance with this table

4Determined for a typical worst-case hour during periods of use.

Source: City of Manteca Draft General Plan

TABLE II

CITY OF MANTECA GENERAL PLAN NOISE LEVEL STANDARDS PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES, INCLUDING AFFECTED PROJECTS[1,2,3,4]

Noise Level Descriptor	Daytime 7 am to 10 pm	Nighttime 10 pm to 7 am
Hourly Leq, dBA	55	45

1 Each of the noise levels specified above should be lowered by 5 dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered to be particularly annoying and are a primary source of noise complaints.

2 No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels.

3 Stationary noise sources which are typically of concern include, but are not limited to, the following: HVAC Systems Cooling Towers/Evaporative Condensers Pump Stations Lift Stations Emergency Generators Boilers Steam Valves Steam Turbines Generators Fans Air Compressors Heavy Equipment Conveyor Systems Transformers Pile Drivers Grinders Drill Rigs Gas or Diesel Motors Welders Cutting Equipment Outdoor Speakers Blowers

4The types of uses which may typically produce the noise sources described above include but are not limited to: industrial facilities, pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.

Source: City of Manteca Draft General Plan

Construction Noise and Vibration -

Section 17.58.050 (Noise Standards) of The City of Manteca Code of Ordinances provides hourly limitations on construction activities, for noise purposes. The following is provided in the City's municipal code:

- *Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.*

Section 17.58.070 (Vibration) of the City of Manteca Code of Ordinances provides some guidance regarding vibration levels within the city.

Uses that generate vibrations that may be considered a public nuisance or hazard on any adjacent property shall be cushioned or isolated to prevent generation of vibrations. Uses shall be operated in compliance with the following provisions:

- *No vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments at the points of measurement specified in Section 17.58.030 (Points of Measurement) of this Chapter, nor shall any vibration produced exceed 0.002g peak at up to 50 CPS frequency, measured at the point of measurement specified in Section 17.58.030 (Points of Measurement) of this Chapter, using either seismic or electronic vibration measuring equipment. Vibrations occurring at higher than 50 CPS frequency of a periodic vibration shall not induce accelerations exceeding 0.001g. Single impulse*

periodic vibrations occurring at an average interval greater than five minutes shall not induce accelerations exceeding 0.01g.

- *Uses, activities, and processes shall not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or which endanger the comfort, repose, health, or peace of residents whose property abuts the property line of the parcel.*

- *Uses shall not generate ground vibration that interferes with the operations of equipment and facilities of adjoining parcels.*

- ***Vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks, trains, and aircraft) are exempt from the provisions of this Section.***

Some additional vibration guidance is provided by the Caltrans Transportation and Construction Vibration Guidance Manual. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table III and Table IV, and are presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

TABLE III

GUIDELINE VIBRATION ANNOYANCE POTENTIAL CRITERIA

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.1
Severe	2.0	0.4

Source: Caltrans

TABLE IV

GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans

PROJECT SITE NOISE EXPOSURE

The project site is in the jurisdiction of the City of Manteca, San Joaquin County, California and comprises three (3) parcels identified by the San Joaquin County Assessor as Assessor Parcel Numbers (APNs) 222-100-15 (0.20 acres), 222-100-14 (0.22 acres), and 222-100-09 (1.25 acres), totaling approximately 1.67 acres located on the north side of Wawona Street between Airport Way and Fishback Road at 2005, 2019, and 2027 Wawona Street, Manteca, CA 95336.

Background Noise Level Measurements

Existing noise sources in the project vicinity include traffic noise from vehicles traveling on Wawona Street and Airport Way, as well as noise associated with rural residential land uses (landscaping activities, construction activities, barking dogs, birds, human voices, etc.), noise associated with nearby commercial/industrial land uses, and occasional aircraft overflights.

Measurements of existing ambient noise levels in the project vicinity were conducted on February 11 & 12, 2025. Long-term (24-hour) ambient noise level measurements were conducted at one (1) location (site LT-1). Ambient noise levels were measured for a period of 24 continuous hours at site LT-1. Site LT-1 was located within the northwest portion of the project site, in the vicinity of rural residential land uses adjacent to the project site. Site LT-1 was predominantly exposed to noise sources typical of a rural residential environment, including traffic on local roadways (Wawona Street and Airport Way), HVAC units, construction and landscaping activities, barking dogs, birds, human voices, etc. The location of the 24-hour ambient noise monitoring site is provided on Figure 2.

Noise monitoring equipment consisted of a Larson-Davis Laboratories Model LDL-820 sound level analyzer equipped with a B&K Type 4176 1/2" microphone. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meter was calibrated with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements.

Measured hourly energy average noise levels (L_{eq}) at site LT-1 ranged from a low of 40.2 dB between 2:00 a.m. and 3:00 a.m. to a high of 54.9 dBA between 11:00 a.m. and noon. Hourly maximum (L_{max}) noise levels at site LT-1 ranged from 55.0 to 84.4 dBA. Residual noise levels at the monitoring site, as defined by the L_{90}, ranged from 33.3 to 46.0 dBA. The L_{90} is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The L_{90} is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft, and other local noise sources. The measured L_{dn} value at site LT-1 was 54.5 dB L_{dn}. Figure 3 graphically depicts hourly variations in ambient noise levels at site LT-1. Figure 4 provides a photograph of measurement site LT-1.

Additionally, short-term (15-minute) ambient noise level measurements were conducted at three (3) locations (Sites ST-1, ST-2, and ST-3). Two (2) individual measurements were taken at each of the three short-term sites to quantify ambient noise levels in the morning and afternoon hours. The locations of the three short-term noise ambient measurement sites are provided on

Figure 2. A photograph of the three short-term ambient noise measurement sites ST-1, ST-2, and ST-3 are provided as Figure 5, Figure 6, and Figure 7, respectively.

Short-term noise measurements were conducted for 15-minute periods at each of the three sites. Site ST-1 was located at the northwest corner of the project site boundary. Site ST-2 was located at the southeast corner of the project site boundary, near the project site entrance access point and in the vicinity of existing rural residential land uses along Wawona Street. Site ST-3 was located west of the project site, in the vicinity of existing rural residential land uses along Airport Way.

Noise sources observed at sites ST-1 include traffic noise associated with Airport Way and Wawona Street, as well as noise associated with rural residential land uses, and occasional aircraft overflights. Site ST-2 was predominantly impacted by traffic noise associated with Wawona Street, and Site ST-3 was predominantly impacted by traffic noise associated with Airport Way.

Table V summarizes short-term noise measurement results. The noise measurement data included energy average (L_{eq}) maximum (L_{max}) as well as five (5) individual statistical parameters. Observations were made of the dominant noise sources affecting the measurements. The statistical parameters describe the percent of time a noise level was exceeded during the measurement period. For instance, the L_{90} describes the noise level exceeded 90 percent of the time during the measurement period, and is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft, and other local noise sources.

TABLE V

SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA
WAWONA APARTMENTS, MANTECA
FEBRUARY 11 & 12, 2025

Site	Time	A-Weighted Decibels, dBA							Sources
		L_{eq}	L_{max}	L_2	L_8	L_{25}	L_{50}	L_{90}	
ST-1	9:45 a.m.	44.9	55.5	47.3	46.3	45.5	44.7	42.9	TR, B, D, AC
ST-1	4:00 p.m.	46.2	63.1	49.0	47.8	46.6	45.1	43.0	TR, AC, L
ST-2	10:05 a.m.	57.5	75.2	68.0	63.9	55.3	49.2	46.1	TR, AC
ST-2	4:20 p.m.	60.2	79.4	69.2	65.1	57.8	51.6	47.5	TR
ST-3	10:25 a.m.	68.3	79.6	76.0	73.2	69.6	63.3	48.2	TR, B, D
ST-3	4:45 p.m.	69.0	81.4	76.5	74.8	70.2	64.8	51.0	TR, D

TR: Traffic AC: Aircraft AG: Agricultural Activities C: Construction Activities B: Birds D: Barking Dogs V:Voices L: Landscaping Activities
Source: WJV Acoustics, Inc.

Exterior Noise Compliance:

The City of Manteca has established an exterior noise compatibility standard of 60 dB L_{dn}, in outdoor activity areas of residential land uses. Outdoor activity areas are typically considered to be backyards of single-family residential land uses and individual balconies, decks and patios as well as outdoor common use spaces for multi-family residential land uses.

The results of the ambient noise survey indicate that project site noise exposure is approximately 55 dB L_{dn}, in the vicinity of the proposed apartment building (and any individual unit balconies, patios or decks). Such levels do not exceed the City of Manteca exterior noise compatibility standard of 60 dB L_{dn} for residential land uses, as described above in Table I. Mitigation measures are therefore not required for exterior noise compliance at the proposed multi-family residential development.

The project would also include two (2) outdoor common use area, indicated on the site plan (Figure 1) as "Trellis at Community Open Space". One common use area is located in the northeast portion of the project site, where noise levels would be expected to be similar as those measured at the LT-1 24-hour ambient nose measurement site, approximately 55 dB L_{dn}.

The second outdoor common use area is located near the southern portion of the overall project area, in the vicinity of the proposed office. This outdoor activity area would be located approximately 70 feet from the centerline of Wawona Street. WJVA utilized FHWA traffic model (discussed in detail below in the following section on Project-Related Traffic Noise) to calculated noise exposure within this common use outdoor activity area. Using the FHWA model, and traffic data provided by the project traffic engineer, WJVA calculated exterior noise exposure to be approximately 52 dB L_{dn} at this common use outdoor area. Such levels do not exceed the City of Manteca exterior noise compatibility standard of 60 dB L_{dn}. Mitigation measures are therefore not required for exterior noise compliance at the proposed multi-family residential development.

Interior Noise Compliance:

The City of Manteca interior noise level standard is 45 dB L_{dn}. Exterior noise exposure levels within the proposed residential development were determined to be approximately 55 dB L_{dn}. This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 10 dB (55-45=10).

A specific analysis of interior noise levels was not performed. However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB L_{dn} interior standard at all proposed lots. Requiring that it be possible for windows and doors to remain closed for sound insulation means that air conditioning or mechanical ventilation will be required.

PROJECT-RELATED INCREASES IN TRAFFIC NOISE EXPOSURE

WJVA utilized the FHWA Traffic Noise Model to quantify expected project-related increases in traffic noise exposure along roadways in the project vicinity. The FHWA Model is a standard analytical method used by state and local agencies for roadway traffic noise prediction. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ±1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic noise exposure levels for Existing and Existing Plus Project traffic conditions were calculated based upon the FHWA Model and traffic volumes provided by the project traffic engineer, Wood Rodgers. The day/night distribution of traffic and the percentages of used for modeling were estimated based upon previous studies WJVA has conducted along similar roadways as such data was not available from governmental sources. The Noise modeling assumptions used to calculate project traffic noise are provided as Appendix C.

Project-related significant impacts would occur if an increase in traffic noise associated with the project would result in noise levels exceeding the City's applicable noise level standards at the location(s) of sensitive receptors. For the purpose of this analysis a significant impact is also assumed to occur if traffic noise levels were to increase by 3 dB at sensitive receptor locations where noise levels already exceed the City's applicable noise level standards (without the project), as 3 dB generally represents the threshold of perception in change for the human ear. This analysis of project traffic noise focuses on residential land uses, as they represent the most restrictive noise level criteria by land use type provided in the General Plan.

The City's exterior noise level standard for residential land uses is 60 dB L_{dn}. Traffic noise was modeled at six (6) receptor locations. The six modeled receptors are located at roadway setback distances representative of the sensitive receptors (residences) along each analyzed roadway segment. The modeled traffic noise receptors are described below and provided graphically as Figure 8.

- R-1: Residence located approximately 150 feet from the centerline of Airport Wy.
- R-2: Residence located approximately 100 feet from the centerline of Airport Wy.
- R-3: Residence located approximately 95 feet from the centerline of Wawona St.
- R-4: Residence located approximately 85 feet from the centerline of Fishback Rd.
- R-5: Residence located approximately 80 feet from the centerline of Fishback Rd
- R-6: Residence located approximately 70 feet from the centerline of Wawona St.

Table VI provides Existing and Existing Plus Project traffic noise exposure levels at the six analyzed receptor locations. Noise levels described in Table VI do not include any acoustic shielding that may be provided by existing buildings, fences, or walls, and therefore represents a worst-case assessment of traffic noise exposure levels.

TABLE VI

PROJECT-RELATED INCREASES IN TRAFFIC NOISE, dB, L_{dn}
WAWONA APARTMENTS, MANTECA
EXISTING CONDITIONS

Modeled Receptor	Existing	Existing Plus Project	Change (Maximum)	Significant Impact?
R-1	59	59	0	No
R-2	62	62	0	No
R-3	49	50	+1	No
R-4	51	51	0	No
R-5	51	51	0	No
R-6	51	51	0	No

Source: WJV Acoustics, Inc.
Wood Rodgers

Reference to Table VI indicates that project-related traffic increases would not result in noise levels at any sensitive receptors to exceed the City's noise level standard, nor result in an increase of 3 dB in any sensitive receptor locations where noise levels already exceed the City's noise level standard without the implementation of the project.

CONSTRUCTION NOISE AND VIBRATION

Construction noise would occur at various locations within the project site through the buildout period. Existing sensitive receptors could be located as close as 100 feet from construction activities. Table VII provides typical construction-related noise levels at distances of 50, 100 feet, 200 feet, and 300 feet.

Construction noise is not considered to be a significant impact if construction is limited to the allowed hours and construction equipment is adequately maintained and muffled. Extraordinary noise-producing activities (e.g., pile driving) are not anticipated. The City of Manteca limits hours of construction activities to occur between 7:00 a.m. and 7:00 p.m., daily. A noise impact could occur if construction activities were to occur outside the allowable hours of 7:00 a.m. to 7:00 p.m.

TABLE VII

TYPICAL CONSTRUCTION EQUIPMENT MAXIMUM NOISE LEVELS, dBA

Type of Equipment	50 Ft.	100 Ft.	200 Ft.	300 Ft.
Concrete Saw	90	84	78	74
Crane	81	75	69	65
Excavator	81	75	69	65
Front End Loader	79	73	67	63
Jackhammer	89	83	77	73
Paver	77	71	65	61
Pneumatic Tools	85	79	73	69
Dozer	81	76	70	66
Rollers	80	74	68	64
Trucks	86	80	72	70
Pumps	80	74	68	64
Scrapers	87	81	75	71
Portable Generators	81	74	68	64
Backhoe	86	80	74	70
Grader	86	80	74	70

Source: FHWA
Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman, 1987

The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Vibration from construction activities could be detected at the closest sensitive land uses, especially during movements by heavy equipment or loaded trucks and during some paving activities. Typical vibration levels at distances of 25, 100 feet and 300 feet are summarized by Table VIII. These levels would not be

expected to exceed any significant threshold levels for annoyance or damage, as provided above in Table III and Table IV.

TABLE VIII

TYPICAL VIBRATION LEVELS DURING CONSTRUCTION

	PPV (in/sec)		
Equipment	**@ 25´**	**@ 100´**	**@ 300´**
Bulldozer (Large)	0.089	0.019	0.006
Bulldozer (Small)	0.003	0.0006	0.0002
Loaded Truck	0.076	0.017	0.005
Jackhammer	0.035	0.008	0.002
Vibratory Roller	0.210	0.046	0.013
Caisson Drilling	0.089	0.019	0.006

Source: *Caltrans*

CONCLUSIONS AND RECOMMENDATIONS

The proposed 44-unit multi-family residential development will comply with all City of Manteca exterior and interior noise level standards, provided the following measures are incorporated into final project design.

- Mechanical ventilation or air conditioning must be provided for all homes so that windows and doors can remain closed for sound insulation purposes.

The conclusions and recommendations of this acoustical analysis are based upon the best information known to WJV Acoustics Inc. (WJVA) at the time the analysis was prepared concerning the proposed lot layout plan, project site elevation, traffic volumes and roadway configurations. Any significant changes in these factors will require a reevaluation of the findings of this report. Additionally, any significant future changes in motor vehicle technology, noise regulations or other factors beyond WJVA's control may result in long-term noise results different from those described by this analysis.

Respectfully submitted,

Walter J. Van Groningen
President

WJV:wjv

FIGURE 1: SITE PLAN

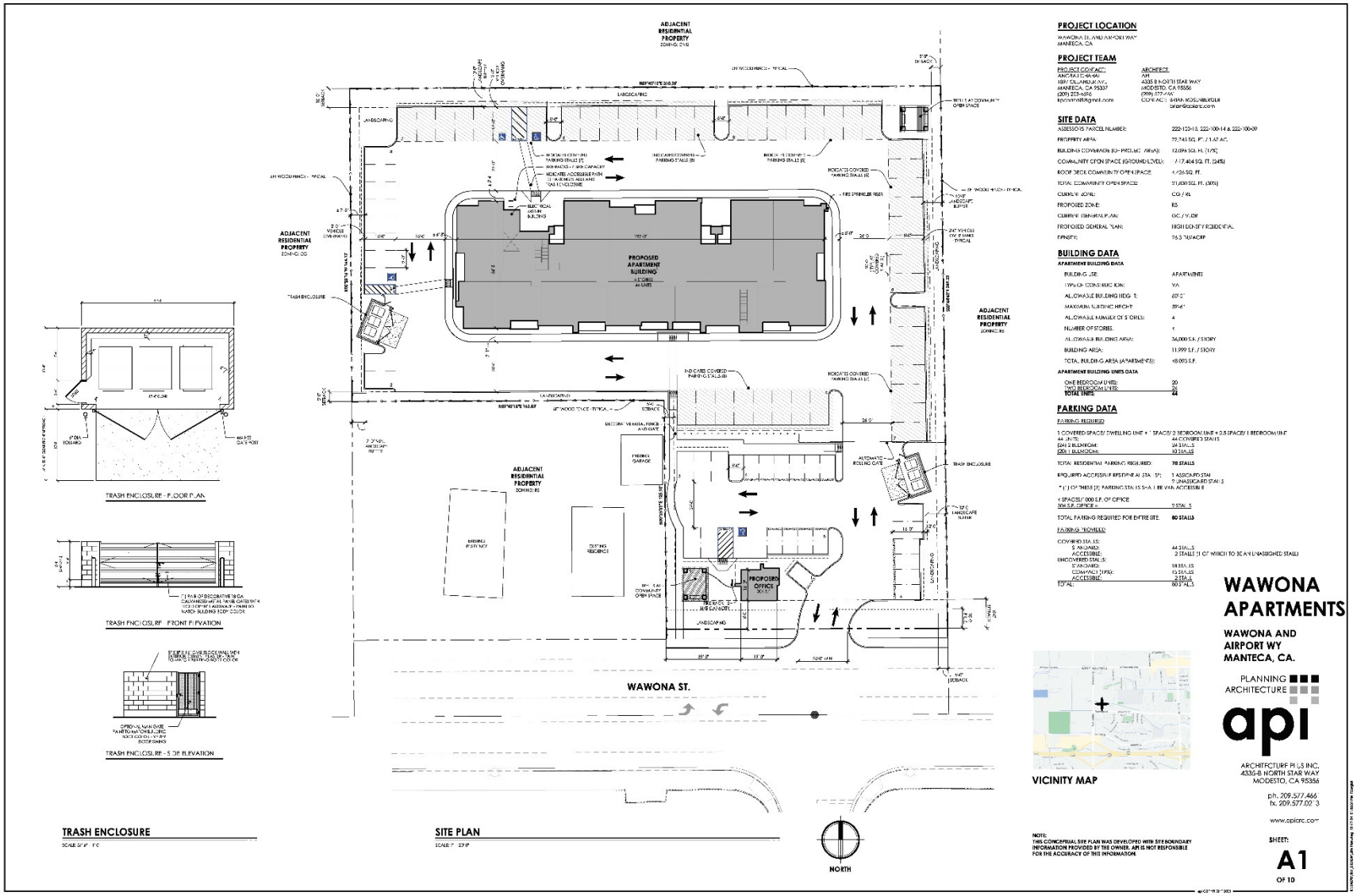


FIGURE 2: PROJECT SITE VICINITY AND NOISE MEASUREMENT LOCATIONS

FIGURE 3: 24-HOUR NOISE LEVELS AT SITE LT-1

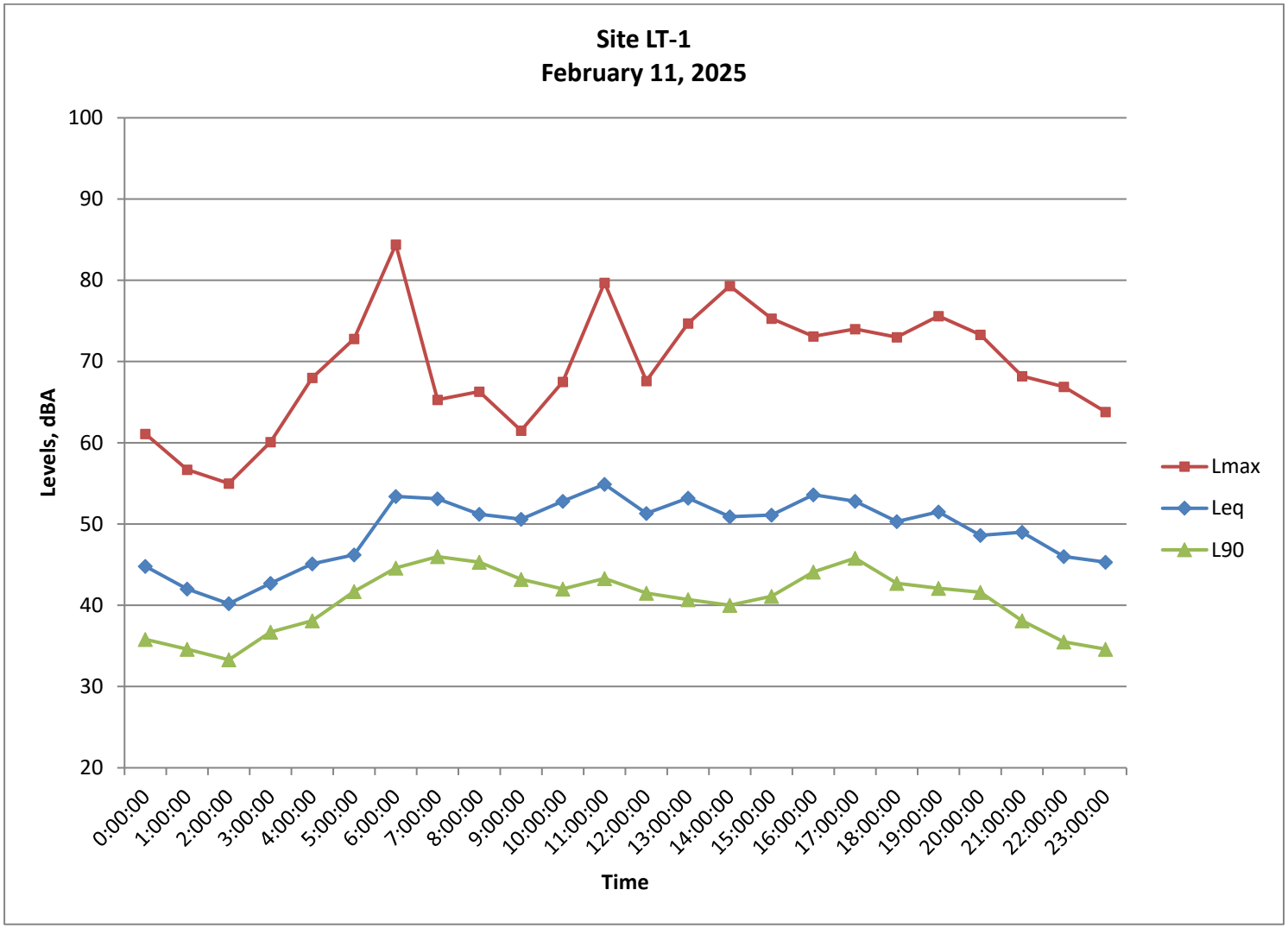


FIGURE 4: AMBIENT NOISE MEASUREMENT SITE LT-1

FIGURE 5: AMBIENT NOISE MEASUREMENT SITE ST-1

FIGURE 6: AMBIENT NOISE MEASUREMENT SITE ST-2

FIGURE 7: AMBIENT NOISE MEASUREMENT SITE ST-3

FIGURE 8: MODELED TRAFFIC NOISE RECEPTOR LOCAITONS

APPENDIX A

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

DNL/L_{dn}: Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

L_{eq}: Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

NOTE: The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.

L_{max}: The maximum noise level recorded during a noise event.

L_n: The sound level exceeded "n" percent of the time during a sample interval (L_{90}, L_{50}, L_{10}, etc.). For example, L_{10} equals the level exceeded 10 percent of the time.

A-2

ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS: Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

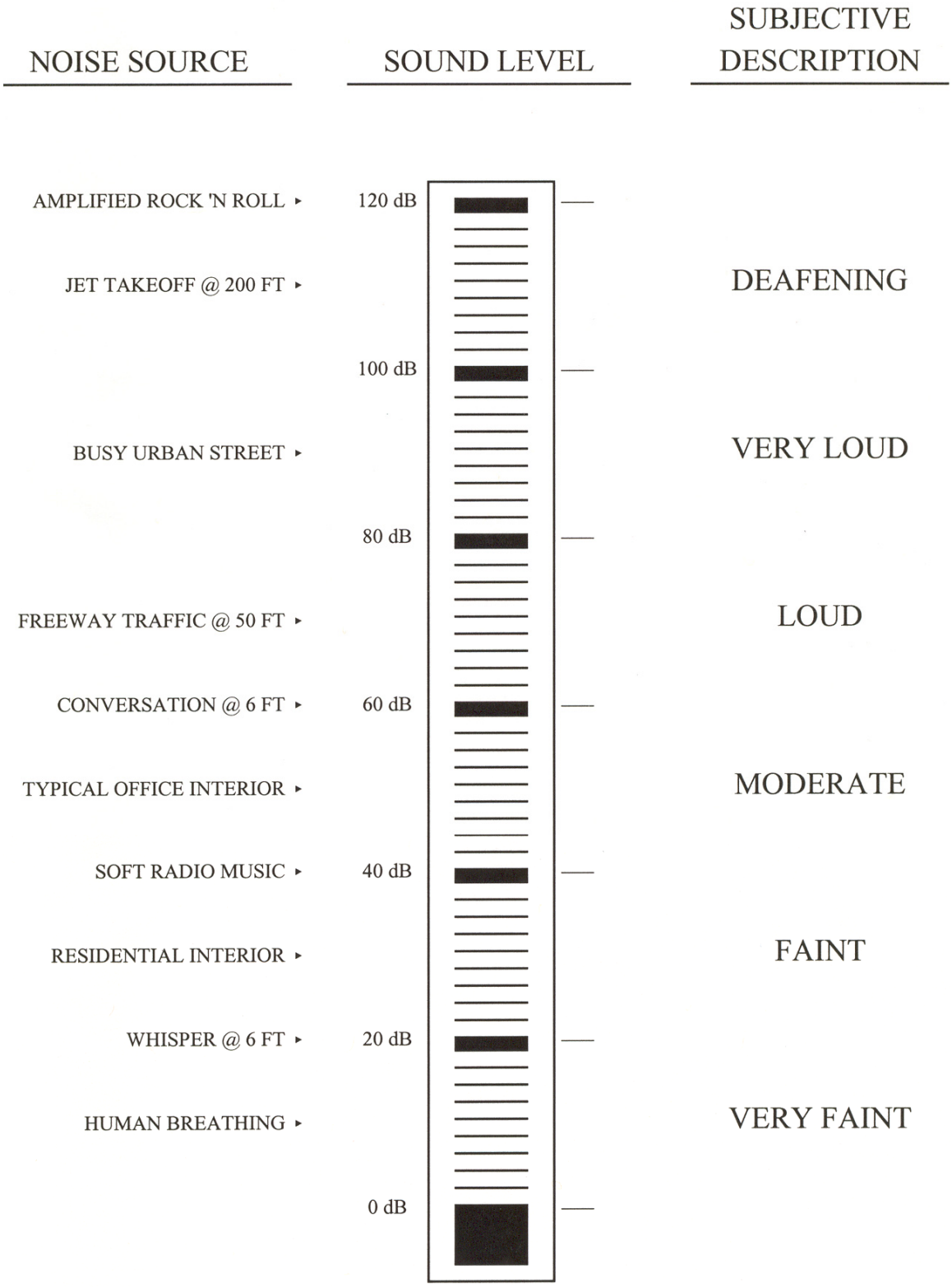
NOISE LEVEL REDUCTION (NLR): The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL: Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL: The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

SOUND TRANSMISSION CLASS (STC): The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B
EXAMPLES OF SOUND LEVELS



APPENDIX C

TRAFFIC NOISE MODELING CALCULATIONS

WJV Acoustics, Inc
FHWA-RD-77-108
Calculation Sheets
February 13, 2025

Project #:	25-02 Wawona Apartment
Description:	Existing
Ldn/Cnel:	Ldn
Site Type:	Soft

Contour Levels (dB)	60	65	70	75

Segment	Roadway Name	Segment Description	ADT	%Day	%Evening	%Night	%Med	%Heavy	Speed	Distance	Offset
1	Airport Way	R-1	12030	90		10	2	1	40	150	
2	Airport Way	R-2	13380	90		10	2	1	40	100	
3	Wawona Street	R-3	1930	90		10	2	1	25	95	
4	Fishback Road	R-4	2300	90		10	2	1	25	85	
5	Fishback Road	R-5	2180	90		10	2	1	25	80	
6	Wawona Street	R-6	1940	90		10	2	1	25	70	

WJV Acoustics, Inc
FHWA-RD-77-108
Calculation Sheets
February 13, 2025

Project #:	25-02 Wawona Apartment
Description:	Existing + Project
Ldn/Cnel:	Ldn
Site Type:	Soft

Contour Levels (dB) 60 65 70 75

Segment	Roadway Name	Segment Description	ADT	%Day	%Evening	%Night	%Med	%Heavy	Speed	Distance	Offset
1	Airport Way	R-1	12070	90		10	2	1	40	150	
2	Airport Way	R-2	13570	90		10	2	1	40	100	
3	Wawona Street	R-3	2130	90		10	2	1	25	95	
4	Fishback Road	R-4	2380	90		10	2	1	25	85	
5	Fishback Road	R-5	2220	90		10	2	1	25	80	
6	Wawona Street	R-6	2040	90		10	2	1	25	70	

7.6 Appendix F: Local Transportation Analysis

Prepared by Wood Rodgers dated 4/9/25.

Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To: Toben Barnum, Associate Planner
City of Manteca – Development Services Department

From: Mario Tambellini, PE, TE
Nicole Scappaticci, PE

Date: April 9, 2025

Subject: **Wawona Apartments Local Transportation Analysis**

INTRODUCTION

This memorandum has been prepared to present the results of a Local Transportation Analysis (LTA) for the proposed Wawona Apartments Project (Project) located in the City of Manteca (City). The Project proposes to develop a 44-unit multifamily housing building.

The purpose of this LTA is to evaluate the Project's on-site and off-site traffic operations, consistent with City Engineering traffic comments on the Project's proposed CEQA Scoping received via email dated December 11, 2024. This LTA includes the following sections:

- Project Description
- Study Facilities and Analysis Scenarios
- Analysis Methodology
- Intersection Operations and Project Trips
- Operational Deficiencies
- Existing Plus Project With Signal Conditions
- Project Access Gate Queueing
- Conclusion

This LTA has been prepared consistent with policies in the *Manteca General Plan Update* (adopted February 2024) and the *Manteca Transportation Impact Analysis Guidelines*.

PROJECT DESCRIPTION

The Project is comprised of three (3) parcels identified by the San Joaquin County Assessor as Assessor Parcel Numbers (APNs) 222-100-15 (0.20 acres), 222-100-14 (0.22 acres), and 222-100-09 (1.25 acres), totaling approximately 1.67 acres located on the north side of Wawona Street between Airport Way and Fishback Road at 2005, 2019, and 2027 Wawona Street, Manteca, CA 95336. The Project would construct 44 multifamily housing units. The Project site currently contains one single-family residential unit that would be removed with development of the Project.

The Project proposes to amend the General Plan land use designation from GC (General Commercial) and VLDR (Very Low Density Residential) to HDR (High Density Residential) and proposes to amend the zoning district from CG (General Commercial) and R-E (Residential Estate) to R-3 (Multiple-Family Dwelling).

The Project would gain access to the surrounding roadway network via a new driveway intersection with Wawona Street, located across from Depot Drive. The Project site plan is included in **Figure 1** and the Project location map is shown in **Figure 2**.

Figure 1. Project Site Plan

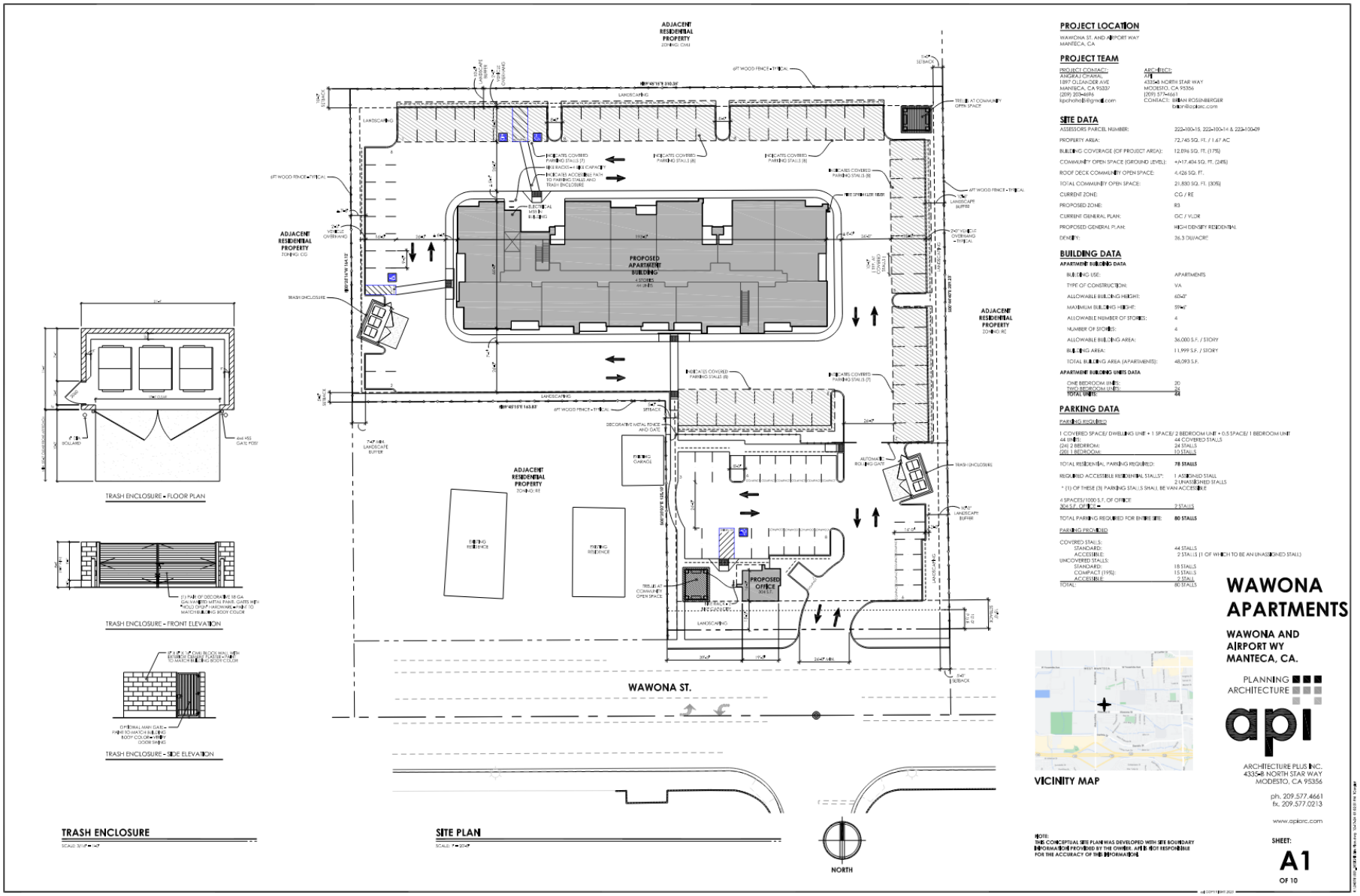


FIGURE 2

PROJECT LOCATION AND STUDY FACILITIES

WAWONA APARTMENTS LTA

MANTECA, CA

APRIL 2025

0 300 600

Feet

NORTH

WOOD RODGERS

STUDY FACILITIES AND ANALYSIS SCENARIOS

Traffic operations analyses were performed under the following scenarios:

- Typical Weekday Scenarios (AM and PM Peak Hour):
    - "Existing" Conditions
    - "Existing Plus Project" Conditions

The following two (2) intersections were included in this analysis:

1. Airport Way & Wawona Street
2. Fishback Road & Wawona Street

The locations of the above study intersections are shown in **Figure 2**.

The Airport Way & Wawona Street intersection was analyzed under an additional scenario referred to as "Existing Plus Project With Signal". This scenario includes trips from the proposed Rotten Robbie fuel station located within the southeast quadrant of the Airport Way & Wawona Street intersection. The Rotten Robbie project has an agreement with the City to construct a traffic signal at the Airport Way & Wawona Street intersection. This scenario was analyzed to confirm that a signalized Airport Way & Wawona Street intersection would operate acceptably with the addition of Project and Rotten Robbie traffic.

ANALYSIS METHODOLOGY

LEVEL OF SERVICE METHODOLOGY

Synchro 12 software and Highway Capacity Manual, 7th Edition (HCM 7th Edition) methodology were used to determine intersection delay and level of service (LOS) operations under all study conditions.

For all-way stop-controlled (AWSC) intersections, the intersection delays and LOS reported are the average values for the whole intersection. For two-way stop-controlled (TWSC) intersections, the worst approach/movement delay and LOS are reported. The delay-based HCM 7th Edition LOS criteria for different types of intersection controls are outlined in **Table 1**.

Table 1. HCM 7th Edition Intersection LOS Thresholds

Level of Service	Description	Intersection Control Delay (seconds/vehicle)
		Unsignalized
A	Free-flow conditions with negligible to minimal delays.	delay ≤ 10.0
B	Good progression with slight delays.	10.0 < delay ≤ 15.0
C	Relatively higher delays.	15.0 < delay ≤ 25.0
D	Somewhat congested conditions with longer but tolerable delays.	25.0 < delay ≤ 35.0
E	Congested conditions with significant delays.	35.0 < delay ≤ 50.0
F	Jammed or grid-lock type operating conditions.	delay > 50.0
Source: HCM 7th Edition Exhibit 19-8 and 20-2.		

HCM 7th Edition reports were generated to determine the delay and LOS at the study intersections in *Synchro 12* software.

Signal Warrants

California Manual on Uniform Traffic Control Devices (CA MUTCD) Peak Hour Signal Warrant #3 was used to determine if a traffic signal is warranted at the study intersections.

LEVEL OF SERVICE CRITERIA

The City's General Plan Circulation Element Policy C-1.2 states the following:

"To the extent feasible, strive for a vehicular LOS of D or better during weekday AM and PM peak hours at all streets and intersections, except in the Downtown area or in accordance with Policy C-1.3."

Therefore, the minimum acceptable LOS for the study intersections is considered to be LOS D.

INTERSECTION OPERATIONS AND PROJECT TRIPS

EXISTING CONDITIONS

Existing Traffic Counts

Weekday AM and PM peak hour turning movement counts were collected at the two study intersections, as well as the intersection of Depot Drive & Wawona Street, on Thursday, January 9, 2025, between 7:00 AM to 9:00 AM and between 4:00 PM to 6:00 PM. 24-hr Average daily traffic (ADT) data was collected on Wawona Street between Airport Way and Fishback Road on Thursday, January 9, 2025. ADT on Wawona Street was shown to be 2,676. Traffic data count sheets are included in **Attachment A**.

Existing conditions lane geometrics and control are presented in **Figure 3** and Existing conditions traffic volumes are shown in **Figure 4**.

Existing Intersection Level of Service

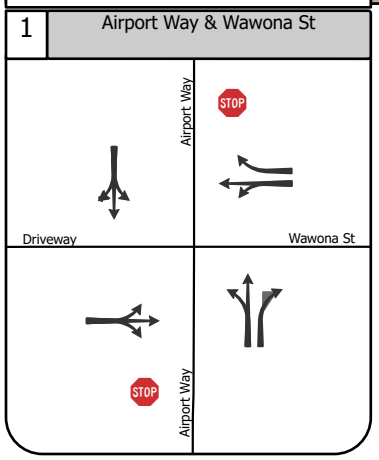
Table 2 presents a summary of the intersection LOS operations under weekday AM and PM peak hour Existing conditions.

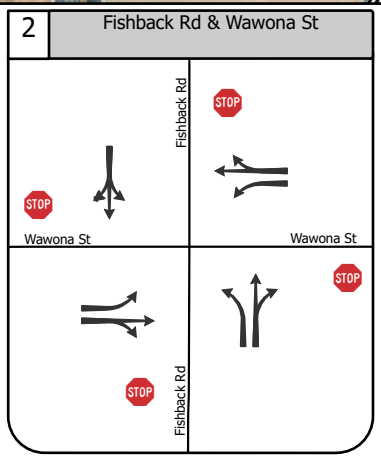
Table 2. Existing Intersection Operations

#	Intersection	Control Type[1]	LOS Criteria	Peak Hour	Existing		
					Delay (sec/veh)[2]	LOS	Warrant Met?[3]
1	Airport Way & Wawona Street	TWSC	D	AM	28.3	D	No
				PM	**45.4**	**E**	No
2	Fishback Road & Wawona Street	AWSC	D	AM	16.0	C	No
				PM	9.0	A	No

*Notes: **Bold** values indicate unacceptable LOS.*
[1] TWSC = Two-Way Stop-Controlled, AWSC = All-Way Stop-Controlled
[2] For TWSC, the worst approach/movement delay and LOS is reported. For AWSC, average delay and LOS are reported.
[3]CA MUTCD Peak Hour Signal Warrant #3

As shown in **Table 2**, the Airport Way & Wawona Street intersection is currently operating at unacceptable LOS E under PM peak hour conditions. CA MUTCD Peak Hour Signal Warrant #3 is currently unmet at the study intersections. Synchro software HCM 7th Edition intersection LOS output reports are included in **Attachment B** and CA MUTCD Peak Hour Warrant #3 worksheets are included in **Attachment C**.



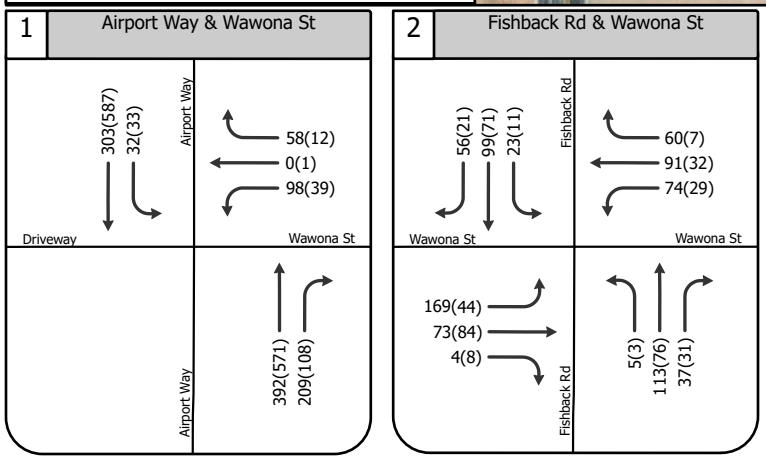


Existing Lane Geometrics and Control
Wawona Apartments LTA
Manteca, CA
April 2025

0 250 500
Feet

Figure 3

WOOD RODGERS



Existing Traffic Volumes
Wawona Apartments LTA
Manteca, CA
April 2025

Figure 4

0 250 500
Feet

WOOD RODGERS

EXISTING PLUS PROJECT CONDITIONS

Project Trip Generation and Distribution

The trip generation data contained in the *ITE Trip Generation Manual, 11th Edition,* was used to approximate the number of trips generated by the Project. The ITE land use category of Multifamily Housing (Low-Rise) (ITE Code 220) was used to represent the proposed multifamily housing building. **Table 3** shows the Project trip generation estimate.

Table 3. Project Trip Generation

Land Use	ITE Code	Quantity	Units	Daily[1]	AM Peak Hour[1]			PM Peak Hour[1]		
					In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise)	220	44	DU[2]	357	9	27	36	25	14	39

Notes:
[1]Trip rates are calculated based on ITE Trip Generation (11th Edition) fitted curve equations.
[2]DU = Dwelling Units

As shown in **Table 3**, the proposed Project is anticipated to generate a total of 357 weekday daily trips, 36 AM peak hour trips (9 inbound, 27 outbound) and 39 PM peak hour trips (25 inbound, 14 outbound) under typical weekday traffic conditions.

Project trips would access the site via one new full-access driveway on Wawona Street, located across from Depot Drive. Project trip distribution at the study intersections was determined based on existing traffic counts and engineering judgement. Project trip distribution and assignment are shown in **Figure 5.** Project trips were added to Existing volumes to obtain Existing Plus Project peak hour volumes, which are shown in **Figure 6**.

Existing Plus Project Intersection Level of Service

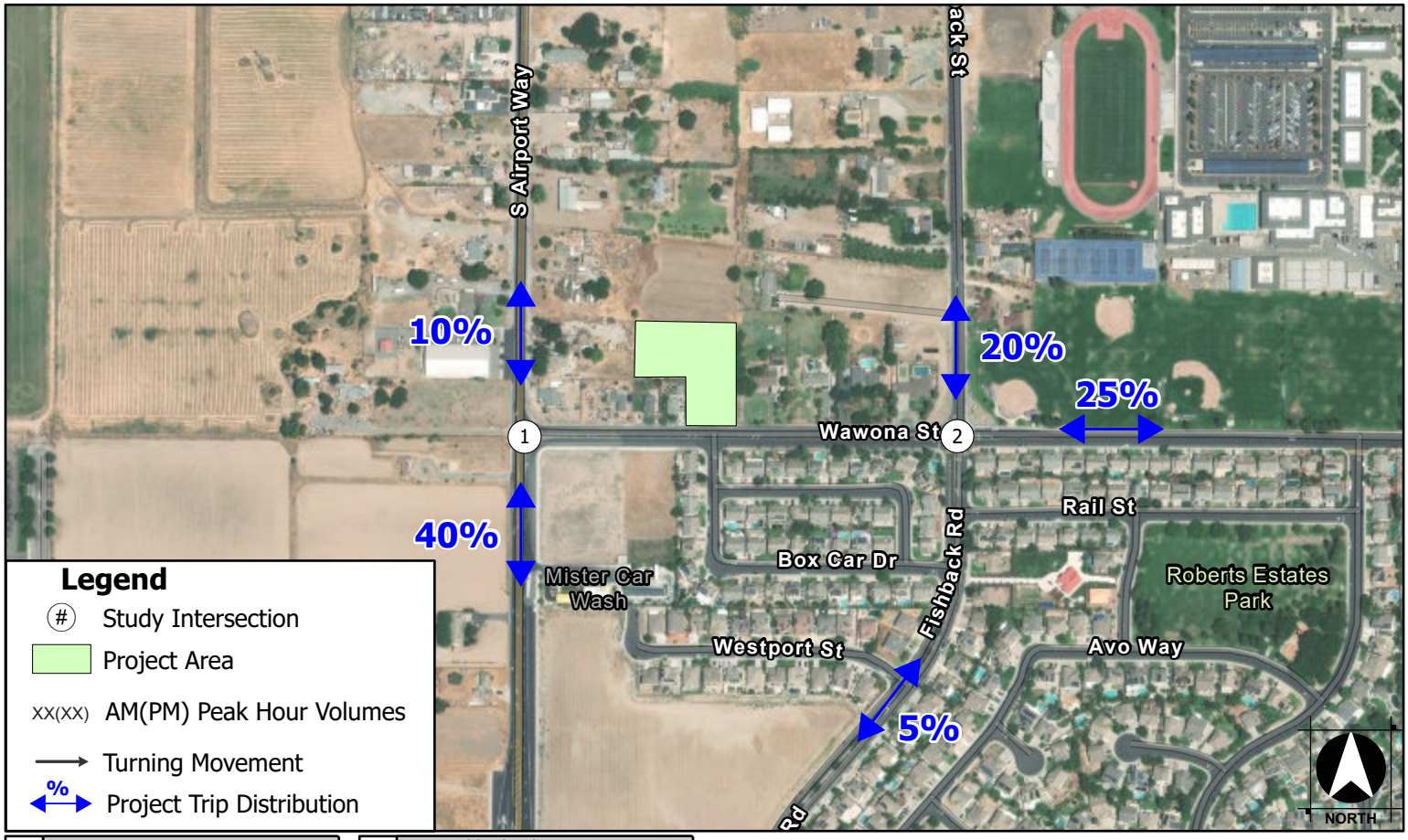
Table 4 presents a summary of the intersection LOS operations under weekday AM and PM peak hour Existing and Existing Plus Project conditions.

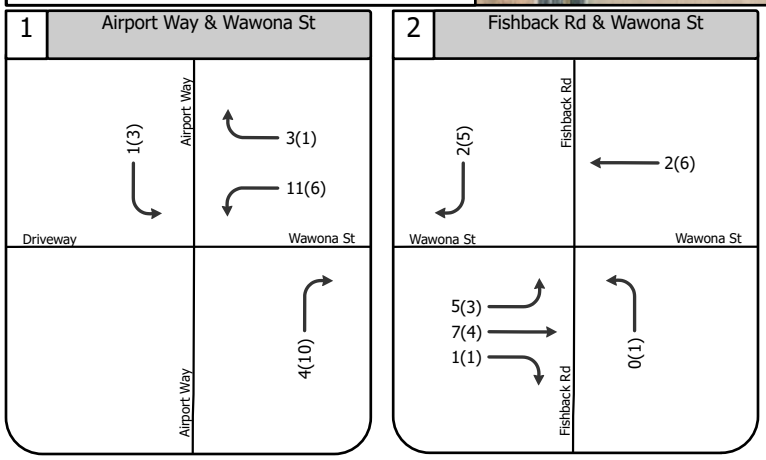
Table 4. Existing Plus Project Intersection Operations

#	Intersection	Control Type[1]	LOS Criteria	Peak Hour	Existing			Existing Plus Project		
					Delay (sec/veh)[2]	LOS	Warrant Met?[3]	Delay (sec/veh)	LOS	Warrant Met?
1	Airport Way & Wawona Street	TWSC	D	AM	28.3	D	No	30.5	D	No
				PM	**45.4**	**E**	No	**49.3**	**E**	No
2	Fishback Road & Wawona Street	AWSC	D	AM	16.0	C	No	16.4	C	No
				PM	9.0	A	No	9.1	A	No

*Notes: **Bold** values indicate unacceptable LOS.*
[1] TWSC = Two-Way Stop-Controlled, AWSC = All-Way Stop-Controlled
[2] For TWSC, the worst approach/movement delay and LOS is reported. For AWSC, average delay and LOS are reported.
[3]CA MUTCD Peak Hour Signal Warrant #3

As shown in **Table 4**, the Airport Way & Wawona Street intersection is projected to operate at unacceptable LOS E under Existing Plus Project PM peak hour conditions. CA MUTCD Peak Hour Signal Warrant #3 is not projected to be met at either study intersection. Synchro software HCM 7th Edition intersection LOS output reports are included in **Attachment B** and CA MUTCD Peak Hour Warrant #3 worksheets are included in **Attachment C**.





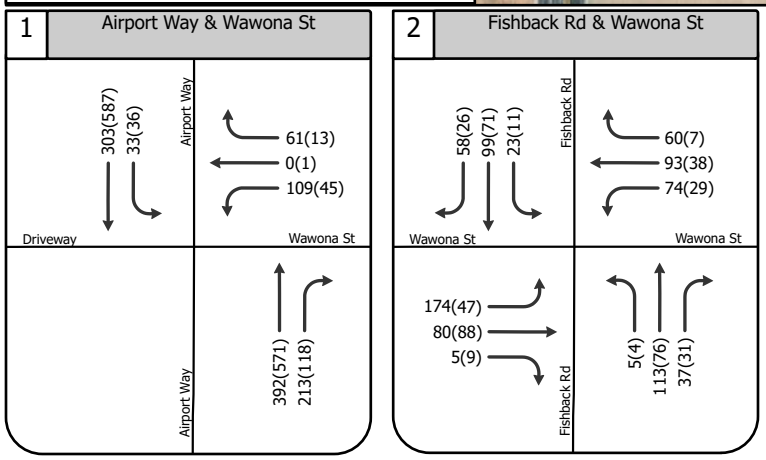
Project Only Traffic Volumes and Distribution

Wawona Apartments LTA
Manteca, CA
April 2025

0 250 500
Feet

Figure 5

WOOD RODGERS



Existing Plus Project Traffic Volumes

Wawona Apartments LTA
Manteca, CA
April 2025

0 250 500
Feet

Figure 6

WOOD RODGERS

INTERSECTION QUEUEING ANALYSIS

Vehicle queuing was analyzed at the study intersections for all stop-controlled movements. **Table 5** shows the available storage lengths and 95th percentile queues under all analysis scenarios.

As shown in **Table 5**, all 95th percentile queues are currently and projected to fit within available storage lengths. 95th percentile queueing results are included in the Synchro reports contained in **Attachment B**.

Table 5. Queueing Analysis Results

#	Intersection	Movement	Available Storage (ft)[1]	Peak Hour	95th Percentile Queue (ft)	
					Existing	Existing Plus Project
1	Airport Way & Wawona Street	WB Left/Thru	145	AM	40	48
				PM	26	32
		WB Right	25	AM	<20	<20
				PM	<20	<20
2	Fishback Road & Wawona Street	NB Left	140	AM	<20	<20
				PM	<20	<20
		NB Thru/Right	140	AM	46	46
				PM	<20	<20
		SB Left/Thru/Right	280	AM	62	64
				PM	<20	<20
		EB Left	135	AM	60	64
				PM	<20	<20
		EB Thru/Right	610	AM	<20	20
				PM	<20	<20
		WB Left	50	AM	<20	<20
				PM	<20	<20
		WB Thru/Right	1,050	AM	42	44
				PM	<20	<20

Notes: One queued vehicle length is considered to be 20 feet long. ***Bold*** *values indicate that queue exceeds storage length.*

[1] For stop-controlled movements, available storage represents the turn pocket length or the distance to the nearest major cross-street, driveway, or parking aisle.

OPERATIONAL DEFICIENCIES

All study intersections are shown to operate at acceptable LOS with the exception of the Airport Way & Wawona Street intersection, which operates at LOS E under Existing and Existing Plus Project PM peak hour conditions. CA MUTCD Peak Hour Signal Warrant #3 is not shown to be met at the intersection.

The proposed Rotten Robbie fueling station project, located within the southeast quadrant of the Airport Way & Wawona Street intersection, has an improvement agreement with the City to construct a traffic signal at the Airport Way & Wawona Street intersection in the near future. The following section includes analysis of the Airport Way & Wawona Street intersection with signalization that includes Project traffic in addition to proposed Rotten Robbie traffic. Rotten Robbie project traffic was included because the Rotten Robbie project is anticipated to be operational around the same time the traffic signal is constructed.

EXISTING PLUS PROJECT WITH SIGNAL CONDITIONS

Existing Plus Project With Signal conditions represent a near-term condition where the proposed Rotten Robbie development has constructed a signal at the Airport Way & Wawona Street intersection. Volumes for this scenario were developed by adding Rotten Robbie trips to Existing Plus Project conditions volumes. Rotten Robbie trips at the intersection were obtained from the *Rotten Robbie Fuel Station Project Transportation Impact Analysis Report* (Fehr & Peers, March 2020). The planned intersection lane configuration and signal phasing were obtained from plans contained in the *City of Manteca Improvement Agreement for Airport Way & Wawona Street Intersection Improvements* (plans by Mannik Smith Group, dated January 18, 2024). Note that this would be an interim condition, as Airport Way is ultimately planned to be widened to four lanes. Existing Plus Project With Signal lane geometrics and control and traffic volumes are shown in **Figure 7**.

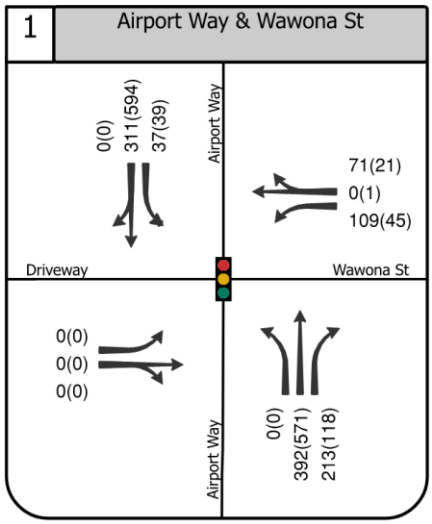


Figure 7. Existing Plus Project With Signal Lane Geometrics and Traffic Volumes – AM Peak Hour (PM Peak Hour)

Intersection delay and LOS under all study scenarios are summarized in **Table 6**.

Table 6. Existing Plus Project With Signal Intersection Operations

#	Intersection	Control Type[1]	LOS Criteria	Peak Hour	Existing		Existing Plus Project		Existing Plus Project With Signal	
					Delay (sec/veh)[2]	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1	Airport Way & Wawona Street	TWSC/ Signal	D	AM	28.3	D	30.5	D	10.6	B
				PM	**45.4**	**E**	**49.3**	**E**	8.5	A

*Notes: **Bold** values indicate unacceptable LOS.*
[1] TWSC = Two-Way Stop-Controlled
[2] For TWSC, the worst approach/movement delay and LOS is reported. For signals, average delay and LOS are reported.

As shown in **Table 6**, the intersection of Airport Way & Wawona Street is projected to operate at an acceptable LOS with planned signal in place.

95th percentile queues were analyzed under signalized conditions to determine if the proposed turn pocket storage lengths would accommodate projected queues. **Table 7** summarizes 95th percentile queues under Existing Plus Project With Signal conditions.

As shown in **Table 7**, projected queues would fit within available storage. Synchro software HCM 7th Edition intersection LOS output reports and queueing reports are included in **Attachment B.**

Table 7. Existing Plus Project With Signal Queueing Analysis Results

#	Intersection	Movement	Proposed Storage (ft)[1]	Peak Hour	95th Percentile Queue (ft)
					Existing Plus Project With Signal
1	Airport Way & Wawona Street	NB Left	50	AM	<20
				PM	<20
		SB Left	90	AM	37
				PM	37
		EB Left	20	AM	<20
				PM	<20

Notes: One queued vehicle length is considered to be 20 feet long. ***Bold*** *values indicate that queue exceeds storage length.*

[1] Based on City of Manteca Improvement Agreement for Airport Way & Wawona Street Intersection Improvements (plans by Mannik Smith Group, dated January 18, 2024).

PROJECT ACCESS GATE QUEUEING

Ingress queueing at the Project access gate was evaluated to determine if there would be sufficient queue storage. The ITE *Transportation and Land Development Manual*, *2nd Edition,* recommends minimum storage of 50 feet for residential developments with fewer than 50 dwelling units. As shown in **Figure 8**, the Project site would include an automatic rolling gate located approximately 100 feet back from the Project property line along Wawona Street. Therefore, the project entrance gate would have approximately 100 feet of storage for ingress vehicles, which could accommodate up to approximately 5 queued cars. The gated portion of the site would contain the proposed apartment building and 70% of the Project parking spaces (56 parking stalls). The remaining 30% of Project parking (24 parking stalls) would be located outside of the gated area. The maximum hourly inbound traffic volume for the Project would occur during the PM peak hour and is estimated to be 25 trips, as shown in **Table 3**.

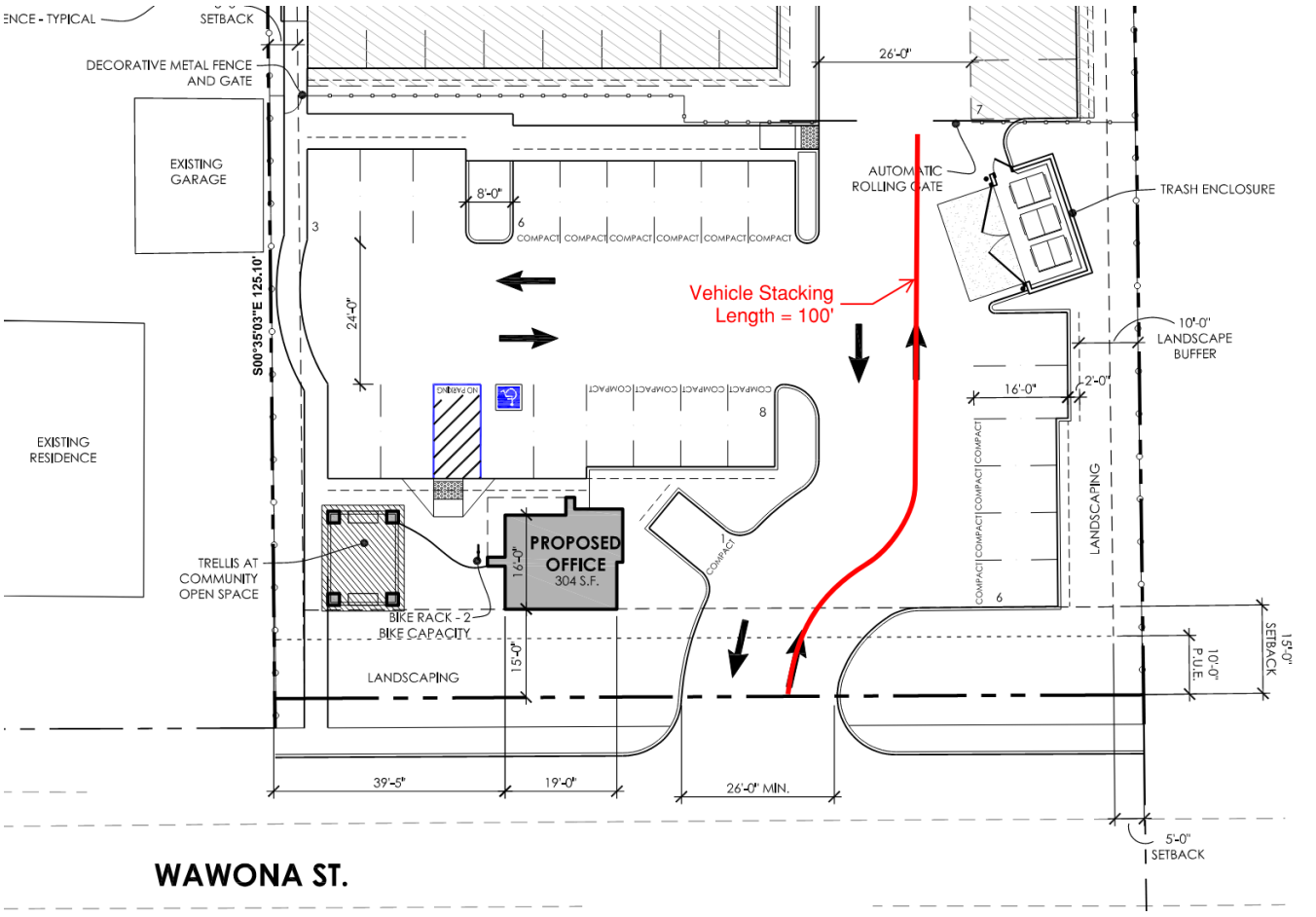


Figure 8. Project Gate Stacking Length

Entry gate queueing was calculated using equations contained in the ITE *Transportation and Land Development Manual* using 95% and 99% confidence intervals. Based on a service rate of 30 seconds per vehicle and a demand rate of 25 vehicles per hour, the estimated 95th percentile queue length at the Project access gate is 20 feet and the estimated 99th percentile queue length at the Project access gate is 40 feet, which would fit within the proposed queue storage space of 100 feet provided by the Project. A 99th percentile confidence interval means there is a 1% chance that a queue would exceed 40 feet. The entry gate queueing calculation worksheet is contained in **Attachment D**.

CONCLUSION

The proposed Project is anticipated to generate a total of 357 weekday daily trips, 36 AM peak hour trips (9 inbound, 27 outbound) and 39 PM peak hour trips (25 inbound, 14 outbound) under typical weekday traffic conditions.

All study intersections are shown to operate at acceptable LOS with the exception of the Airport Way & Wawona Street intersection, which operates at LOS E under Existing and Existing Plus Project PM peak hour conditions. CA MUTCD Peak Hour Signal Warrant #3 is not projected to be met at either intersection.

The proposed Rotten Robbie fueling station project, located within the southeast quadrant of the Airport Way & Wawona Street intersection, has an improvement agreement with the City to construct a traffic signal at the Airport Way & Wawona Street intersection in the near future. Airport Way & Wawona Street was analyzed under Existing Plus Project With Signal conditions, which represent a near-term condition where the proposed Rotten Robbie development has constructed a signal at the Airport Way & Wawona Street intersection. The intersection of Airport Way & Wawona Street is projected to operate at acceptable LOS and acceptable queueing under Existing Plus Project With Signal conditions.

The estimated 99th percentile queue length at the Project access gate is 40 feet, which would fit within the proposed queue storage space of 100 feet provided by the Project.

ATTACHMENT A

TRAFFIC COUNTS

National Data & Surveying Services

Intersection Turning Movement Count

Location: CR J3/Airport Way & Wawona St
City: Manteca
Control: 1-Way Stop(WB)

Project ID: 25-090003-001
Date: 1/9/2025

Data - Totals

NS/EW Streets:	CR J3/Airport Way				CR J3/Airport Way				Wawona St				Wawona St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	56	5	0	2	55	0	0	0	0	0	0	9	0	2	0	129
7:15 AM	0	81	13	0	1	50	0	0	0	0	0	0	6	0	7	0	158
7:30 AM	0	115	15	0	11	67	0	0	0	0	0	0	6	0	6	0	220
7:45 AM	0	108	23	0	14	74	0	0	0	0	0	0	18	0	21	0	258
8:00 AM	0	98	53	0	5	73	0	0	0	0	0	0	8	0	12	0	249
8:15 AM	0	98	106	0	7	68	0	0	0	0	0	0	25	0	7	0	311
8:30 AM	0	88	27	0	6	88	0	0	0	0	0	0	47	0	18	0	274
8:45 AM	0	82	4	0	2	101	0	0	0	0	0	0	7	0	3	0	199
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	726	246	0	48	576	0	0	0	0	0	0	126	0	76	0	1798
APPROACH %'s :	0.00%	74.69%	25.31%	0.00%	7.69%	92.31%	0.00%	0.00%					62.38%	0.00%	37.62%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	392	209	0	32	303	0	0	0	0	0	0	98	0	58	0	1092
PEAK HR FACTOR :	0.000	0.907	0.493	0.000	0.571	0.861	0.000	0.000	0.000	0.000	0.000	0.000	0.521	0.000	0.690	0.000	0.878
		0.737				0.891								0.600			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	131	32	0	4	163	0	0	0	0	1	0	9	0	6	0	346
4:15 PM	0	139	23	0	5	152	0	0	0	1	0	0	7	0	2	0	329
4:30 PM	0	143	30	0	9	143	0	0	0	0	0	0	6	0	4	0	335
4:45 PM	0	142	22	0	6	133	0	0	0	0	0	0	15	0	4	0	322
5:00 PM	0	151	30	0	11	161	0	0	0	0	0	0	7	0	1	0	361
5:15 PM	0	135	26	0	7	150	0	0	0	0	0	0	11	1	3	0	333
5:30 PM	0	114	34	0	6	147	0	0	0	0	0	0	13	1	7	0	322
5:45 PM	0	146	24	0	5	133	0	0	0	0	0	0	7	0	7	0	322
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1101	221	0	53	1182	0	0	0	1	1	0	75	2	34	0	2670
APPROACH %'s :	0.00%	83.28%	16.72%	0.00%	4.29%	95.71%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	67.57%	1.80%	30.63%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	571	108	0	33	587	0	0	0	0	0	0	39	1	12	0	1351
PEAK HR FACTOR :	0.000	0.945	0.900	0.000	0.750	0.911	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.250	0.750	0.000	0.936
		0.938				0.901								0.684			

National Data & Surveying Services

Intersection Turning Movement Count

Location: CR J3/Airport Way & Wawona St
City: Manteca
Control: 1-Way Stop(WB)

Project ID: 25-090003-001
Date: 1/9/2025

Data - Bikes

NS/EW Streets:	CR J3/Airport Way				CR J3/Airport Way				Wawona St				Wawona St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
APPROACH %'s :													0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250
															0.250		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
		0.250				0.250											

National Data & Surveying Services

Intersection Turning Movement Count

Location: CR J3/Airport Way & Wawona St
City: Manteca

Project ID: 25-090003-001
Date: 1/9/2025

Data - Pedestrians (Crosswalks)

NS/EW Streets:	CR J3/Airport Way		CR J3/Airport Way		Wawona St		Wawona St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	1
APPROACH %'s :					100.00%	0.00%			
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	1
PEAK HR FACTOR :					0.250				0.250
					0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	1	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	1	1	0	0	0	0	2
APPROACH %'s :			50.00%	50.00%					
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

CR J3/Airport Way & Wawona St

Peak Hour Turning Movement Count

ID: 25-090003-001
City: Manteca

Day: Thursday
Date: 1/9/2025

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

SOUTHBOUND — CR J3/Airport Way

AM	0	303	32	0	450	AM
NOON	0	0	0	0	0	NOON
PM	0	587	33	0	583	PM

EASTBOUND — Wawona St

AM	NOON	PM		
0	0	1	⇦	
0	0	0	↶	0
0	0	0	↱	0
0	0	0	→	1
0	0	0	↴	0
AM	NOON	PM		

WESTBOUND — Wawona St

PM	NOON	AM		
12	0	58	↰	1
1	0	0	←	1
39	0	98	↰	0
0	0	0	↰	0
141	0	241	⇨	
PM	NOON	AM		

CONTROL: 1-Way Stop(WB)

	AM	NOON	PM
TEV	1092	0	1351
PHF	0.88		0.94

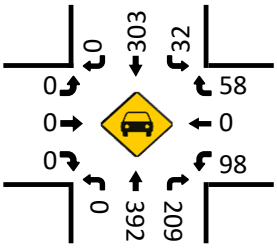
NORTHBOUND — CR J3/Airport Way

PM	626	0	0	571	108	PM
NOON	0	0	0	0	0	NOON
AM	401	0	0	392	209	AM

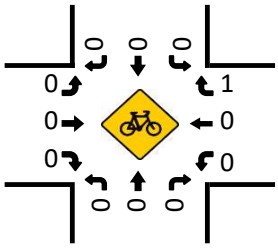
0 0 1 1

0 1 0 0

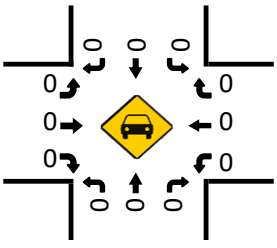
Totals (AM)



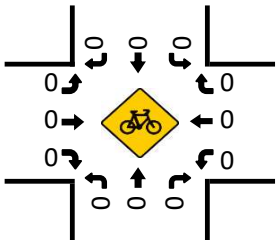
Total Bikes (AM)



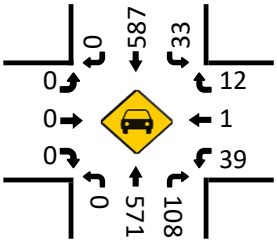
Totals (NOON)



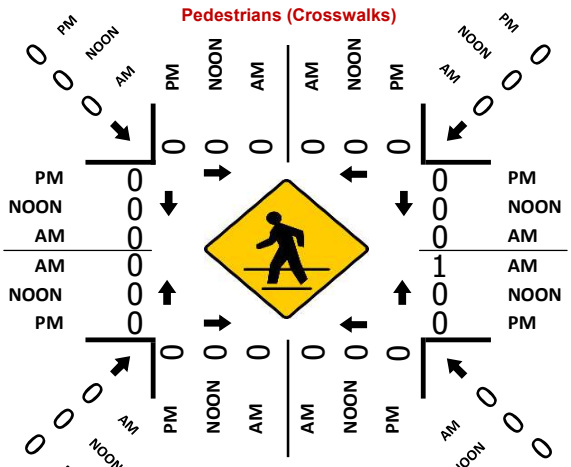
Total Bikes (NOON)



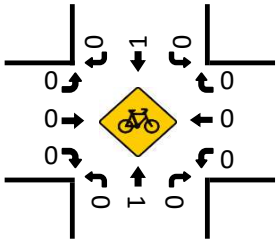
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Depot Dr & Wawona St
City: Manteca
Control: 1-Way Stop(NB)

Project ID: 25-090003-002
Date: 1/9/2025

Data - Totals

NS/EW Streets:	Depot Dr				Depot Dr				Wawona St				Wawona St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	0	0	0	0	0	0	0	0	7	0	0	0	9	0	0	18
7:15 AM	1	0	0	0	0	0	0	0	0	13	0	0	1	12	0	0	27
7:30 AM	2	0	1	0	0	0	0	0	0	23	1	0	0	11	0	0	38
7:45 AM	2	0	3	0	0	0	0	0	0	39	0	0	2	34	0	0	80
8:00 AM	3	0	0	0	0	0	0	0	0	57	2	0	0	17	0	0	79
8:15 AM	0	0	2	0	0	0	0	0	0	112	1	0	0	34	0	0	149
8:30 AM	0	0	0	0	0	0	0	0	0	32	1	0	0	63	0	0	96
8:45 AM	1	0	1	0	0	0	0	0	0	6	0	0	0	9	0	0	17
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	0	7	0	0	0	0	0	0	289	5	0	3	189	0	0	504
APPROACH %'s :	61.11%	0.00%	38.89%	0.00%					0.00%	98.30%	1.70%	0.00%	1.56%	98.44%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	5	0	5	0	0	0	0	0	0	240	4	0	2	148	0	0	404
PEAK HR FACTOR :	0.417	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.536	0.500	0.000	0.250	0.587	0.000	0.000	0.678
	0.500								0.540				0.595				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	1	0	0	0	0	0	0	35	0	0	1	15	0	0	52
4:15 PM	0	0	0	0	0	0	0	0	0	29	0	0	0	8	0	0	37
4:30 PM	0	0	0	0	0	0	0	0	0	38	1	0	0	10	0	0	49
4:45 PM	1	0	1	0	0	0	0	0	0	28	0	0	1	18	0	0	49
5:00 PM	2	0	0	0	0	0	0	0	0	38	2	0	0	6	0	0	48
5:15 PM	1	0	0	0	0	0	0	0	0	29	2	0	2	14	0	0	48
5:30 PM	4	0	1	0	0	0	0	0	0	39	2	0	0	18	0	0	64
5:45 PM	0	0	0	0	0	0	0	0	0	33	0	0	1	12	0	0	46
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	0	3	0	0	0	0	0	0	269	7	0	5	101	0	0	393
APPROACH %'s :	72.73%	0.00%	27.27%	0.00%					0.00%	97.46%	2.54%	0.00%	4.72%	95.28%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	8	0	2	0	0	0	0	0	0	134	6	0	3	56	0	0	209
PEAK HR FACTOR :	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.859	0.750	0.000	0.375	0.778	0.000	0.000	0.816
	0.500								0.854				0.776				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Depot Dr & Wawona St
City: Manteca
Control: 1-Way Stop(NB)

Project ID: 25-090003-002
Date: 1/9/2025

Data - Bikes

NS/EW Streets:	Depot Dr				Depot Dr				Wawona St				Wawona St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
APPROACH %'s :													0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
														0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Depot Dr & Wawona St
City: Manteca

Project ID: 25-090003-002
Date: 1/9/2025

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Depot Dr		Depot Dr		Wawona St		Wawona St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	1	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	0	0	0	1
APPROACH %'s :			100.00%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	3	0	0	0	0	3
4:45 PM	0	0	2	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	3	4	0	0	0	0	7
APPROACH %'s :			42.86%	57.14%					
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	2	1	0	0	0	0	3
PEAK HR FACTOR :			0.250	0.250					0.375
			0.375						

Prepared by National Data & Surveying Services

Depot Dr & Wawona St

Peak Hour Turning Movement Count

ID: 25-090003-002
City: Manteca

Day: Thursday
Date: 1/9/2025

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

CONTROL: 1-Way Stop(NB)

	AM	NOON	PM
TEV	404	0	209
PHF	0.68		0.82

SOUTHBOUND (Depot Dr)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND (Wawona St)

	Left	Thru	Right	Peds
AM	153	0	64	0
NOON	0	0	0	0
PM	0	0	0	0

	Left	Thru	Right	Peds
AM	0	0	0	0
NOON	0	0	0	0
PM	240	0	134	1

	Left	Thru	Right	Peds
AM	4	0	6	0
NOON	0	0	0	0
PM	9	0	8	0

WESTBOUND (Wawona St)

	Left	Thru	Right	Peds
AM	0	0	0	0
NOON	0	0	0	0
PM	0	0	0	0

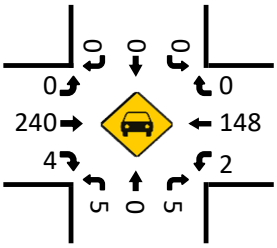
	Left	Thru	Right	Peds
AM	56	0	148	1
NOON	0	0	0	0
PM	3	0	2	0

	Left	Thru	Right	Peds
AM	136	0	245	0
NOON	0	0	0	0
PM	0	0	0	0

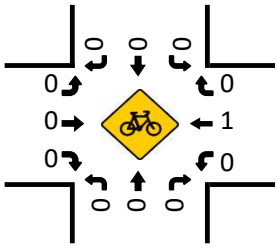
NORTHBOUND (Depot Dr)

	Left	Thru	Right	Peds	Total
AM	6	0	5	0	5
NOON	0	0	0	0	0
PM	0	0	0	0	0

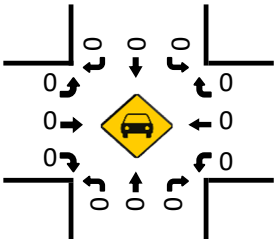
Totals (AM)



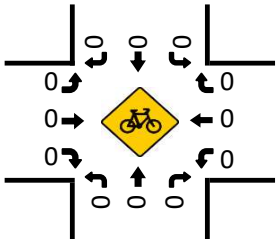
Total Bikes (AM)



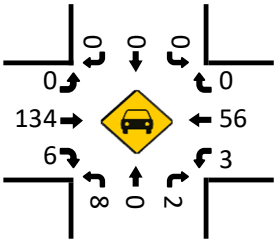
Totals (NOON)



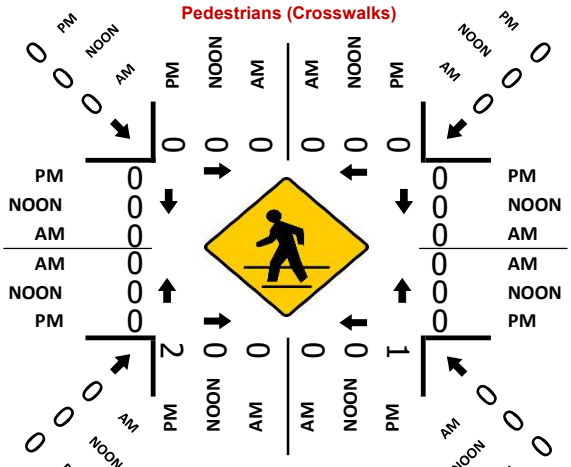
Total Bikes (NOON)



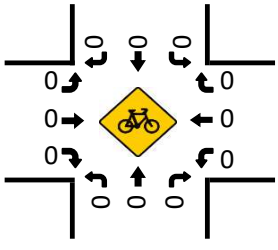
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Fishback Rd & Wawona St
City: Manteca
Control: 4-Way Stop

Project ID: 25-090003-003
Date: 1/9/2025

Data - Totals

NS/EW Streets:	Fishback Rd				Fishback Rd				Wawona St				Wawona St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	6	2	0	0	6	4	0	4	3	0	0	2	4	0	0	32
7:15 AM	0	4	5	0	2	8	2	0	4	8	1	0	7	10	2	0	53
7:30 AM	1	9	8	0	5	3	1	0	8	13	1	0	12	9	1	0	71
7:45 AM	3	8	9	0	7	7	6	0	18	24	2	0	21	28	9	0	142
8:00 AM	0	19	3	0	5	21	2	0	36	18	1	0	15	16	13	0	149
8:15 AM	1	56	14	0	5	34	19	0	95	15	1	0	18	16	26	0	300
8:30 AM	1	30	11	0	6	37	29	0	20	16	0	0	20	31	12	0	213
8:45 AM	1	7	1	0	2	6	1	0	2	7	0	0	9	8	0	0	44
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	139	53	0	32	122	64	0	187	104	6	0	104	122	63	0	1004
APPROACH %'s :	4.00%	69.50%	26.50%	0.00%	14.68%	55.96%	29.36%	0.00%	62.96%	35.02%	2.02%	0.00%	35.99%	42.21%	21.80%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	5	113	37	0	23	99	56	0	169	73	4	0	74	91	60	0	804
PEAK HR FACTOR :	0.417	0.504	0.661	0.000	0.821	0.669	0.483	0.000	0.445	0.760	0.500	0.000	0.881	0.734	0.577	0.000	0.670
	0.546				0.618				0.554				0.893				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	24	7	0	1	26	9	0	14	21	2	0	10	7	3	0	124
4:15 PM	0	16	8	0	4	19	3	0	11	16	3	0	3	8	0	0	91
4:30 PM	2	19	12	0	4	17	1	0	10	29	0	0	10	6	2	0	112
4:45 PM	1	17	4	0	2	9	8	0	9	18	3	0	6	11	2	0	90
5:00 PM	0	17	7	0	2	14	1	0	12	23	4	0	8	6	3	0	97
5:15 PM	0	13	11	0	3	10	4	0	10	18	0	0	7	12	6	0	94
5:30 PM	2	13	15	0	3	24	6	0	12	27	1	0	8	10	7	0	128
5:45 PM	0	11	8	0	4	16	5	0	10	15	4	0	7	9	0	0	89
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	130	72	0	23	135	37	0	88	167	17	0	59	69	23	0	825
APPROACH %'s :	2.42%	62.80%	34.78%	0.00%	11.79%	69.23%	18.97%	0.00%	32.35%	61.40%	6.25%	0.00%	39.07%	45.70%	15.23%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	3	76	31	0	11	71	21	0	44	84	8	0	29	32	7	0	417
PEAK HR FACTOR :	0.375	0.792	0.646	0.000	0.688	0.683	0.583	0.000	0.786	0.724	0.667	0.000	0.725	0.727	0.583	0.000	0.841
	0.833				0.715				0.872				0.850				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Fishback Rd & Wawona St
City: Manteca
Control: 4-Way Stop

Project ID: 25-090003-003
Date: 1/9/2025

Data - Bikes

NS/EW Streets:	Fishback Rd				Fishback Rd				Wawona St				Wawona St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
APPROACH %'s :													0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
4:15 PM	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	3	0	1	5	0	0	0	0	0	0	0	0	7	0	17
APPROACH %'s :	0.00%	25.00%	75.00%	0.00%	16.67%	83.33%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1	3	0	1	3	0	0	0	0	0	0	0	0	4	0	12
PEAK HR FACTOR :	0.000	0.250	0.250	0.000	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.750
		0.333				0.500								0.500			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Fishback Rd & Wawona St
City: Manteca

Project ID: 25-090003-003
Date: 1/9/2025

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Fishback Rd		Fishback Rd		Wawona St		Wawona St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	1	0	1	0	0	0	2
7:15 AM	0	0	0	0	0	2	0	0	2
7:30 AM	2	0	0	0	1	0	0	0	3
7:45 AM	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	1	0	1	0	0	0	2
8:15 AM	0	0	4	0	2	1	0	0	7
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	0	6	0	5	4	0	0	17
APPROACH %'s :	100.00%	0.00%	100.00%	0.00%	55.56%	44.44%			
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	5	0	3	2	0	0	10
PEAK HR FACTOR :			0.313		0.375	0.500			0.357
			0.313		0.417				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	1	7	1	0	0	9
4:15 PM	0	0	1	2	1	2	0	0	6
4:30 PM	0	0	0	3	0	3	0	0	6
4:45 PM	0	0	2	0	0	0	0	0	2
5:00 PM	0	0	1	0	2	1	0	1	5
5:15 PM	0	0	0	1	2	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	4	7	13	7	0	1	32
APPROACH %'s :			36.36%	63.64%	65.00%	35.00%	0.00%	100.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	3	6	8	6	0	0	23
PEAK HR FACTOR :			0.375	0.500	0.286	0.500			0.639
			0.750		0.438				

Prepared by National Data & Surveying Services

Fishback Rd & Wawona St

Peak Hour Turning Movement Count

ID: 25-090003-003
City: Manteca

Day: Thursday
Date: 1/9/2025

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	7:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Fishback Rd)

AM	56	99	23	0	342	AM
NOON	0	0	0	0	0	NOON
PM	21	71	11	0	127	PM
	0	1	0	0		

EASTBOUND (Wawona St)

AM	NOON	PM	
152	0	56	
0	0	0	0
169	0	44	1
73	0	84	1
4	0	8	0
AM	NOON	PM	

WESTBOUND (Wawona St)

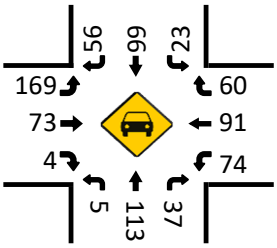
PM	NOON	AM	
7	0	60	0
32	0	91	1
29	0	74	1
0	0	0	0
126	0	133	
PM	NOON	AM	

NORTHBOUND (Fishback Rd)

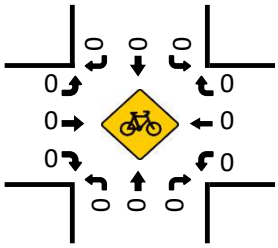
	0	1	1	0		
PM	108	0	3	76	31	PM
NOON	0	0	0	0	0	NOON
AM	177	0	5	113	37	AM

CONTROL			
4-Way Stop			
TEV	804 AM	0 NOON	417 PM
PHF	0.67		0.84

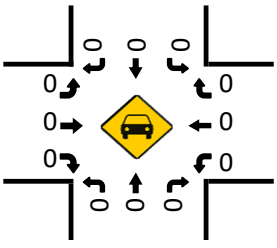
Totals (AM)



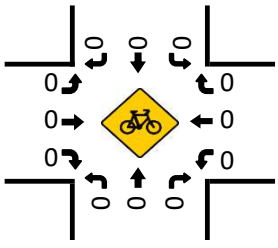
Total Bikes (AM)



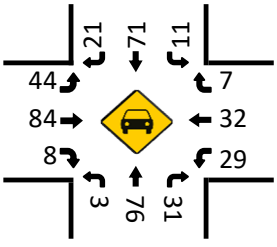
Totals (NOON)



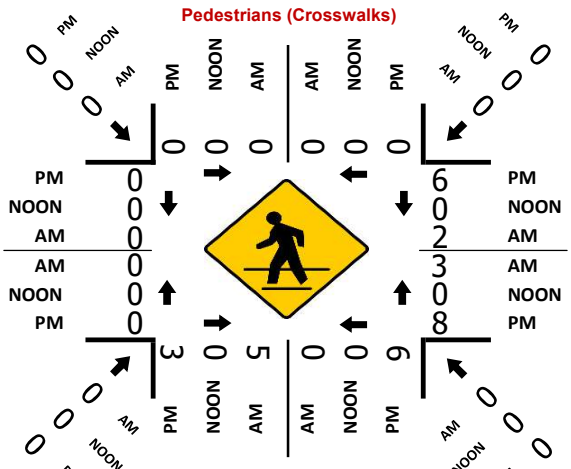
Total Bikes (NOON)



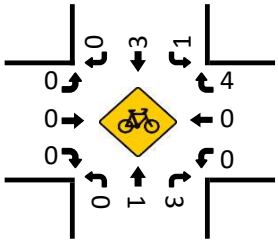
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

VOLUME

Wawona St Bet CR J3/Airport Way & Fishback Rd

Day: Thursday
Date: 1/9/2025

City: Manteca
Project #: CA25_090004_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,687	989	2,676

DAILY TOTALS

15-Minutes Interval

TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00			1	0	1	12:00			13	14	27
0:15			1	0	1	12:15			31	16	47
0:30			3	2	5	12:30			24	17	41
0:45			1	3	4	12:45			31	18	49
1:00			0	0	0	13:00			35	12	47
1:15			2	1	3	13:15			24	8	32
1:30			0	0	0	13:30			33	15	48
1:45			0	1	1	13:45			28	16	44
2:00			1	1	2	14:00			25	26	51
2:15			0	2	2	14:15			40	20	60
2:30			1	0	1	14:30			39	18	57
2:45			3	4	7	14:45			50	13	63
3:00			0	1	1	15:00			40	10	50
3:15			0	3	3	15:15			69	13	82
3:30			0	3	3	15:30			70	58	128
3:45			2	5	7	15:45			39	35	74
4:00			3	7	10	16:00			35	15	50
4:15			1	3	4	16:15			29	8	37
4:30			2	7	9	16:30			39	10	49
4:45			2	3	5	16:45			28	19	47
5:00			1	4	5	17:00			40	8	48
5:15			2	9	11	17:15			31	15	46
5:30			2	10	12	17:30			41	22	63
5:45			1	9	10	17:45			33	12	45
6:00			1	3	4	18:00			24	10	34
6:15			4	6	10	18:15			31	24	55
6:30			8	8	16	18:30			20	10	30
6:45			2	11	13	18:45			24	7	31
7:00			7	11	18	19:00			17	12	29
7:15			13	13	26	19:15			19	7	26
7:30			24	13	37	19:30			10	10	20
7:45			39	36	75	19:45			11	12	23
8:00			59	20	79	20:00			10	5	15
8:15			113	34	147	20:15			17	3	20
8:30			33	63	96	20:30			11	6	17
8:45			6	10	16	20:45			11	6	17
9:00			12	12	24	21:00			4	5	9
9:15			11	6	17	21:15			8	3	11
9:30			7	9	16	21:30			11	3	14
9:45			10	6	16	21:45			12	5	17
10:00			11	6	17	22:00			7	4	11
10:15			22	4	26	22:15			6	2	8
10:30			31	12	43	22:30			6	2	8
10:45			15	11	26	22:45			5	2	7
11:00			22	12	34	23:00			4	1	5
11:15			20	6	26	23:15			3	1	4
11:30			33	20	53	23:30			2	0	2
11:45			14	20	34	23:45			1	1	2
TOTALS	0	0	546	430	976	TOTALS	0	0	1141	559	1700
SPLIT %	0%	0%	56%	44%	36%	SPLIT %	0%	0%	67%	33%	64%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00			6	5	11
01:00	02:00			2	2	4
02:00	03:00			5	7	12
03:00	04:00			2	12	14
04:00	05:00			8	20	28
05:00	06:00			6	32	38
06:00	07:00			15	28	43
07:00	08:00			83	73	156
08:00	09:00			211	127	338
09:00	10:00			40	33	73
10:00	11:00			79	33	112
11:00	12:00			89	58	147
12:00	13:00			99	65	164
13:00	14:00			120	51	171
14:00	15:00			154	77	231
15:00	16:00			218	116	334
16:00	17:00			131	52	183
17:00	18:00			145	57	202
18:00	19:00			99	51	150
19:00	20:00			57	41	98
20:00	21:00			49	20	69
21:00	22:00			35	16	51
22:00	23:00			24	10	34
23:00	00:00			10	3	13

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume			546	430	976
Peak Hour			7:45	7:45	7:45
Peak Volume			244	153	397
Peak Hour Factor			0.540	0.607	0.675
Peak Period	12:00	to	00:00		
Volume			1141	559	1700
Peak Hour			14:45	15:15	15:00
Peak Volume			229	121	334
Peak Hour Factor			0.818	0.522	0.652
Peak Period	07:00	to	09:00		
Volume			294	200	494
Peak Hour			7:45	7:45	7:45
Peak Volume			244	153	397
Peak Hour Factor			0.540	0.607	0.675
Peak Period	16:00	to	18:00		
Volume			276	109	385
Peak Hour			17:00	16:45	16:45
Peak Volume			145	64	204
Peak Hour Factor			0.884	0.727	0.810

ATTACHMENT B

SYNCHRO HCM 7TH EDITION LOS REPORTS

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	98	0	58	0	392	209	32	303	0
Future Vol, veh/h	0	0	0	98	0	58	0	392	209	32	303	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	25	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	111	0	66	0	445	238	36	344	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	863	864	344	864	864	446	344	0	0	446	0	0
Stage 1	417	417	-	446	446	-	-	-	-	-	-	-
Stage 2	445	446	-	417	417	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	275	292	698	275	292	612	1215	-	-	1114	-	-
Stage 1	613	591	-	591	574	-	-	-	-	-	-	-
Stage 2	592	574	-	613	591	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	235	280	698	263	280	611	1215	-	-	1113	-	-
Mov Cap-2 Maneuver	235	280	-	263	280	-	-	-	-	-	-	-
Stage 1	588	567	-	591	573	-	-	-	-	-	-	-
Stage 2	528	573	-	588	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	22.11	0	0.8
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1215	-	-	-	263	611	172	-	-
HCM Lane V/C Ratio	-	-	-	-	0.423	0.108	0.033	-	-
HCM Control Delay (s/veh)	0	-	-	0	28.3	11.6	8.3	0	-
HCM Lane LOS	A	-	-	A	D	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	2	0.4	0.1	-	-

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	169	73	4	74	91	60	5	113	37	23	99	56
Future Vol, veh/h	169	73	4	74	91	60	5	113	37	23	99	56
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	252	109	6	110	136	90	7	169	55	34	148	84
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay, s/veh	16.4	14.1	15.7	18.2
HCM LOS	C	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	13%
Vol Thru, %	0%	75%	0%	95%	0%	60%	56%
Vol Right, %	0%	25%	0%	5%	0%	40%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	150	169	77	74	151	178
LT Vol	5	0	169	0	74	0	23
Through Vol	0	113	0	73	0	91	99
RT Vol	0	37	0	4	0	60	56
Lane Flow Rate	7	224	252	115	110	225	266
Geometry Grp	5	5	5	5	5	5	4b
Degree of Util (X)	0.016	0.451	0.529	0.224	0.235	0.429	0.531
Departure Headway (Hd)	7.935	7.245	7.557	7.007	7.658	6.859	7.19
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	451	497	477	511	468	523	502
Service Time	5.691	5.001	5.314	4.764	5.416	4.617	5.246
HCM Lane V/C Ratio	0.016	0.451	0.528	0.225	0.235	0.43	0.53
HCM Control Delay, s/veh	10.8	15.9	18.5	11.8	12.8	14.7	18.2
HCM Lane LOS	B	C	C	B	B	B	C
HCM 95th-tile Q	0	2.3	3	0.9	0.9	2.1	3.1

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	39	1	12	0	571	108	33	587	0
Future Vol, veh/h	0	0	0	39	1	12	0	571	108	33	587	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	25	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	41	1	13	0	607	115	35	624	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1303	1302	624	1302	1302	607	624	0	0	607	0	0
Stage 1	695	695	-	607	607	-	-	-	-	-	-	-
Stage 2	608	607	-	695	695	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	138	161	485	138	161	496	957	-	-	971	-	-
Stage 1	433	444	-	483	486	-	-	-	-	-	-	-
Stage 2	483	486	-	433	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	126	152	485	130	152	496	957	-	-	971	-	-
Mov Cap-2 Maneuver	126	152	-	130	152	-	-	-	-	-	-	-
Stage 1	409	419	-	483	486	-	-	-	-	-	-	-
Stage 2	469	486	-	409	419	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	37.77	0	0.47
HCM LOS	A	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	957	-	-	-	131	496	96	-	-
HCM Lane V/C Ratio	-	-	-	-	0.326	0.026	0.036	-	-
HCM Control Delay (s/veh)	0	-	-	0	45.4	12.4	8.8	0	-
HCM Lane LOS	A	-	-	A	E	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.3	0.1	0.1	-	-

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	84	8	29	32	7	3	76	31	11	71	21
Future Vol, veh/h	44	84	8	29	32	7	3	76	31	11	71	21
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	100	10	35	38	8	4	90	37	13	85	25
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay, s/veh	9	8.7	9	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	11%
Vol Thru, %	0%	71%	0%	91%	0%	82%	69%
Vol Right, %	0%	29%	0%	9%	0%	18%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	107	44	92	29	39	103
LT Vol	3	0	44	0	29	0	11
Through Vol	0	76	0	84	0	32	71
RT Vol	0	31	0	8	0	7	21
Lane Flow Rate	4	127	52	110	35	46	123
Geometry Grp	5	5	5	5	5	5	4b
Degree of Util (X)	0.006	0.18	0.084	0.159	0.056	0.068	0.178
Departure Headway (Hd)	5.802	5.095	5.781	5.216	5.873	5.242	5.233
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	616	703	619	686	608	681	684
Service Time	3.545	2.838	3.527	2.962	3.624	2.994	3.278
HCM Lane V/C Ratio	0.006	0.181	0.084	0.16	0.058	0.068	0.18
HCM Control Delay, s/veh	8.6	9	9.1	9	9	8.4	9.4
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.7	0.3	0.6	0.2	0.2	0.6

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↰	↗		↕	
Traffic Vol, veh/h	0	0	0	109	0	61	0	392	213	33	303	0
Future Vol, veh/h	0	0	0	109	0	61	0	392	213	33	303	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	25	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	124	0	69	0	445	242	38	344	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	865	866	344	866	866	446	344	0	0	446	0	0
Stage 1	419	419	-	446	446	-	-	-	-	-	-	-
Stage 2	445	446	-	419	419	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	274	291	698	274	291	612	1215	-	-	1114	-	-
Stage 1	611	590	-	591	574	-	-	-	-	-	-	-
Stage 2	592	574	-	611	590	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	233	279	698	262	279	611	1215	-	-	1113	-	-
Mov Cap-2 Maneuver	233	279	-	262	279	-	-	-	-	-	-	-
Stage 1	586	565	-	591	573	-	-	-	-	-	-	-
Stage 2	525	573	-	586	565	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	23.72	0	0.82
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1215	-	-	-	262	611	177	-	-
HCM Lane V/C Ratio	-	-	-	-	0.473	0.113	0.034	-	-
HCM Control Delay (s/veh)	0	-	-	0	30.5	11.6	8.3	0	-
HCM Lane LOS	A	-	-	A	D	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	2.4	0.4	0.1	-	-

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	174	80	5	74	93	60	5	113	37	23	99	58
Future Vol, veh/h	174	80	5	74	93	60	5	113	37	23	99	58
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	260	119	7	110	139	90	7	169	55	34	148	87
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay, s/veh	16.9	14.4	15.9	18.6
HCM LOS	C	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	13%
Vol Thru, %	0%	75%	0%	94%	0%	61%	55%
Vol Right, %	0%	25%	0%	6%	0%	39%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	150	174	85	74	153	180
LT Vol	5	0	174	0	74	0	23
Through Vol	0	113	0	80	0	93	99
RT Vol	0	37	0	5	0	60	58
Lane Flow Rate	7	224	260	127	110	228	269
Geometry Grp	5	5	5	5	5	5	4b
Degree of Util (X)	0.017	0.456	0.548	0.248	0.237	0.44	0.542
Departure Headway (Hd)	8.024	7.334	7.603	7.047	7.732	6.936	7.262
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	446	490	473	509	464	518	497
Service Time	5.783	5.093	5.363	4.807	5.493	4.697	5.321
HCM Lane V/C Ratio	0.016	0.457	0.55	0.25	0.237	0.44	0.541
HCM Control Delay, s/veh	10.9	16.1	19.3	12.1	12.9	15.1	18.6
HCM Lane LOS	B	C	C	B	B	C	C
HCM 95th-tile Q	0.1	2.3	3.2	1	0.9	2.2	3.2

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	45	1	13	0	571	118	36	587	0
Future Vol, veh/h	0	0	0	45	1	13	0	571	118	36	587	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	25	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	48	1	14	0	607	126	38	624	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1309	1309	624	1309	1309	607	624	0	0	607	0	0
Stage 1	701	701	-	607	607	-	-	-	-	-	-	-
Stage 2	608	607	-	701	701	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	159	485	136	159	496	957	-	-	971	-	-
Stage 1	429	441	-	483	486	-	-	-	-	-	-	-
Stage 2	483	486	-	429	441	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	124	150	485	128	150	496	957	-	-	971	-	-
Mov Cap-2 Maneuver	124	150	-	128	150	-	-	-	-	-	-	-
Stage 1	403	414	-	483	486	-	-	-	-	-	-	-
Stage 2	468	486	-	403	414	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	41.19	0	0.51
HCM LOS	A	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	957	-	-	-	128	496	104	-	-
HCM Lane V/C Ratio	-	-	-	-	0.381	0.028	0.039	-	-
HCM Control Delay (s/veh)	0	-	-	0	49.3	12.5	8.9	0	-
HCM Lane LOS	A	-	-	A	E	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.6	0.1	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

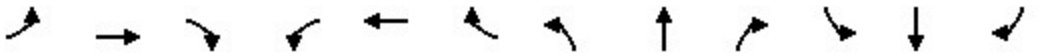
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	88	9	29	38	7	4	76	31	11	71	26
Future Vol, veh/h	47	88	9	29	38	7	4	76	31	11	71	26
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	56	105	11	35	45	8	5	90	37	13	85	31
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay, s/veh	9.1	8.7	9	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	10%
Vol Thru, %	0%	71%	0%	91%	0%	84%	66%
Vol Right, %	0%	29%	0%	9%	0%	16%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	107	47	97	29	45	108
LT Vol	4	0	47	0	29	0	11
Through Vol	0	76	0	88	0	38	71
RT Vol	0	31	0	9	0	7	26
Lane Flow Rate	5	127	56	115	35	54	129
Geometry Grp	5	5	5	5	5	5	4b
Degree of Util (X)	0.008	0.182	0.09	0.168	0.057	0.079	0.188
Departure Headway (Hd)	5.855	5.148	5.813	5.244	5.908	5.294	5.257
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	610	694	615	681	604	674	680
Service Time	3.603	2.896	3.564	2.995	3.664	3.05	3.306
HCM Lane V/C Ratio	0.008	0.183	0.091	0.169	0.058	0.08	0.19
HCM Control Delay, s/veh	8.7	9	9.1	9.1	9	8.5	9.5
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.7	0.3	0.6	0.2	0.3	0.7

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	124	81	445	242	42	353
v/c Ratio	0.38	0.11	0.45	0.26	0.10	0.30
Control Delay (s/veh)	21.6	0.3	12.7	2.9	19.9	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.6	0.3	12.7	2.9	19.9	5.9
Queue Length 50th (ft)	17	0	51	0	5	38
Queue Length 95th (ft)	82	0	199	34	37	79
Internal Link Dist (ft)		453	477			663
Turn Bay Length (ft)					90	
Base Capacity (vph)	429	816	1215	1095	411	1390
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.10	0.37	0.22	0.10	0.25

Intersection Summary



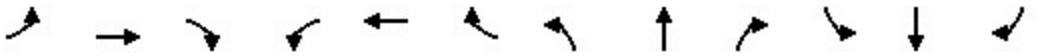
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	109	0	71	0	392	213	37	311	0
Future Volume (veh/h)	0	0	0	109	0	71	0	392	213	37	311	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	124	0	81	0	445	242	42	353	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	343	0	511	0	290	5	629	533	150	1047	0
Arrive On Green	0.00	0.00	0.00	0.18	0.00	0.18	0.00	0.34	0.34	0.08	0.56	0.00
Sat Flow, veh/h	1317	1870	0	1781	0	1585	1781	1870	1583	1781	1870	0
Grp Volume(v), veh/h	0	0	0	124	0	81	0	445	242	42	353	0
Grp Sat Flow(s),veh/h/ln	1317	1870	0	1781	0	1585	1781	1870	1583	1781	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	2.4	0.0	1.7	0.0	8.1	4.7	0.9	4.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	0.0	1.7	0.0	8.1	4.7	0.9	4.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	185	343	0	511	0	290	5	629	533	150	1047	0
V/C Ratio(X)	0.00	0.00	0.00	0.24	0.00	0.28	0.00	0.71	0.45	0.28	0.34	0.00
Avail Cap(c_a), veh/h	343	567	0	725	0	481	412	1144	968	412	1144	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	13.9	0.0	13.7	0.0	11.2	10.1	16.7	4.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.5	0.0	1.5	0.6	1.0	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.9	0.0	0.6	0.0	2.5	1.2	0.3	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	14.2	0.0	14.2	0.0	12.7	10.7	17.7	4.8	0.0
LnGrp LOS				B		B		B	B	B	A	
Approach Vol, veh/h		0			205			687			395	
Approach Delay, s/veh		0.0			14.2			12.0			6.2	
Approach LOS					B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	18.5		11.7	0.0	27.2		11.7				
Change Period (Y+Rc), s	5.4	5.4		4.6	5.4	5.4		4.6				
Max Green Setting (Gmax), s	9.0	23.8		11.8	9.0	23.8		11.8				
Max Q Clear Time (g_c+I1), s	2.9	10.1		0.0	0.0	6.0		4.4				
Green Ext Time (p_c), s	0.0	2.9		0.0	0.0	1.8		0.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			10.6									
HCM 7th LOS			B									

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	23	607	126	41	632
v/c Ratio	0.13	0.07	0.46	0.11	0.11	0.42
Control Delay (s/veh)	22.2	12.3	10.3	2.6	21.2	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.2	12.3	10.3	2.6	21.2	4.5
Queue Length 50th (ft)	11	0	75	0	9	80
Queue Length 95th (ft)	42	18	274	23	37	133
Internal Link Dist (ft)		453	477			663
Turn Bay Length (ft)					90	
Base Capacity (vph)	364	329	1257	1087	389	1436
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.07	0.48	0.12	0.11	0.44

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	45	1	21	0	571	118	39	594	0
Future Volume (veh/h)	0	0	0	45	1	21	0	571	118	39	594	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	48	1	22	0	607	126	41	632	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	205	0	376	8	167	4	787	653	147	1195	0
Arrive On Green	0.00	0.00	0.00	0.11	0.11	0.11	0.00	0.42	0.42	0.08	0.64	0.00
Sat Flow, veh/h	1388	1870	0	1781	69	1526	1781	1870	1552	1781	1870	0
Grp Volume(v), veh/h	0	0	0	48	0	23	0	607	126	41	632	0
Grp Sat Flow(s),veh/h/ln	1388	1870	0	1781	0	1596	1781	1870	1552	1781	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	0.5	0.0	11.1	2.0	0.9	7.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.0	0.0	0.5	0.0	11.1	2.0	0.9	7.3	0.0
Prop In Lane	1.00		0.00	1.00		0.96	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	181	205	0	376	0	174	4	787	653	147	1195	0
V/C Ratio(X)	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.77	0.19	0.28	0.53	0.00
Avail Cap(c_a), veh/h	309	376	0	540	0	321	403	1298	1077	403	1298	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.2	0.0	16.0	0.0	9.9	7.3	17.1	3.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.3	0.0	1.6	0.1	1.0	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	0.2	0.0	3.1	0.4	0.3	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	16.4	0.0	16.3	0.0	11.5	7.4	18.2	4.3	0.0
LnGrp LOS				B		B		B	A	B	A	
Approach Vol, veh/h		0			71			733			673	
Approach Delay, s/veh		0.0			16.4			10.8			5.1	
Approach LOS					B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	22.1		8.9	0.0	30.8		8.9				
Change Period (Y+Rc), s	5.4	5.4		4.6	5.4	5.4		4.6				
Max Green Setting (Gmax), s	9.0	27.6		8.0	9.0	27.6		8.0				
Max Q Clear Time (g_c+I1), s	2.9	13.1		0.0	0.0	9.3		3.0				
Green Ext Time (p_c), s	0.0	3.7		0.0	0.0	3.8		0.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			8.5									
HCM 7th LOS			A									

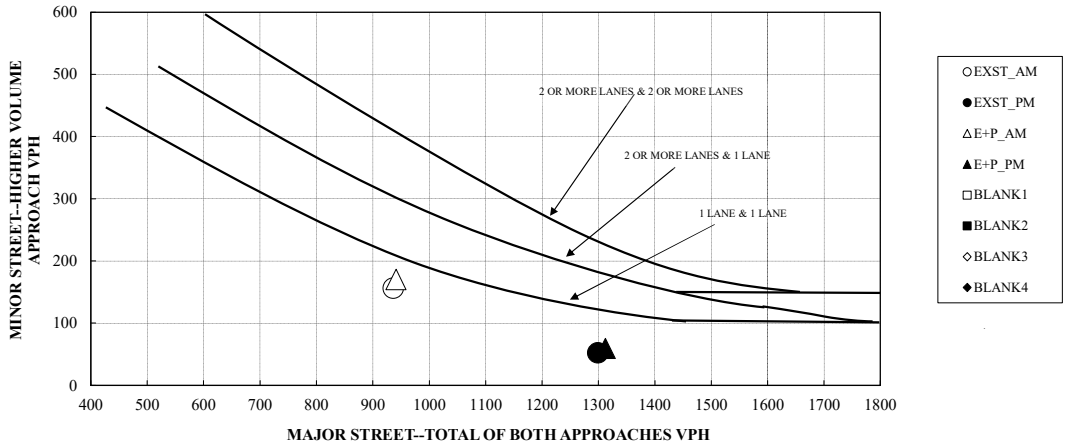
ATTACHMENT C

CA MUTCD Peak Hour Signal Warrant #3 Worksheets

CA SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS

FIGURE 4C-3 WARRANT 3 PEAK HOUR VOLUME (CALIFORNIA MUTCD)



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	936	156	NO
EXST_PM	1299	52	NO
E+P_AM	941	170	NO
E+P_PM	1312	59	NO
BLANK1	0	0	NO
BLANK2	0	0	NO
BLANK3	0	0	NO
BLANK4	0	0	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **February 4, 2025** Intersection No.: **1**

Intersection: **Airport Way & Wawona S**

Number of lanes on MAJOR street: **2**

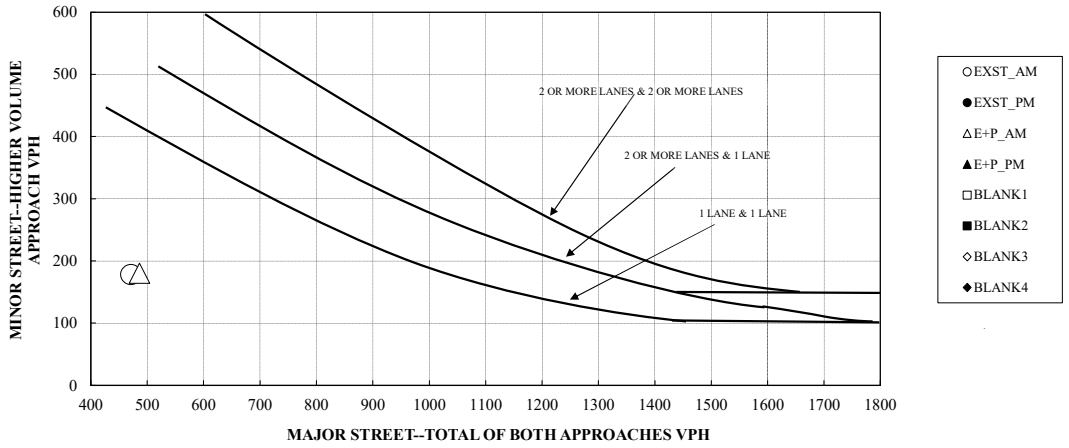
Number of lanes on MINOR street: **1**

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

CA SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS

FIGURE 4C-3 WARRANT 3 PEAK HOUR VOLUME (CALIFORNIA MUTCD)



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	471	178	NO
EXST_PM	213	136	NO
E+P_AM	486	180	NO
E+P_PM	219	144	NO
BLANK1	0	0	NO
BLANK2	0	0	NO
BLANK3	0	0	NO
BLANK4	0	0	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **February 4, 2025** Intersection No.: **2**

Intersection: **Fishback Rd & Wawona St**

Number of lanes on MAJOR street: **2**

Number of lanes on MINOR street: **1**

WOOD RODGERS
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ATTACHMENT D

ENTRY GATE QUEUEING CALCULATION

Entry Gate Queuing Calculation[1]

Project: Wawona Apartments **95th Percentile**

Location: Manteca, CA

	input	calculation
q, Demand rate [veh/hr]	25	
Q, Service rate per channel [veh/hr]*	**120**	
N, Number of service points/channels	1	
N1, Number of storage lanes	1	
P, Confidence interval (**95%**)	**0.05**	
q/NxQ, Utilization factor	0.21	
L, Length of vehicle [ft]	20	

Qm, utilization factor[2]	0.21
N, Number of vehicles being served	1
M, Number of vehicles in queue[3] [rounded to the nearest veh]	0
N+M, Total number of vehicles	0.91
(N+M)/N1, Number of vehicles in each lane per lane	0.91
Length of queue [feet- rounded to nearest 5-ft]	**20**

Notes:

[1]Source: ITE, *Transportation and Land Development* , 1988. Applications of Queueing Analysis on page 231

[2]Qm = utilization factor, values based upon number of service channels (N and utilization factor (q/NxQ) as shown on Table 8-11 of page 231, *Transportation And Land Development* , ITE, 1988

[3] Where M= $\left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$

*Assumes a 30 second service rate per vehicle.

Entry Gate Queuing Calculation[1]

Project: Wawona Apartments **99th Percentile**

Location: Manteca, CA

	input	calculation
q, Demand rate [veh/hr]	25	
Q, Service rate per channel [veh/hr]*	**120**	
N, Number of service points/channels	1	
N1, Number of storage lanes	1	
P, Confidence interval (**99%**)	**0.01**	
q/NxQ, Utilization factor	0.21	
L, Length of vehicle [ft]	20	
Qm, utilization factor[2]		0.21
N, Number of vehicles being served		1
M, Number of vehicles in queue[3] [rounded to the nearest veh]		1
N+M, Total number of vehicles		1.94
(N+M)/N1, Number of vehicles in each lane per lane		1.94
Length of queue [feet- rounded to nearest 5-ft]		**40**

Notes:

[1]Source: ITE, *Transportation and Land Development* , 1988. Applications of Queueing Analysis on page 231

[2]Qm = utilization factor, values based upon number of service channels (N and utilization factor (q/NxQ) as shown on Table 8-11 of page 231, *Transportation And Land Development* , ITE, 1988

[3] Where M= $\left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$

*Assumes a 30 second service rate per vehicle.