



DRAFT ENVIRONMENTAL IMPACT REPORT

Granite Creek Precise Plan

PREPARED FOR:

The City of
MADERA

Planning Department
205 W. 4th Street
Madera, CA 93637

PREPARED BY:



Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 310
Visalia, CA 93291

June 2026

Draft Environmental Impact Report

Granite Creek Precise Plan

Prepared for:

City of Madera
Planning Department
205 W. 4th Street
Madera, CA 93637

Contact: Will Tackett, Director of Community Development
Phone: (559) 661-5451

Prepared by:



Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 310
Visalia, CA 93291

Contact: Emily Bowen
(559) 840-4414

June 2026

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ES-1
CHAPTER ONE - INTRODUCTION	1-1
1.1 Purpose of the EIR	1-1
1.2 Type of EIR	1-2
1.3 Intended Uses of the EIR	1-2
1.4 Known Responsible and Trustee Agencies	1-3
1.5 Environmental Review Process	1-3
1.6 Organization and Scope	1-6
CHAPTER TWO – PROJECT DESCRIPTION	2-1
2.1 Project Location and Surrounding Land Use	2-1
2.2 Project Description	2-2
2.3 Project Objectives	2-15
2.4 Required Approvals	2-15
CHAPTER THREE – ENVIRONMENTAL EVALUATION	
3.1 Aesthetics	3.1-1
3.2 Agriculture & Forestry Resources	3.2-1
3.3 Air Quality	3.3-1
3.4 Biological Resources	3.4-1
3.5 Energy	3.5-1
3.6 Geology & Soils	3.6-1
3.7 Greenhouse Gases / Climate Change	3.7-1
3.8 Hazards & Hazardous Materials	3.8-1
3.9 Hydrology & Water Quality	3.9-1
3.10 Land Use & Planning	3.10-1
3.11 Noise	3.11-1
3.12 Population and Housing	3.12-1
3.13 Public Services	3.13-1
3.14 Recreation	3.14-1
3.15 Transportation / Traffic	3.15-1
3.16 Utilities & Service Systems	3.16-1
CHAPTER FOUR – ALTERNATIVES	4-1
CHAPTER FIVE – OTHER CEQA REQUIREMENTS	5-1

LIST OF FIGURES

2-1 –Location Map	2-8
2-2 – Site Aerial	2-9
2-3 – Granite Creek Project Overview	2-10
2-4 – Annexation Area	2-11
2-5 – Proposed Land Use	2-12
2-6 – Proposed Zone District Map	2-13
2-7 – Proposed Tentative Tract Map	2-14
3.4-1 – CNDDDB Species within 5 miles of Project site	3.4-10
3.10-1 – ALUCP Compatibility Plan	3.10-5
3.11-1 – Project Vicinity and Ambient Noise Monitoring Sites	3.11-19
3.11-2 – 2019 US Greenhouse Gas Emissions by Economic Sector	3.11-22
3.11-3 – Madera Municipal Airport Noise Contours	3.11-38
A-1 – Location of Alternative Sites in Relation to Project Site	4-8
A-2 – Alternative Location #1: Approximately 219 Acres	4-8
A-3 – Alternative Location #2: Approximately 206 Acres	4-15

LIST OF TABLES

Mitigation Monitoring and Reporting Program	ES-7
2-1 Existing Uses, General Plan Designations, and Zone Districts of Surrounding Properties	2-1
2-2 Project Buildout Assumptions	2-5
3.3-1 – San Joaquin Valley Air Basin Attainment Status	3.3-3
3.3-2 – Short-Term Regional Construction Emissions	3.3-15
3.3-3 – Unmitigated Project Operational Emissions	3.3-17
3.3-4 – Mitigated Project Operational Emissions	3.3-18
3.3-5 – Health Risks from Project Construction to Off-Site Receptors	3.3-24
3.4.1 – Special Status Species, Listing Status, Habitat and Occurrence Potential	3.4-3
3.4-2 – Species Observed During Site Reconnaissance	3.4-11
3.5-1 – Electricity Consumption in Madera County 2013-2024	3.5-2
3.5-2 – Natural Gas Consumption in Madera County 2013-2024	3.5-3
3.5-3 – Energy Consumption Estimates During Construction	3.5-11
3.5-4 – Energy Consumption Estimates During Operation	3.5-12
3.7-1 – Project Greenhouse Gas Emissions	3.7-19
3.7-2 – Project Consistency with the City of Madera Climate Action Plan	3.7-28
3.9-1 – Proposed Development and Project Potable Water Demand	3.9-16
3.9-2 – Single Dry Year Demand and Supply Comparison	3.9-19
3.9-3 – Multiple Dry Years Demand and Supply Comparison	3.9-20
3.10-1 – General Plan Consistency Analysis	3.10-8
3.11-1 – Representative Environmental Noise Levels	3.11-2
3.11-2 – Human Response to Different Levels of Groundborne Vibration	3.11-5
3.11-3 – Construction Vibration Damage Criteria	3.11-6
3.11-4 – California Land Use Compatibility Noise Guidelines	3.11-8
3.11-5 – Short Term Noise Measurement Data	3.11-21
3.11-6 – Project Contribution to Future Traffic Noise – Existing Traffic Conditions	3.11-23
3.11-7 – Project Contribution to Future Traffic Noise – 2045 Cumulative Traffic Conditions	3.11-24
3.11-8 – Typical Construction Equipment	3.11-29
3.11-9 – Distances to Traffic Noise Contours	3.11-31

3.11-10 – Typical Vibration Levels During Construction	3.11-37
3.12-1 – Project Buildout Assumptions	3.12-1
3.12-2 – Population Estimates	3.12-8
3.12-3 – Residential Units	3.12-9
3.13-1 – Population Estimates	3.13-8
3.13-2 – Madera Unified School District Student Generation Factors	3.13-11
3.13-3 –Project’s Anticipated Number of New Students	3.13-12
3.15-1 – Baseline (2018) Regional & Project VMT per Capita	3.15-22
3.15-2 – Baseline (2018) Retail Component VMT Comparison	3.15-23
3.16-1 – Total Electricity Consumption in Madera County 2013-2022	3.16-5
3.16-2 – Natural Gas Consumption in Madera County 2013-2022	3.16-6
3.16-3 – WWTP Wastewater Capacity and Project Wastewater Generation	3.16-26
4-1 – Alternatives Potential Impact Analysis	4-31

APPENDICES

Appendix A – NOP & Comment Letters
Appendix B – Air Quality and Greenhouse Gas / Energy Analysis Report
Appendix C – Biological Resource Evaluation
Appendix D – Soils Report
Appendix E – SB 610 Water Supply Assessment
Appendix F – Acoustical Analysis
Appendix G – Vehicle Miles Travelled Analysis

EXECUTIVE SUMMARY

Introduction

This Draft Environmental Impact Report (Draft EIR or EIR) has been prepared consistent with the California Environmental Quality Act (CEQA) for the proposed Granite Creek Precise Plan Project (Project). Its intent is to inform the public, regulatory agencies and the City of Madera (City) decision makers of the potential environmental impacts the proposed Project would have on environmental factors as specified in the CEQA Guidelines. This Draft EIR, in its entirety, addresses and discloses potential environmental effects associated with construction and operation of the proposed Project, including direct, indirect, and cumulative impacts to the environmental resources identified in the CEQA Guidelines environmental checklist. The City of Madera is the “Lead Agency” pursuant to CEQA and is responsible for the preparation and distribution of the Draft EIR.

CEQA Process

The City of Madera circulated a Notice of Preparation (NOP) of an EIR for the Project from April 21, 2025 through May 21, 2025 to trustee and responsible agencies, the State Clearinghouse (SCH #2025040849), and the public. Five agency comments on the NOP related to the EIR analysis were presented or submitted during the public review period. The NOP and written comments provided to the City during the 30-day public review period for the NOP are presented in Appendix A. A scoping meeting (conducted virtually via a “Zoom” meeting) was held on April 24, 2025.

The next step in the process is circulation of this Draft EIR which will be distributed to the public for review and comment for at least 45 days. This Draft EIR is organized as follows:

Executive Summary: Summarizes the analysis contained in the Draft EIR.

Chapter 1 – Introduction: Provides a brief introduction to CEQA and the scope/contents of the Draft EIR.

Chapter 2 – Project Description: Describes the Project in detail. Includes Project location, objectives, environmental setting and regulatory context.

Chapter 3 – Environmental Analysis: Contains the CEQA checklist. Each topic discusses environmental/regulatory setting, Project impact analysis, mitigation measures and conclusions.

Chapter 4 – Alternatives: Describes and evaluates alternatives to the Project. The proposed Project is compared to each alternatives and potential environmental impacts are analyzed.

Chapter 5 – Other CEQA Sections: Describes other required sections such as environmental effects that cannot be avoided, social effects, growth inducement, etc.

Appendices: Following the text of the Draft EIR, several appendices and technical studies have been included as reference material.

Project Location

The Granite Creek Plan Area (Plan Area) is generally located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area is bound by Avenue 14-1/2 to the south, Road 23 to the west, the Fresno River to the north, and Road 24 to the east. The Plan Area consists of two (2) properties that total approximately 204 acres that are generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Plan Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The Plan Area consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. Figure 2-3 provides locational context with all proposed applications.

Project Description Summary

DR Horton (Applicant) requests an Annexation, General Plan Amendment, Pre-Zone, Precise Plan, Tentative Parcel Map, and Tentative Subdivision Map, which would allow for the development of the Granite Creek Precise Plan (proposed Project, Project, or Plan Area), as detailed in Figure 2-3. The Project consists of the following:

Annexation to annex approximately 313-acres of property located on the north side of Avenue 14-1/2 between Road 23 and Road 24 into the City of Madera. See Figure 2-4.

General Plan Amendment (GPA) to change the existing land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses as detailed in Figure 2-5. In 2009, the City of Madera adopted its current General Plan which designates the 204-acres of the Granite Creek Precise Plan Area (Plan Area) as Village Reserve (VR). The GPA will also remove the Village E Specific Policy that requires a permanent agricultural buffer where the westerly edge of the Village abuts the Growth Boundary. While only 60-acres of the Project is proposed for immediate development, a general plan amendment for 210-acres is proposed.

It should be noted while the annexation area includes approximately 313 acres of property, the Plan Area only includes the approximately 204 acres bounded by the Fresno River to the north, Road 24 to the east, Avenue 14 ½ to the south, and Road 23 to the west. The reasoning for this is because detailed neighborhood planning, in this case, the Granite Creek Precise Plan, is only required for Village Reserve Areas outlined in the General Plan Land Use Element. The area to the north of the river has General Plan land use designations of Open Space, Low Density Residential and Village Mixed Use. Therefore, this Granite Creek Precise Plan is not required or necessary for planning the area north of the river. The area north of the river will, however, be included in the annexation and pre-zone applications as required by the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.

Pre-Zone to zone approximately 313-acres of property consistent with existing City of Madera zone districts. Proposed zoning includes approximately: 5.48 acres of P-D (Planned Development) (1500), 35.35 acres of P-D (3000), 105.44 acres of P-D (4500), 18.27 acres of P-D (6000), 10.06 acres of C-1 (Light Commercial), 15.19 acres of C-N (Neighborhood Commercial), 22.34 acres of PF (Public Facilities), 18.73 acres of RCO (Resource Conservation and Open Space), and 85.59 acres of Unclassified zoning (Fresno River) as shown on Figure 2-6.

Precise Plan. The Precise Plan would be adopted as a planning and regulatory document that is to guide the development of the Granite Creek Plan Area. The Precise Plan must, as required by law, be consistent with the City's adopted General Plan. As a regulatory document, similar to the City's Zoning Ordinance of the City's Municipal Code, which specifies process, procedures, and measurable standards where applicable throughout the City, the proposed Precise Plan will serve as the regulatory ordinance (i.e., process, procedures, and standards) specific to only the development of the Plan Area. Upon adoption the Plan would prevail over the City's Zoning Ordinance specific to development within the Plan Area. As a governing document regulating development of the Plan Area, the Precise Plan, where applicable, will be required to be compliant with the City's Municipal Code.

Tentative Subdivision Map to subdivide the approximately 60-acre parcel into 345 residential lots ranging in size from 4,500 square feet to 10,723 square feet (sf.). Approximately 60 acres of the 20-acre Plan Area is proposed for immediate residential development. The 60-acre site is proposed to be developed with 345 residential lots at approximately 6.1 dwelling units per acre and with a 1.19-acre out lot for development as a park area along with streets, lighting, and outer landscape areas to accommodate sidewalk and trail areas. The 60-acre residential development is located entirely on APN 045-070-025 and will be built over three (3) phases of development beginning at the south end of the parcel closest to Road 14-1/2. See Figure 2-3.

Project Assumptions

Although the only immediate physical development proposed by the Project includes the 60-acre TSM as described previously, this environmental document analyzes the potential buildout of the Project site, using reasonable assumptions so that future development described in the Precise Plan can tier from this EIR pursuant to CEQA Guidelines Section 15168(C)(1) and 15168(d) for evaluations of environmental issues associated with later activities/subsequent projects. Depending on the final design of future physical development, additional project specific CEQA review may be required as determined by the City through the entitlement review and approval process.

The proposed density, intensity, acreage, and realistic maximum development potential (housing units or square footage) of the Project are summarized in Table 2-2. Build out of the Granite Creek Plan Area is limited to a maximum of 1,542 residential dwelling units and approximately 612,235 square feet over approximately 204 acres. Proposed development beyond these limitations may require additional environmental review. The number of residents at full build out is estimated at 5,119 based on an average household size of 3.32. Nearly 60% of the proposed Project area is planned for residential uses, followed by 40% planned for employment uses including commercial and mixed use, and the remaining for public institutional (K-8 School Site), open space, and roadways.

Currently, there are no development plans to develop the 109 acres north of the Fresno River included in the proposed annexation and pre-zone entitlements, as described under the General Plan Amendment heading earlier in this section. Of the 109 acres, approximately 18 acres are developable and will be pre-zoned PD-6000 (see Figure 2-6). Any development north of the Fresno River; however, is not a part of the Project and will undergo separate environmental review when a development application is submitted to the City. For Project analysis purposes, it is estimated that full buildout will occur over a ten year period.

Refer to Chapter Two – Project Description for the full description of the Project.

Project Objectives

In accordance with CEQA Guidelines Section 15124(b), the following are the City of Madera's Project objectives:

- To provide housing opportunities with a range of densities, styles, sizes and values that will be designed to satisfy existing and future demand for quality housing in the area.
- To assist the City in meeting its state-mandated Regional Housing Needs Allocation of 5,910 total units for the 2024-2032 planning period, by providing up to 1,542 new residential units, thereby contributing to the City's Housing Element goals and supporting the City's obligation to maintain an adequate inventory of sites suitable for residential development.
- To locate residential units in close proximity to employment centers and commercial services to reduce vehicle miles traveled and support regional greenhouse gas reduction goals.
- To provide a sense of community and walkability within the development through the use of street patterns, a park, landscaping and other Project amenities.
- To create a pedestrian-friendly environment with integrated trail systems and bicycle infrastructure to provide recreational opportunities near the Fresno River.
- To phase development and infrastructure to respond to marked demand while requiring infrastructure and public facilities necessary to serve the Project's needs.
- To develop a mix of retail, commercial, and civic uses in an area planned for development, to create a lively "sense of place," and provide a fiscally neutral or positive impact on the City.

Summary of Environmental Impacts

As described in Chapter 3, it was determined that all impacts were either less than significant, or could be mitigated to a less than significant level with the exception of the following:

- **Aesthetics** – Degrade existing site character (project and cumulative level)
- **Air Quality** – Conflict with Air Quality Plan / Exceed criteria pollutant thresholds / Expose sensitive receptors to substantial pollutant concentrations (project and cumulative level)

Even with the mitigation measures described in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, of this Draft EIR, impacts in these issue areas would be significant and unavoidable.

Summary of Project Alternatives

CEQA Guidelines Section 15126.6 requires the consideration of a range of reasonable alternatives to the proposed Project that could feasibly attain most of the objectives of the proposed Project. This Draft EIR analyzed the following alternatives:

- **No Project Alternative:** Under this Alternative, the Project would not be constructed and the site would remain in agricultural production.
- **Alternate Locations Alternative:** Under this Alternative, the Project would be developed on a different site of similar size and scale.
- **Reduced (50%) Footprint and Density Project Alternative:** Under this Alternative, the Project would be reduced by 50% (overall site acreage, residential units, commercial acreage, and recreational facilities).
- **Increased Residential and Decreased Commercial Development Alternative:** Under this Alternative, residential development would be increased and commercial development would be decreased.
- **Decreased Residential and Increased Commercial Development Alternative:** Under this Alternative, residential development would be decreased and commercial development would be increased.

See Chapter 4 – Alternatives for a full description of potential environmental impacts associated with each alternative.

Mitigation Monitoring and Reporting Program

State law requires that a public agency adopt a monitoring program for mitigation measures that have been incorporated into the approved Project to reduce or avoid significant effects on the environment. The purpose of the monitoring program is to ensure compliance with environmental mitigation during Project implementation and operation. Since there are potentially significant impacts requiring mitigation associated with the Project, a Mitigation Monitoring and Reporting Program will be included in the Project's Final EIR, a draft of which is included herein on the following pages.

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Air Quality				
AIR-1: Consistent with San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VIII (Fugitive PM₁₀ Prohibitions), the following controls shall be required for all future construction projects within the Project area and implemented at the construction site during construction: • All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant or covered with a tarp or other suitable cover or vegetative ground cover. • All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. • When materials are transported off site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient	Project Applicant	Prior to issuance of grading or building permits	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.				
AIR-2: Prior to issuance of building permits, the City of Madera shall review and approve project design details and specifications to demonstrate implementation of the following emission reduction measures. The applicant shall incorporate the measures, as applicable to the proposed land use(s) indicated in parentheses below, into final project design. These measures shall be made enforceable as conditions of approval and shall be verified by the City prior to issuance of certificates of occupancy. Implementation of the following measures, where applicable to the proposed land use(s) based on the parentheses below, are considered to be effective in reducing criteria pollutant emissions generated by the Project: A. Transportation and Circulation Measures (All Land Uses) Traffic Calming and Vehicle Speed Reduction. Project roadway designs shall include at least two traffic-calming features per roadway segment, such as narrowed travel lanes (≤ 10 feet for local streets), speed tables or platforms, curb bulb-outs, chicanes, or raised intersections, consistent with City engineering standards.	Project Applicant	Prior to issuance of building permits	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
• Pedestrian and Bicycle Connectivity. The project shall provide continuous pedestrian sidewalks on both sides of all internal streets, separated from travel lanes by landscaping or on-street parking where feasible. Bicycle facilities shall be provided in accordance with City standards or the latest Caltrans Highway Design Manual, as applicable. • Safe and Direct Access. Pedestrian and bicycle access routes from public rights-of-way, transit stops, and parking areas to building entrances shall be physically separated from vehicular travel lanes and shall not be obstructed by walls, berms, excessive slopes, or discontinuous pathways. • Parking Lot Pedestrian Circulation. For land uses that include public parking lot(s), parking areas shall include clearly marked pedestrian pathways connecting parking stalls and transit facilities to building entrances. Pathways shall be a minimum of 6 feet wide, landscaped or shaded with trees or canopies providing at least 50 percent shade coverage within 15 years of project approval. • Carpool, Vanpool, and Rideshare Incentives. For land uses that include public parking lot(s), a minimum of 5 percent of on-site parking spaces shall be designated as preferential parking for carpool, vanpool, or rideshare vehicles and shall be located within the closest parking row to primary building entrances and clearly signed. B. Building Energy and Electrification Measures (Residential and Non-Residential) • All-Electric Development Requirement. All new buildings shall be designed and constructed as all-electric, with no				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
natural gas infrastructure (including piping, meters, or combustion appliances). • If the applicant demonstrates to the City's satisfaction that full electrification is infeasible, the project shall implement equivalent or greater criteria pollutant and greenhouse gas emission reductions through a combination of the following measures, subject to City approval: ○ Install on-site solar photovoltaic systems sized to offset 100 percent of the projected annual electricity demand attributable to gas-powered end uses; ○ Install battery energy storage systems to support peak-load reduction; and/or ○ Incorporate other City-approved design features that achieve equivalent emission reductions, quantified using accepted modeling methods. • Energy Efficiency Standards. All buildings shall exceed the Title 24 Building Energy Efficiency Standards by a minimum of 20 percent, as demonstrated through energy compliance documentation submitted with building permit applications. • Efficient Appliances and Water Heating. All appliances shall be ENERGY STAR–certified, where available, and all water heating systems shall consist of high-efficiency electric heat pump water heaters. C. Renewable Energy and Site Design Measures (All Land Uses) • On-Site Solar Energy Generation. The project shall maximize on-site solar energy generation by installing photovoltaic systems on rooftops and/or carport structures. Solar				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
installations shall utilize all feasible roof area not constrained by shading, structural limitations, or code requirements. • Sustainable Site Design. Buildings shall incorporate energy-efficient design features, including optimal site orientation, light-colored roofing and paving materials with a minimum solar reflectance index (SRI) of 75 for roofs and 50 for pavements, and the strategic placement of deciduous shade trees and windbreak trees to reduce heating and cooling demands. D. Materials, Coatings, and Construction-Related Measures (All Land Uses) • Low-VOC Coatings. All interior and exterior paints, coatings, and finishes shall contain no more than 10 grams per liter of VOCs, excluding water and exempt compounds. E. Landscaping and Water Efficiency Measures (All Land Uses) • Water-Efficient Landscaping. Landscaping shall comply with the Model Water Efficient Landscape Ordinance (MWELO) and shall utilize drought-tolerant plant species, high-efficiency irrigation systems, and soil moisture sensors to minimize water use and associated energy demand.				
AIR-3: The City shall require all development within the Granite Creek Precise Plan Area that is subject to Rule 9510 to provide to the City Rule 9510 approval documentation, which would include Construction Clean Fleet	Project Applicant	Prior to the issuance of grading permits	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
paperwork for such projects making construction clean fleet commitments, prior to issuance of grading permits.				
Biological Resources				
BIO-1: Burrowing Owl Pre-Construction Surveys Preconstruction surveys following the methodology described in the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report) shall be conducted the survey season immediately prior to prior to any development or ground-disturbance activities associated with the Project. Please note that the 2012 Staff Report necessitates multiple surveys the survey season prior to ground-disturbance activities.	Project Applicant	Prior to issuance of grading or building permits	City of Madera and CDFW	
BIO-2: Burrowing Owl Avoidance Buffer Should a BUOW or known BUOW den (active or inactive) be detected, either during pre-construction surveys or construction activities, a no-disturbance buffer, as outlined in the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report) ¹ and identified below, shall be implemented prior to and during any ground-disturbing activities. These buffers shall also be implemented for both wintering and breeding BUOW.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	

¹ California Burrowing Owl Consortium (CBOC). 1997. Burrowing Owl Survey Protocol and Mitigation Guidelines. Pages 171–177, in Lincer, J. L. and K. Steenhof (editors). 1997. The Burrowing Owl, its Biology and Management. Raptor Research Report Number 9.

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)																									
<table><tr><th>Location</th><th>Time of Year</th><th colspan="3">Level of Disturbance</th></tr><tr><td></td><td></td><th>Low</th><th>Med</th><th>High</th></tr><tr><td>Nesting sites</td><td>April 1-Aug 15</td><td>200 m (656 ft)</td><td>500 m (1640 ft)</td><td>500 m (1640 ft)</td></tr><tr><td>Nesting sites</td><td>Aug 16-Oct 15</td><td>200 m (656 ft)</td><td>200 m (656 ft)</td><td>500 m (1640 ft)</td></tr><tr><td>Nesting sites</td><td>Oct 16-Mar 31</td><td>50 m (164 ft)</td><td>100 m (328 ft)</td><td>500 m (1640 ft)</td></tr></table> m = meters, ft = feet Buffers should be implemented for both wintering and breeding BUOW	Location	Time of Year	Level of Disturbance					Low	Med	High	Nesting sites	April 1-Aug 15	200 m (656 ft)	500 m (1640 ft)	500 m (1640 ft)	Nesting sites	Aug 16-Oct 15	200 m (656 ft)	200 m (656 ft)	500 m (1640 ft)	Nesting sites	Oct 16-Mar 31	50 m (164 ft)	100 m (328 ft)	500 m (1640 ft)				
Location	Time of Year	Level of Disturbance																											
		Low	Med	High																									
Nesting sites	April 1-Aug 15	200 m (656 ft)	500 m (1640 ft)	500 m (1640 ft)																									
Nesting sites	Aug 16-Oct 15	200 m (656 ft)	200 m (656 ft)	500 m (1640 ft)																									
Nesting sites	Oct 16-Mar 31	50 m (164 ft)	100 m (328 ft)	500 m (1640 ft)																									
BIO-3: Burrowing Owl Take Authorization If a BUOW or known BUOW den (active or inactive) is detected, and the no-disturbance buffers outlined in the Staff Report are not feasible, consultation with CDFW shall occur to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW																										
BIO-4: Swainsons Hawk Surveys Prior to Construction Preconstruction surveys following the methodology developed by the SWHA Technical Advisory Committee shall be conducted within the survey season immediately prior to construction.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW																										
BIO-5: Swainsons Hawk Avoidance Buffer If Project-specific earth-moving activities will take place during the SWHA nesting season (i.e., March 1 through September 15),	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW																										

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
and active SWHA nests are present, a minimum ½-mile no-disturbance buffer shall be delineated and maintained around each nest, regardless of whether it was detected by surveys or observed incidentally. These buffers shall remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, to prevent nest abandonment and other take of SWHA as a result of Project activities.				
BIO-6: Swainsons Hawk Take Authorization If an active SWHA nest is detected during Project-related earth-moving activities, and a ½-mile no-disturbance buffer is not feasible, consultation with CDFW shall occur to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	
BIO-7: Protect Crotch's Bumble Bee A qualified biologist shall conduct a site survey to document all potential nesting sites for the CBB, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs. If potentially suitable habitat is identified, a qualified biologist shall conduct focused surveys for CBB, and their requisite habitat features following the methodology outlined in the	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species. If surveys indicate the presence or potential presence of CBB, consultation with the CDFW shall be conducted for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.				
BIO-8: Protect California Tiger Salamander A qualified biologist shall conduct a robust habitat assessment of the Project site and Project vicinity, including an appropriate habitat assessment buffer, to determine whether suitable breeding or dispersal habitat may be present for the CTS prior to earth-moving activities. If it is determined that suitable habitat is present, a qualified biologist shall conduct protocol-level surveys in accordance with the U.S Fish and Wildlife (USFWS) “Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander” (USFWS CTS Protocol). If surveys indicate the presence or potential presence of CTS, consultation with the CDFW shall occur for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	

Mitigation Measure		Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
BIO-9:	Protect American Badger A qualified biologist shall assess the presence or absence of AMBA by conducting a focused field survey in all areas of potentially suitable habitat prior to earth moving activities. If surveys indicate the presence or potential presence of AMBA, consultation with the CDFW shall occur for guidance on mitigation measures such as avoidance, minimization, and mitigation.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	
BIO-10:	Protect Northwestern Pond Turtle Prior to the commencement of earth moving activities, a qualified biologist shall conduct focused surveys for WPT within the northern portion of the Project site and within areas of suitable habitat within the Project vicinity as part of the biological technical studies conducted in support of the DEIR. If surveys indicate the presence or potential presence of WPT, consultation with the CDFW shall occur for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	
BIO-11:	Protect Western Spadefoot A qualified biologist shall conduct focused surveys to identify presence of WESP on the Project site prior to any earth moving activities. If these surveys indicate the presence or potential presence of WESP, consultation with the CDFW shall occur for guidance on surveys and mitigation measures such as avoidance, minimization, and mitigation.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	

Mitigation Measure		Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
BIO-12:	Protect Valley Elderberry Longhorn Beetle A qualified biologist shall conduct a habitat assessment on the Project site and the immediate surrounding vicinity prior to any earth moving activities to determine if there is habitat suitable to support VELB. If it is determined that suitable habitat is present, consultation with CDFW and USFWS shall occur for guidance on surveys and mitigation measures such as avoidance, minimization, and mitigation.	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	
BIO-13:	Protect Wildlife from Artificial Lighting The following measures shall be implemented to all light fixtures within 400 feet of the Fresno River Corridor, and as depicted on site plans submitted for City review during the entitlement process: • All light fixtures should be shielded and directional, directing light strictly downward to the ground. • Cool blue or bright white lights shall be replaced with warmer tones, such as yellow or amber, ideally below 3,000 Kelvins. • The lowest wattage or lumen output necessary for the task shall be used. • Light fixtures shall be mounted as low to the ground as possible to minimize the distance light travels through the environment while still ensuring safety.	Project Applicant	During Site Plan Review prior to issuance of permits	City of Madera and CDFW	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
BIO-14: Protect nesting birds. All ground-disturbing activities shall occur during the bird non-nesting season (September 16 through February 14); however, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season (February 15 through September 15), a qualified biologist shall conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. The survey shall cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. A qualified biologist shall also conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, a qualified biologist shall continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, construction work causing that change shall halt and consultation with CDFW shall occur for additional avoidance and minimization measures. If continuous monitoring of identified nests by a qualified biologist is not feasible, a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors shall be identified. These buffers shall remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, as determined by the qualified	Project Applicant	Prior to issuance of grading permits	City of Madera and CDFW	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
biologist, such as when the construction areas would be concealed from a nest site by topography. A qualified biologist shall advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.				
Cultural Resources				
CUL – 1: The following measures shall be implemented: • Before initiation of construction or ground-disturbing activities associated with the Project, the City shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources; • The general contractor and its supervisory staff shall be responsible for monitoring the construction Project for disturbance of cultural resources; and • If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the identified potential resource shall cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the	Project Applicant	Ongoing during earth-moving activities	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. City of Madera shall implement said measures.				
CUL – 2: City of Madera will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the City of Madera, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the City shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code section 21083.2.	Project Applicant	Ongoing during earth-moving activities	City of Madera	
Geology & Soils				
GEO – 1 The Project proponent shall retain a registered geotechnical engineer to prepare a design level geotechnical analysis prior to the issuance of any grading and/or building permit. The design-level analysis shall address site preparation measures and foundation design requirements of the Project. The design-level analysis shall be prepared to the satisfaction of the City of	Project Applicant	Prior to issuance of grading permits	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Madera. Final design-level Project plans shall be designed in accordance with the approved geotechnical analysis. This shall include certification of engineered fills and subgrade preparation through monitoring of earthwork and compaction testing by a geotechnical engineer during construction.				
GEO – 2 In order to reduce on-site erosion due to construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System (NPDES). The erosion component of the plan must at least meet the requirements of the SWPPP required by the Central Valley RWQCB. If earth disturbing activities are proposed between October 15 and April 15, these activities shall be limited to the extent feasible to minimize potential erosion related impacts. Additional erosion control measures may be implemented in consultation with the City of Madera. Prior to the issuance of a grading permit, any Project developer within Plan area shall submit detailed plans to the satisfaction of the City of Madera. The components of the erosion control plan and SWPPP shall be monitored for effectiveness by the City of Madera. Erosion control measures shall include at minimum, but may not be limited to, the following:	Project Applicant	Prior to issuance of grading or building permits and during construction	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
i. Limit disturbance of soils and vegetation disturbance removal to the minimum area necessary for access and construction; ii. Confine all vehicular traffic associated with construction to the right-of-way of designated access roads; iii. Adhere to construction schedules designed to avoid periods of heavy precipitation or high winds; iv. Ensure that all exposed soil is provided with temporary drainage and soil protection when construction activity is shut down during the winter periods; and v. Inform construction personnel prior to construction and periodically during construction activities of environmental concerns, pertinent laws and regulations, and elements of the proposed erosion control measures.				
Hazards & Hazardous Materials				
HAZ-1 Soil sampling, per California Department of Toxic Substances Control (DTSC) <i>Interim Guidance for Sampling Agricultural properties (August 7, 2008)</i> ² shall be conducted prior to the issuance of grading permits to identify the amounts of OCPs in the soil. If present, OCPs requiring further analysis, per DTSC consultation, are dichloro-diphenyl-trichloroethane, toxaphene, and dieldrin. Should these OCPs be present, soil remediation shall be conducted until levels are reduced per DTSC guidelines prior to issuance of grading permits. Additionally, if any level of	Project Applicant	Prior to issuance of grading or building permits	City of Madera	

² California Department of Toxic Substances Control. Interim Guidance for Sampling Agricultural Properties (Third Revision). August 7, 2008. <https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Ag-Guidance-Rev-3-August-7-2008-2.pdf>. Accessed February 2026.

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
arsenic is present, further analysis and sampling shall meet Human Health Risk Assessment NOTE NUMBER 3, DTSC-SLs approved thresholds. ³ If arsenic levels do not meet the approved thresholds, remedial action shall take place to reduce levels below thresholds prior to issuance of grading permits..				
Hydrology and Water Quality				
HYD-1 In order to reduce on-site erosion due to Project construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional prior to the issuance of grading permits. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System (NPDES). Erosion control measures shall include at a minimum, but not limited to the following: i. Limit disturbance of soils and vegetation disturbance removal to the minimum area necessary for access and construction; ii. Confine all vehicular traffic associated with construction to the right-of-way of designated access roads; iii. Adhere to construction schedules designed to avoid periods of heavy precipitation or high winds;	Project Applicant	Prior to issuance of grading permits	City of Madera	

³ California Department of Toxic Substances Control. Human and Ecological Risk Office. June 2020, revised May 2022. <https://dtsc.ca.gov/ecological-risk-assessment-hero/>. Accessed February 2026.

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
iv. Ensure that all exposed soil is provided with temporary drainage and soil protection when construction activity is shut down during the winter periods; and v. Inform construction personnel prior to construction and periodically during construction activities of environmental concerns, pertinent laws and regulations, and elements of the proposed erosion control measures. The erosion component of the plan shall at least meet the requirements of the SWPPP required by the Central Valley RWQCB. Additional erosion control measures shall be implemented in consultation with the City of Madera. Prior to the issuance of any permit, the Project proponent shall submit detailed plans to the satisfaction of the City of Madera for approval. The components of the erosion control plan and SWPPP shall be monitored for effectiveness by the City of Madera.				
Noise				
NOI - 1: Prior to issuance of building permits for development or redevelopment of future existing structures within the Light Commercial or Neighborhood Commercial Zones, the City of Madera will require a detailed acoustical study to be prepared by a certified professional to document potential impacts to onsite and offsite noise-sensitive land uses (as determined by the City of Madera's General Plan and Municipal Code thresholds) as follows: When specific uses within the Light Commercial or	Project Applicant	Prior to issuance of building permits	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Neighborhood Commercial Zones are proposed that could result in a potential noise-related conflict between a commercial or other stationary noise source and existing or proposed noise-sensitive receptor, an acoustical analysis shall be required by the City of Madera that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. When the study indicates that potential impacts will be in exceedance of the City of Madera's standards, projects shall be required to incorporate mitigation such as increased setbacks, sound walls, equipment enclosures, site design, and enhanced building materials to quantifiably reduce impacts to levels below the City of Madera standards. Development that cannot incorporate mitigation to reduce impacts to acceptable City of Madera standards shall not be approved. Evidence of compliance with this mitigation measure shall be provided to the City of Madera prior to issuance of building permits.				
NOI - 2: The following best management practices shall be applied during all Project construction and shall be required by the City as conditions of approval for the construction of all development projects: • All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source. • Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.	Project Applicant	During Construction	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
• All noise-producing construction equipment shall be located and operated, at the greatest possible distance from any noise-sensitive land uses. • Locate construction staging areas at the greatest possible distances from any noise-sensitive land uses. • Ensure that all general construction related activities are restricted to between the hours of 6:00 a.m. and 8:00 p.m., consistent with the City's Noise Ordinance • Designate a "disturbance coordinator" at the City, at the expense of the Project contractor, who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.				
NOI - 3: For Project components involving new sensitive receptors (residential land uses) within the cumulative 70 dB Ldn noise contours of adjacent roadway segments, the City of Madera shall require construction of block walls to achieve noise attenuation to below the City's noise thresholds. The City of Madera Municipal Code provides standards for the construction of block walls, within the City of Madera. Standard wall heights permitted by the City of Madera range between 6-foot to 8- foot in height. Depending on the height and geometric relationship	Project Applicant	Prior to issuance of building permits	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
between the roadway and the receiver location, walls of this height range would be typically expected to provide between approximately 6-7 dB of noise attenuation. While specific wall height requirements would generally be determined once final lot layout designs and elevations are known, wall heights of up to 8 feet will be sufficient to mitigate traffic noise within all proposed residential land uses, to below the City's acceptable maximum noise exposure levels allowed. Evidence of compliance with this mitigation measure shall be provided to the City of Madera prior to issuance of building permits.				
Transportation				
TRA-1: Prior to the issuance of construction or building permits, the City shall require as a condition of approval for any future development within the Plan Area that the Project developer(s) shall comply with General Plan policies CI-1, CI-4, CI-5, CI-6, CI-7, CI-11, CI-12 and CI-22.	Project Applicant	Prior to issuance of grading permits	City of Madera	
TRA-2: Prior to the issuance of building permits, the City shall require as a condition of approval for any future development within the Plan Area that the Project developer(s) shall: 1. Prepare and submit a Construction Traffic Control Plan to City of Madera for approval. Implement the approved Construction Traffic Control Plan during construction. The Construction Traffic Control Plan shall be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control	Project Applicant	Prior to issuance of building permits	City of Madera	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Devices and Work Area Traffic Control Handbook and shall include at minimum, but not be limited to, the following issues: a. Timing of deliveries of heavy equipment and building materials; b. Directing construction traffic with a flag person; c. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic; d. Ensuring access for emergency vehicles to the project site; e. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections; f. Maintaining access to adjacent property; and, g. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible.				

1.0 INTRODUCTION

This Environmental Impact Report (EIR or Draft EIR) has been prepared on behalf of the City of Madera (City) in accordance with the California Environmental Quality Act (CEQA). This chapter outlines the purpose of and overall approach to the preparation of the EIR for the Granite Creek Precise Plan and related approvals/entitlements, including an Annexation, General Plan Amendment, Pre-Zone, Tentative Parcel Map, and Tentative Subdivision Map for the development of Tract 26-S-01 (Project). The Project Applicant, DR Horton, is proposing within the Granite Creek Precise Plan area, a mixed-use development over approximately 204 acres which will include residential, commercial, other public and semi-public and open space land uses. The Project is adjacent to the western City boundary in Madera County, California, and is generally bound by the Fresno River to the north, Avenue 14-1/2 to the south, Road 23 to the west and by the Vineyard West Phase II Subdivision to the east. Refer to Chapter Two – Project Description for the full description of the Project.

An EIR fulfills the requirements of CEQA as set forth in Sections 15126, 15175, and 15176 of the CEQA Guidelines. The Planning Commission and City Council will use the EIR during the public review process in order to understand the potential environmental implications associated with implementing the Project.

1.1 Purpose of EIR

This EIR has been prepared in accordance with CEQA and CEQA Guidelines. This EIR has been prepared by the City of Madera as the "Lead Agency," in consultation with the appropriate local, regional and state agencies.

The purpose of the EIR is to inform the public generally of the significant environmental effects of the Project, identify possible ways to minimize the significant effects, and describe reasonable alternatives that support the objectives of the Project. As defined by the CEQA Guidelines, Section 15382, a "significant effect on the environment" is as follows:

"... a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

An Initial Study was prepared by the City of Madera (City) for the Project, which determined that the Project could have potentially significant impacts in the areas of air quality, energy,

greenhouse gas emissions, hydrology, noise, transportation and utilities. The City, therefore, determined that an EIR would be required for the Project. This EIR concentrates on the potentially significant impacts of the Project on the seven environmental issue areas described above, in addition to the following environmental issue areas.

- Aesthetics
- Agricultural Resources
- Biological Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use
- Population and Housing
- Public Services
- Recreation

While these areas were determined to have either no impact or a less than significant impact in the Initial Study, an EIR-level assessment has been provided in this document. The environmental impact areas of Cultural Resources, Mineral Resources, Tribal Resources, and Wildfire were also determined to either have no impact or have a less than significant impact (with or without mitigation). This EIR references the Initial Study prepared for the Project for these four areas of impact analysis not provided in this EIR (see Appendix A).

1.2 Type of EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Project-level EIR pursuant to CEQA Guidelines Section 15161. A Project-level EIR is described in State CEQA Guidelines § 15161 as: “The most common type of EIR (which) examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation. The project-level analysis considers the broad environmental effects of a proposed project.”

1.3 Intended Uses of the EIR

The City of Madera, as the Lead Agency, has prepared this EIR to provide the public and responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from implementation of the Project. The environmental review process enables interested parties to evaluate the Project in terms of its environmental consequences, to examine

and recommend methods to eliminate or reduce potential adverse impacts, and to consider a reasonable range of alternatives to the Project. While CEQA requires that consideration be given to avoiding adverse environmental effects, the lead agency must balance adverse environmental effects against other public objectives, including the economic and social benefits of a project, in determining whether a project should be approved.

This EIR will be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the Project. This EIR may also be used by other agencies within the area, including the Air District, which may use this EIR during the permitting process.

1.4 Known Responsible and Trustee Agencies

The term “Responsible Agency” includes all public agencies other than the Lead Agency that have discretionary approval power over the project or an aspect of the project (CEQA Guidelines Section 15381). For the purpose of CEQA, a “Trustee” agency has jurisdiction by law over natural resources that are held in trust for the people of the State of California (CEQA Guidelines Section 15386). The Project may require permits and approvals from Trustee and Responsible Agencies, which may include, but not be limited, to the following:

- San Joaquin Valley Air Pollution Control District – approval of construction air quality permits
- Regional Water Quality Control Board (Storm Water Pollution Control Plan)
- Madera Local Agency Formation Commission (LAFCo) – annexation approval

1.5 Environmental Review Process

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

Notice of Preparation

The City of Madera circulated a Notice of Preparation (NOP) of an EIR for the Project from April 21, 2025 through May 21, 2025 to trustee and responsible agencies, the State Clearinghouse (SCH #2025040849), and the public.

Five agency comments on the NOP related to the EIR analysis were presented or submitted during the public review period. The NOP and written comments provided to the City during the 30-day public review period for the NOP are presented in Appendix A. NOP comment letters are summarized as follows:

- **CA Department of Fish & Wildlife** (May 25, 2025): Identified potential species in the Project area and provided recommendations on handling of such species.
- **CA Department of Toxic Substances Control** (April 23, 2025): Identified potential hazardous due to historical agricultural uses. Provided suggestions for testing and possible mitigation for the hazardous impact.
- **CA Department of Conservation** (May 9, 2025). Provided Project considerations and mitigation measures for potential agricultural land loss or conversion to non-agricultural uses.
- **Native American Heritage Commission** (April 17, 2025): Identified the applicable tribal consultation guidelines and requirements associated with the Project.
- **California Department of Transportation** (May 27, 2025): Provided general comments and suggestions on analysis to be included in the EIR.

Draft EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the Project, description of the environmental setting, identification of the Project's direct and indirect impacts on the environment, and mitigation measures for impacts found to be significant, as well as an analysis of Project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Draft EIR, the City of Madera will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the public review period.

Public Notice/Public Review

Concurrent with the NOC, the City of Madera will provide a public notice of availability for the Draft EIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA requirements, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR will be accepted in written form. All comments or questions regarding the Draft EIR should be addressed to:

Robert Smith, Senior Planner
 City of Madera
 205 West Fourth Street
 Madera, CA 93637
 Rsmith@madera.gov

Responses to Comments/Final EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and to oral comments during such review period.

Entitlement Procedures / Certification of the EIR / Project Consideration

The City of Madera will be the Lead Agency for the Project, pursuant to the California Environmental Quality Act (CEQA). The Project will require the following approvals from the City of Madera:

- Approval of an Annexation by the Madera Local Agency Formation Commission
- Approval of the Granite Creek Precise Plan
- Approval of a General Plan Amendment by the City of Madera
- Approval of a Pre-Zone by the City of Madera
- Approval of a Tentative Subdivision Map by the City of Madera
- Approval of Building Permits by the City of Madera
- Certification of an Environmental Impact Report by the City of Madera

Prior to taking action to approve the Project, the City of Madera will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete," the City Council may

certify the Final EIR in accordance with CEQA. As set forth by CEQA Guidelines Section 15151, the standards of adequacy require an EIR to provide a sufficient degree of analysis to allow decisions to be made regarding the Project that intelligently take account of environmental consequences.

Upon review and consideration of the Final EIR, the City Council may take action to approve, revise, or reject the Project. A decision to approve the Project, for which this EIR identifies significant environmental effects, must be accompanied by written findings in accordance with State CEQA Guidelines Sections 15091 and 15093. A Mitigation Monitoring and Reporting Program (MMRP) would also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the Project to reduce or avoid significant effects on the environment. The Mitigation Monitoring and Reporting Program will be designed to ensure that these measures are carried out during Project implementation, in a manner that is consistent with the EIR.

1.6 Organization and Scope

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. Discussion of the environmental issues addressed in the Draft EIR was established through review of environmental and planning documentation developed for the Project, environmental and planning documentation prepared for recent projects located within the City of Madera, and responses to the NOP. This Draft EIR is organized in the following manner:

Executive Summary

The Executive Summary summarizes the characteristics of the Project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the Project's environmental impacts and possible mitigation measures. This chapter identifies alternatives that reduce or avoid at least one significant environmental effect of the Project.

Chapter 1.0 – Introduction

Chapter 1.0 briefly describes the Project, the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, identifies the scope and organization of the Draft EIR, and summarizes comments received on the NOP.

Chapter 2.0 – Project Description

Chapter 2.0 provides a detailed description of the Project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, subsequent projects and activities, and a list of related agency action requirements.

Chapter 3.0 – Environmental Setting, Impacts and Mitigation Measures

Chapter 3.0 contains an analysis of environmental topic areas as identified below. Each subchapter addressing a topical area is organized as follows:

Environmental Setting. A description of the existing environment as it pertains to the topical area.

Regulatory Setting. A description of the regulatory environment that may be applicable to the Project.

The following environmental topics are addressed in this Draft EIR:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology
- Land Use
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities

Chapter 4.0 – Project Alternatives

Chapter 4.0 provides a comparative analysis between the merits of the Project and the selected alternatives. State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the Project, which could feasibly attain the basic objectives of the Project and avoid and/or lessen any significant environmental effects of the Project.

Chapter 5.0 – Other CEQA-Required Topics

Chapter 5.0 evaluates and describes the following CEQA required topics: growth-inducing effects, significant and irreversible effects, significant and unavoidable impacts, substantial adverse effects on protected fish, wildlife, and plant species, substantial adverse effects on human beings, and effects not found to be significant.

Appendices

This section includes the NOP and responses to the NOP in addition to the air quality/GHG, noise and traffic technical studies and the Water Supply Assessment.

Incorporation by Reference

In compliance with CEQA Guidelines Section 15150, this Draft EIR has incorporated by reference the *Madera General Plan Update - Environmental Impact Report*, adopted October 7, 2009 (State Clearinghouse #2007121153). That document is available for review at the City of Madera, 205 West Fourth Street, Madera, CA 93637. Also incorporated by reference is the San Joaquin Valley Air Pollution Control District's *Guidance for Assessing and Mitigating Air Quality Impacts*, which can be found on the following website: <https://www.valleyair.org/permitting/ceqa/>.

2.0 PROJECT DESCRIPTION

2.1 Project Location and Surrounding Land Use

The Granite Creek Plan Area (Plan Area) is generally located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area is bound by Avenue 14-1/2 to the south, Road 23 to the west, the Fresno River to the north, and Road 24 to the east. The Plan Area consists of two (2) properties that total approximately 204 acres that are generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Plan Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The Plan Area consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. Figure 2-3 provides locational context with all proposed applications.

A majority of the proposed Project site is currently in agricultural production of grapevines and almond trees. The Project area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. The south side of the Project area includes a combination of residential uses and agricultural uses. Table 2-1 shows the existing uses, general plan designations, and zone districts of the surrounding properties.

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

Direction from Project Site	Existing Use	General Plan Designation	Zone District
North	Agriculture, Fresno River	Village Mixed Use (VMU), Medium Density Residential (MDR), Low Density Residential (LDR), Open Space (OS), High Density Residential (HDR)	Village Country Estates (VCE), Village Low Density Residential (VLDR), Village Medium Density Residential (VMDR), Village High Density Residential (VHDR), Village Mixed Use (VME)(City)
East	Agriculture, Residential	AE – Agricultural Exclusive, A – Agricultural	PD (600), PD (4500) (City)
South	Residential	Low Density Residential	ARE-20, AR-5, RRS-2 (County)
West	Agriculture	AE – Agricultural Exclusive	AR-5 (County)

2.2 Project Description

DR Horton (Applicant) requests an Annexation, General Plan Amendment, Pre-Zone, Precise Plan, Tentative Parcel Map, and Tentative Subdivision Map, which would allow for the development of the Granite Creek Precise Plan (proposed Project, Project, or Plan Area), as detailed in Figure 2-3. The Project consists of the following:

Annexation to annex approximately 313-acres of property located on the north side of Avenue 14-½ between Road 23 and Road 24 into the City of Madera. See Figure 2-4.

General Plan Amendment (GPA) to change the existing land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses as detailed in Figure 2-5. In 2009, the City of Madera adopted its current General Plan which designates the 204-acres of the Granite Creek Precise Plan Area (Plan Area) as Village Reserve (VR). The GPA will also remove the Village E Specific Policy that requires a permanent agricultural buffer where the westerly edge of the Village abuts the Growth Boundary. While only 60-acres of the Project is proposed for immediate development, a general plan amendment for 210-acres is proposed.

It should be noted while the annexation area includes approximately 313 acres of property, the Plan Area only includes the approximately 204 acres bounded by the Fresno River to the north, Road 24 to the east, Avenue 14 ½ to the south, and Road 23 to the west. The reasoning for this is because detailed neighborhood planning, in this case, the Granite Creek Precise Plan, is only required for Village Reserve Areas outlined in the General Plan Land Use Element. The area to the north of the river has General Plan land use designations of Open Space, Low Density Residential and Village Mixed Use. Therefore, this Granite Creek Precise Plan is not required or necessary for planning the area north of the river. The area north of the river will, however, be included in the annexation and pre-zone applications as required by the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.

Pre-Zone to zone approximately 313-acres of property consistent with existing City of Madera zone districts. Proposed zoning includes approximately: 5.48 acres of P-D (Planned Development) (1500), 35.35 acres of P-D (3000), 105.44 acres of P-D (4500), 18.27 acres of P-D (6000), 10.06 acres of C-1 (Light Commercial), 15.19 acres of C-N (Neighborhood Commercial), 22.34 acres of PF (Public Facilities), 18.73 acres of RCO (Resource Conservation and Open Space), and 85.59 acres of Unclassified zoning (Fresno River) as shown on Figure 2-6.

Neighborhood Commercial Zone. Neighborhood commercial zone districts are intended primarily to meet the everyday convenience needs of people residing within surrounding residential

neighborhoods for retail convenience goods and personal services. All development and uses located within the C-N zone district shall comply with the standards and requirements for the C-N zone district set forth in Madera Municipal Code (MMC) Chapter 10-3-9.201 *et seq.* with the exception of service stations and auto-related uses which shall be prohibited within the Plan Area.

Light Commercial Zone. Light commercial zone districts are intended to accommodate a range of retail and service uses that are not appropriate in other areas because of higher volumes of vehicle traffic and potential impacts on other uses. All development and uses located within the C-1 zone district shall comply with the standards and requirements for the C-1 zone district set forth in MMC Chapter 10-3.801 *et seq.* with the exception of service stations and auto-related uses which shall be prohibited within the Plan Area.

Public Facilities Zone. Public Facilities zone districts are designed to retain and provide land areas for public use and to place the public and all elected officials and public agencies on notice of proposed changes in the use of such land. All development and uses located within the PF zone district shall comply with the standards and requirements for the PF zone district set forth in MMC Chapter 10-3-6.501 *et seq.*

Resource Conservation and Open Space Zone. Resource conservation and open space zone districts are intended to provide for permanent open spaces in areas of the community which exhibit significant vegetation, scenic qualities, wildlife, or recreational potential, including areas designated as open space on the General Plan, drainage ponds for recreational use, and areas reserved to reduce conflicts between land uses. All development and uses located within the RCO zone district shall comply with the standards and requirements for the RCO zone district set forth in MMC Chapter 10-3.601 *et seq.*

Portions of the Pre-Zone area have existing City of Madera General Plan land use designations consistent with the proposed Pre-Zone designations (Fresno River, portion of property north of the river) which do not require a General Plan Amendment. Therefore, the Pre-Zone application encompasses the entire annexation area whereas the General Plan Amendment application only encompasses portions of the annexation area.

Precise Plan. The Precise Plan would be adopted as a planning and regulatory document that is to guide the development of the Granite Creek Plan Area. The Precise Plan must, as required by law, be consistent with the City's adopted General Plan. As a regulatory document, similar to the City's Zoning Ordinance of the City's Municipal Code, which specifies process, procedures, and measurable standards where applicable throughout the City, the proposed Precise Plan will serve as the regulatory ordinance (i.e., process, procedures, and standards) specific to only the

development of the Plan Area. Upon adoption the Plan would prevail over the City's Zoning Ordinance specific to development within the Plan Area. As a governing document regulating development of the Plan Area, the Precise Plan, where applicable, will be required to be compliant with the City's Municipal Code.

Tentative Subdivision Map to subdivide the approximately 60-acre parcel into 345 residential lots ranging in size from 4,500 square feet to 10,723 square feet (sf.). Approximately 60 acres of the 20-acre Plan Area is proposed for immediate residential development. The 60-acre site is proposed to be developed with 345 residential lots at approximately 6.1 dwelling units per acre and with a 1.19-acre out lot for development as a park area along with streets, lighting, and outer landscape areas to accommodate sidewalk and trail areas. The 60-acre residential development is located entirely on APN 045-070-025 and will be built over three (3) phases of development beginning at the south end of the parcel closest to Road 14-1/2. See Figure 2-3.

Project Assumptions

Although the only immediate physical development proposed by the Project includes the 60-acre TSM as described previously, this environmental document analyzes the potential buildout of the Project site, using reasonable assumptions so that future development described in the Precise Plan can tier from this EIR pursuant to CEQA Guidelines Section 15168(C)(1) and 15168(d) for evaluations of environmental issues associated with later activities/subsequent projects. Depending on the final design of future physical development, additional project specific CEQA review may be required as determined by the City through the entitlement review and approval process.

The proposed density, intensity, acreage, and realistic maximum development potential (housing units or square footage) of the Project are summarized in Table 2-2. Build out of the Granite Creek Plan Area is limited to a maximum of 1,542 residential dwelling units and approximately 612,235 square feet over approximately 204 acres. Proposed development beyond these limitations may require additional environmental review. The number of residents at full build out is estimated at 5,119 based on an average household size of 3.32. Nearly 60% of the proposed Project area is planned for residential uses, followed by 40% planned for employment uses including commercial and mixed use, and the remaining for public institutional (K-8 School Site), open space, and roadways.

**Table 2-2
Project Buildout Assumptions**

Land Use Designation	Zoning Designation	Total Acreage	Maximum Dwelling Units per Gross Acre or Maximum Non-Residential Floor Area Ratio	Maximum Development Potential
Residential Land Use Designations				
Low Density Residential	P-D (4500)	105.44	2.1 – 7.0 dwelling units	738 units
Medium Density Residential	P-D (3000)	35.35	7.1 – 15.0 dwelling units	530 units
High Density Residential	P-D (1500)	5.48	15.1 – 50.0 dwelling units	274 units
Employment Land Use Designations				
Village Mixed Use (VMU)	C-1 (Light Commercial)	10.06	0.5 Maximum Non-Residential FAR	219,106 square feet
Commercial (C)	C-N (Neighborhood Commercial)	15.19	0.3 Maximum Non-Residential FAR	198,503 square feet
Public and Semi-Public Land Use Designations				
Other Public and Semi-Public	PF (Public Facilities)	22.34	0.2 (Assumed Maximum FAR)	194,626 square feet
Open Space	RCO (Resource Conservation and Open Space)	9.74	0.2 (Assumed Maximum FAR)	84,854 square feet
TOTAL		203.60	--	1,542 units 612,235 square feet

Currently, there are no development plans to develop the 109 acres north of the Fresno River included in the proposed annexation and pre-zone entitlements, as described under the General Plan Amendment heading earlier in this section. Of the 109 acres, approximately 18 acres are developable and will be pre-zoned PD-6000 (see Figure 2-6). Any development north of the Fresno River; however, is not a part of the Project and will undergo separate environmental review when a development application is submitted to the City. For Project analysis purposes, it is estimated that full buildout will occur over a ten year period.

Infrastructure

Water

The Project will connect to the existing City water system. Per the City of Madera Water System Master Plan, adopted by City Council on November 19, 2014 via Resolution No. 14-212, the Project will install master planned water mains on Avenue 14 ½: a 12-inch between Road 23 ½ and Buena Posada Drive, and an 18-inch water main between Road 23 and Road 23 ½. An 18-inch water main will also be installed in the westerly boundary of the Project and will tie-in to the Villages at Almond Grove Development, located to the north. A new domestic well will be constructed per the Madera County Environmental Health Division regulations and will be connected to the City's existing system when the utility infrastructure is installed. The well will then be dedicated to the City. Construction of this well was accounted for in the City's 2020 Urban Water Management Plan.

The Project will comply with the California Green Building Code standards, which requires residential and nonresidential water efficiency and conservation measures for new buildings and structures that will reduce the overall potable water use inside the building by 20 percent. The Project will be required to install ultra-low flow fixtures and appliances. All development within the Project area will be required to install water meters at all service connections. The City will assess service charges based on volumetric rates and/or tiered rates, which encourages reasonable water use.

Wastewater

The City of Madera Sanitary Sewer System Master Plan identified the need for an additional sewer trunk line running down Road 23 (Road 23 Trunk) to connect to the existing Wastewater Treatment Plant (WWTP). The Road 23 Trunk will be a 30-inch line that connects to a 48-inch line running parallel to an existing 48-inch pipe on Avenue 13. Both 48-inch pipelines will connect to the existing WWTP. The 30-inch line will be approximately 16,000 (about 8,000 at the Avenue 14 ½ tie-in) linear feet (lf) and the parallel 48-inch pipe will be approximately 8,000. It was

determined that there is sufficient capacity to temporarily tie into the Westberry Boulevard Sewer Line (Westberry Trunk) until the Road 23 Sewer Trunk Line is installed. This is supported by a report from Akel Engineering, the City's consultant for their sewer master plan. The report dated December 21, 2023, and titled Sewer System Hydraulic Analysis for Granite Creek Subdivision, analyzed the possibility for the first 345 lots of the Granite Creek Development to be accommodated by the Westberry Trunk. The report indicated that the extra capacity is due in part to greater water use efficiency since the adoption of the 2014 Sewer System Master Plan.

To direct sewer flows to the Westberry Trunk, either a temporary lift station, reduced sewer slopes, or dirt fill will be utilized for the Plan area. Should a lift station be installed, it would be placed along Avenue 14 ½, on the east side of the development area, near the entrance to the initial first 345 lots. Upon the installation of the Road 23 Trunk, Granite Creek would be required to reverse sewer flows to the Road 23 Trunk and remove the temporary lift station.

The entire Project site is estimated to generate 187,000 gallons per day (gpd) of wastewater flows. Assuming seven percent inflow and infiltration, the total generated wastewater is expected to be approximately 200,000 gpd.

Stormbasin

The proposed basin will be a dual-use basin that will have a park area and a low flow area. The low flow area will have enough capacity so that a 2-year storm event can be retained without utilizing storage from the park area. The park area will only be used for storage during other major storm events. Approximately 54 acre-feet will be required to store the anticipated runoff generated from the Project area during a 100-year major storm event, while 14 acre-feet will be needed to store the 2-year storm event flows.

A smaller temporary basin will be constructed for the initial 345 units at the same location and will be gradually expanded as development occurs. The ultimate basin design will be constructed at full buildout or when conditioned by the City.

Dry Utilities (Electric and Telecommunication)

Power will be provided to the Project area by Pacific Gas and Electric Company (PG&E). The location and alignment of future electrical lines will be determined by PG&E based on the required electrical loads and existing capacity of surrounding infrastructure. Natural gas will also be provided by PG&E through the extension of existing gas distribution lines. Telecommunications will be provided through existing telephone lines and wireless communication systems.

**Figure 2-1
Location Map**



Figure 2-2
Site Aerial



Figure 2-3
Granite Creek Project Overview

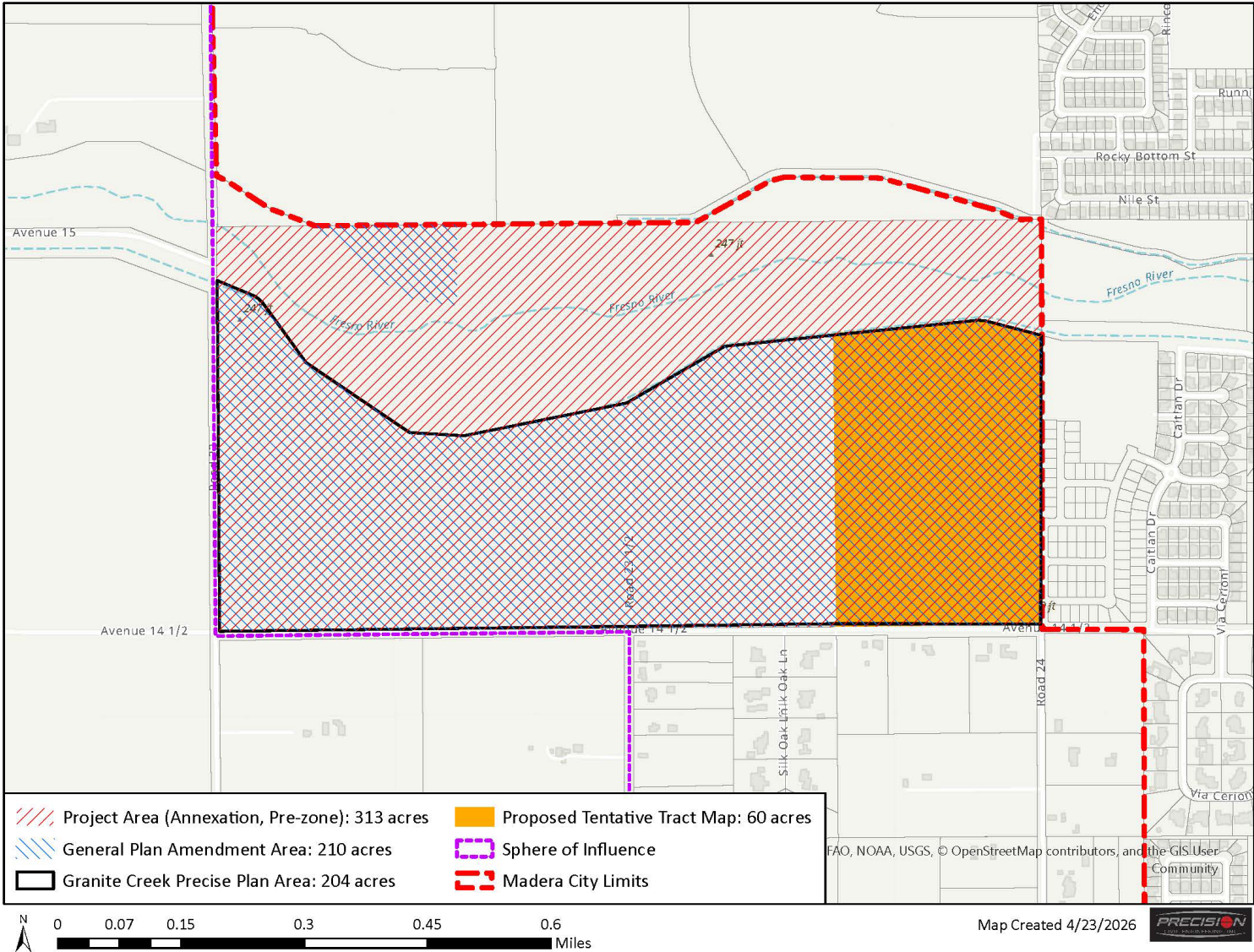
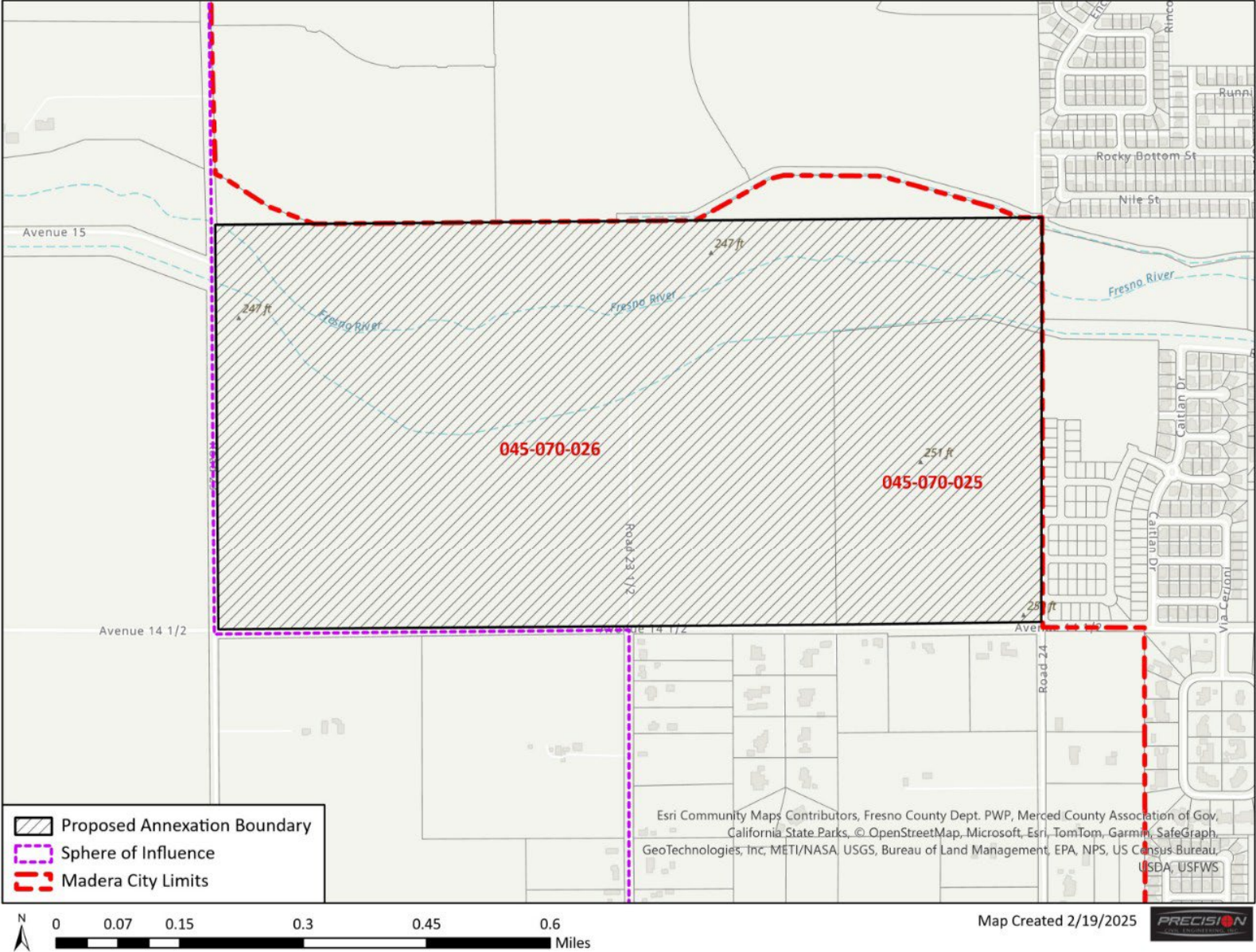
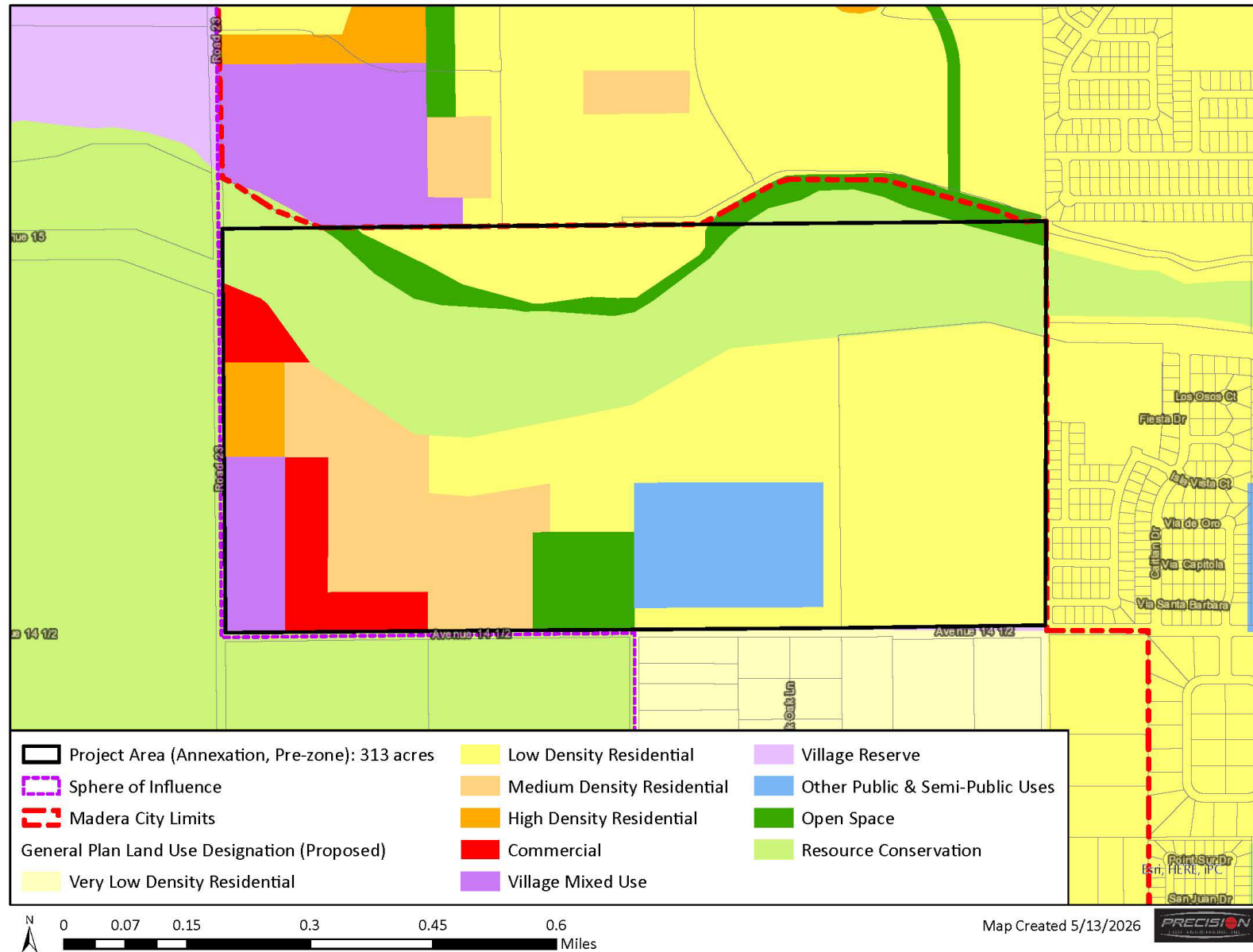


Figure 2-4
Annexation Area



**Figure 2-5
Proposed Land Use**



**Figure 2-6
Proposed Zone District Map**

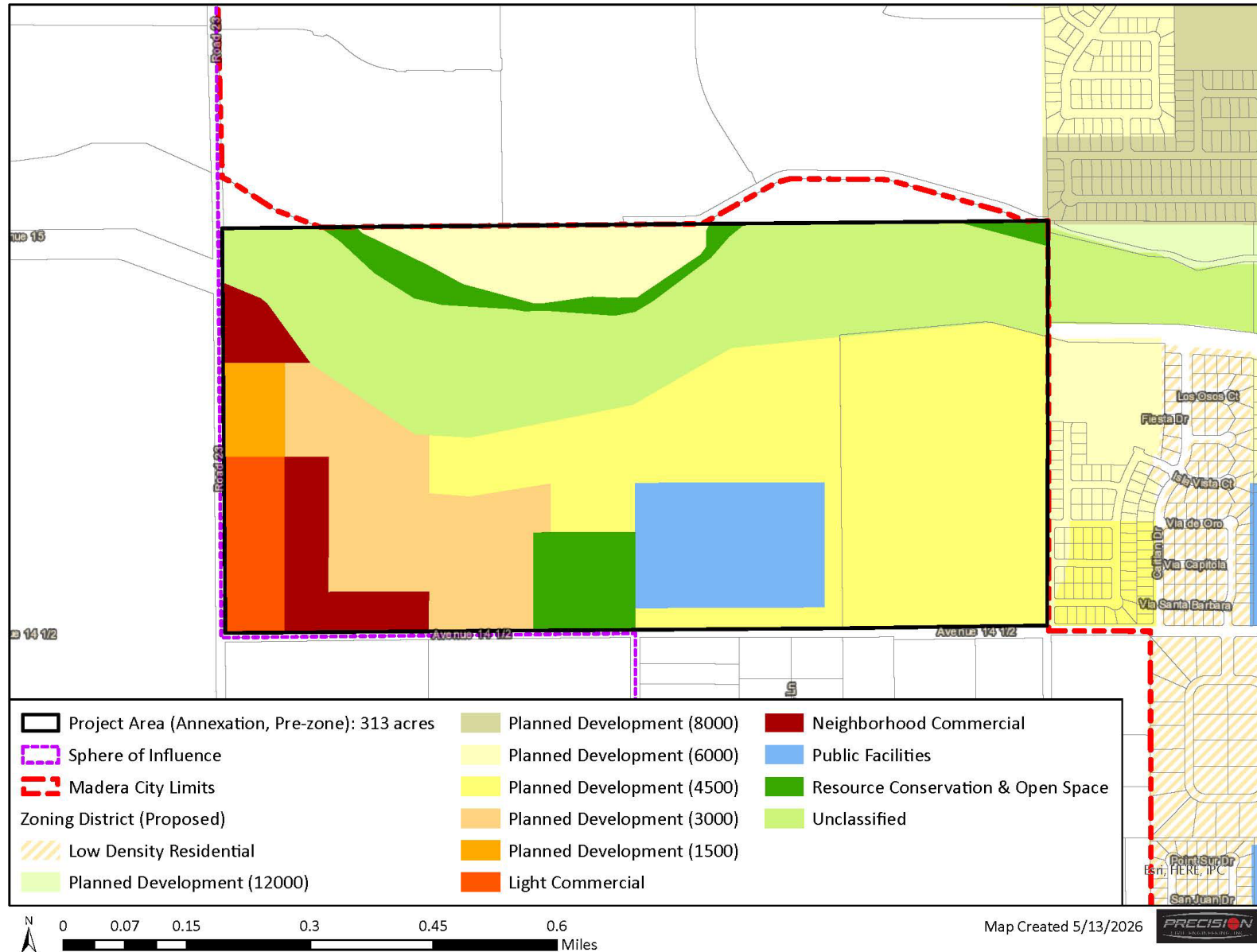
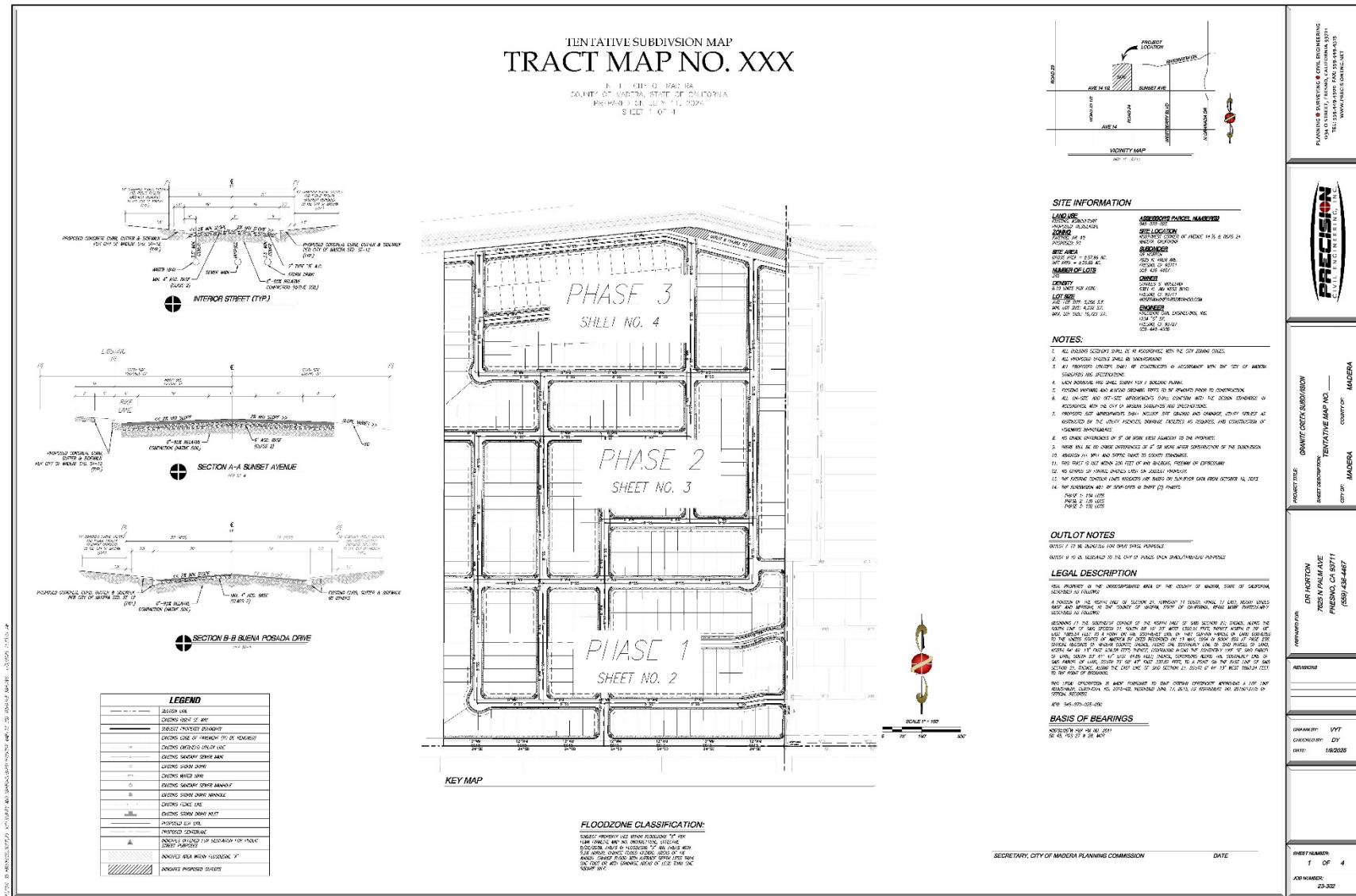


Figure 2-7
Proposed Tentative Tract Map



2.3 Project Objectives

The Granite Creek Plan Area is designed and intended to implement a series of objectives with corresponding goals and policies that will promote quality residential development. The Plan Area is intended to meet the vision of the City of Madera General Plan and further refine the guiding and implementation policies. In accordance with CEQA Guidelines Section 15124(b), the following are the City of Madera's Project objectives:

- To provide housing opportunities with a range of densities, styles, sizes and values that will be designed to satisfy existing and future demand for quality housing in the area.
- To assist the City in meeting its state-mandated Regional Housing Needs Allocation of 5,910 total units for the 2024-2032 planning period, by providing up to 1,542 new residential units, thereby contributing to the City's Housing Element goals and supporting the City's obligation to maintain an adequate inventory of sites suitable for residential development.
- To locate residential units in close proximity to employment centers and commercial services to reduce vehicle miles traveled and support regional greenhouse gas reduction goals.
- To provide a sense of community and walkability within the development through the use of street patterns, a park, landscaping and other Project amenities.
- To create a pedestrian-friendly environment with integrated trail systems and bicycle infrastructure to provide recreational opportunities near the Fresno River.
- To phase development and infrastructure to respond to marked demand while requiring infrastructure and public facilities necessary to serve the Project's needs.
- To develop a mix of retail, commercial, and civic uses in an area planned for development, to create a lively "sense of place," and provide a fiscally neutral or positive impact on the City.

2.4 Required Approvals

- Approval of a General Plan Amendment by the City of Madera
- Approval of a Pre-Zone by the City of Madera
- Approval of the Granite Creek Precise Plan by the City of Madera
- Approval of a Tentative Subdivision Map by the City of Madera

- Approval of Building Permits by the City of Madera
- Certification of an Environmental Impact Report by the City of Madera
- Annexation approval by the Madera County Land Agency Formation Committee
- Compliance with Rule 9510 by the San Joaquin Valley Air Pollution Control District
- Storm Water Pollution Prevention Plan by the Central Valley Regional Water Quality Control Board
- Compliance with other federal, state and local requirements

3.1 Aesthetics

This section of the DEIR identifies potential impacts of the Project on visual character, scenic resources, views, scenic highways and sources of light and glare. No NOP comment letters were received pertaining to Aesthetics.

Environmental Setting

Project Site and Surrounding Areas

As described in Section 2.1, the Project site is located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area consists of two (2) properties that total approximately 204 acres, generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Project site is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The Project site consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. The Project area lies within the UGB and SOI just west of the current city limit boundary. The site is currently designated by the City of Madera's General Plan as Village Reserve and is zoned by Madera County as Agricultural, Rural, Exclusive-40 (ARE-40). The Project proposes to annex the 327-acres of property into the City and would accordingly change the existing land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses as detailed in Figure 2-4. Additionally, the proposed zoning would include approximately: 5.48 acres of P-D (1500), 35.35 acres of P-D (3000), 105.44 acres of P-D (4500), 18.27 acres of P-D (6000), 10.06 acres of C-1 (Light Commercial), 15.19 acres of C-N (Neighborhood Commercial), 22.34 acres of PF (Public Facilities), 23.70 acres of RCO (Resource Conservation and Open Space), and 91.61 acres of Unclassified zoning (Fresno River) as shown on Figure 2-6.

Madera is part of the Central Valley province, one of several geomorphic provinces in California. The Central Valley is in a basin bounded by the Sierra Nevada foothills and mountains to the east and the Coast Ranges to the west, and is filled with deep layers of sediment from the Sierra Nevada. The Project area is essentially flat, lying at an elevation of approximately 250 feet above sea level.

The Project site currently consists of an irrigated, maintained almond orchard and vineyard, as well as an area of disturbed land in the north-central portion, as of the December 2024 reconnaissance survey performed on behalf of the Project by Colibri Ecological Consulting. Ruderal herbaceous

vegetation was found distributed throughout the Project site. The disturbed area in the north-central portion of the Project site contained piles of tree limbs, a felled tree, and bricks and other debris. The site is bordered by a Madera Irrigation District canal and the Fresno River to the north, rural residential development and idle agricultural lands to the south, an orchard to the west, and a residential development under construction to the east. Aerial imagery indicates the Project site has been used for agricultural production since at least 1985.

Refer to Site Photographs 1 – 7 for representative pictures of the Project site and surrounding areas.



Photograph 1: Views from the north-central portion of the Project site, looking southwest, showing a vineyard and irrigation equipment.



Photograph 2: Views from the southeast portion of the Project site, looking northwest, showing a vineyard and an almond orchard.



Photograph 3: Views from the south-central portion of the Project site, looking northwest, showing a vineyard and an almond orchard.



Photograph 4: Views of debris in the north-central portion of the Project site, looking southwest.



Photograph 5: Views showing ground squirrel burrows along the canal in the north-central portion of the Project site, looking north.



Photograph 6: Views showing ground squirrel burrows in the almond orchard in the northeastern portion of the Project site, looking southeast.



Photograph of a Madera Irrigation District canal and the Fresno River (top right) north of the Project site, looking northwest.

Regulatory Setting

Federal Regulations

There are no applicable federal regulations, plans or policies pertaining to aesthetics that are applicable to the Project.

State Regulations

Title 24 Outdoor Lighting Standards

The 2025 Title 24 Outdoor Lighting Standards were adopted by the State of California Energy Commission (CEC) (Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards) went into effect on January 1, 2026. The changes included adjustments and clarifications for lighting and lighting controls, including removal of the Tailored Method as a compliance method, and other changes.

Scenic Highway Program

The California Scenic Highway Program was established by the state Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. The state laws governing the scenic highways program are found in the Streets and Highways Code Sections 260-263.

State Scenic Highways

According to the California Department of Transportation Scenic Highway Program, there are no designated State Scenic Highways within the Project area or in the City of Madera's General Plan or Madera County's General Plan.

Local Regulations

Scenic Views

Scenic views provided by the Sierra Nevada to the east and much of the rural agricultural land surrounding the City is beyond Madera's jurisdiction. Madera County retains sole jurisdiction outside the City of Madera's Sphere of Influence (SOI). The City of Madera has authority for land use decisions that could affect scenic views within City limits or on land in the SOI that would be

urbanized under the General Plan. Caltrans has jurisdiction over the design of its facilities, and Madera Irrigation District (MID) retains control over its canals within the City. While the City of Madera does not contain any designated scenic highways or scenic resources within the Planning Area, both State Route 99 and State Route 145 pass through agricultural and rural lands. Many of the Planning Area roads pass through these agricultural lands and potentially provide views of the mountain ranges to the east.

Madera General Plan

The City of Madera General Plan includes goals and policies related to aesthetics and scenic resources. Those that apply to the project are listed below, including Specific Policies which apply only to land uses given the designation 'Village Reserve'.

CD-1: The City of Madera will require that all new development is well-planned and of the highest possible quality. The City will seek to build an image of Madera as a contemporary small city with vibrant, livable neighborhoods and walkable pedestrian- and bicycle- oriented development.

CD-2: All new development shall adhere to the basic principles of high-quality urban design, architecture and landscape architecture including, but not limited to, human-scaled design, pedestrian orientation, interconnectivity of street layout, siting buildings to hold corners, entryways, gathering points and landmarks.

Action Item CD-2.1: Adopt a set of comprehensive Design Guidelines to establish basic design standards and criteria for public and private development projects.

CD-3: Madera will strive to continuously improve the architectural quality of public and private projects. Developers proposing to rely on the use of "standard designs" or "corporate architecture" will be required to improve their designs as necessary to meet the City's overall standards for quality.

CD-4: Site layout and building design shall take into consideration Madera's warm, dry climate, by including trees, landscaping and architectural elements to provide shade.

CD-5: New development shall be approved only if it meets the design principles set forth in this Community Character Element and to any local, project specific, or citywide design guidelines.

CD-6: The City of Madera will take a leadership role in promoting design excellence by requiring that all City-sponsored projects reflect the highest standards of design.

CD-7: All new development projects requiring site plan approval, shall establish landscape and façade maintenance programs for the first three years, ensuring that streetscapes and landscapes areas are installed and maintained as approved.

CD-8: In order to improve and protect the quality of neighborhoods and commercial districts, the City will enforce established building codes and community standards.

Action Item CD-8.1: Review and update building codes and inspection procedures, incorporating community maintenance standards and assistance programs as needed.

CD-14: New residential development shall be designed with street networks and housing types that are oriented to and take access from local streets, except where physically limited by existing conditions. Avoid designs which face homes onto local/branch collectors, collectors, arterials or larger roadways.

CD-20: The comprehensive planning of Villages shall include the creation of consistent design themes for each Village area that are specific to the Village but consistent with overall City standards.

CD-21: Create safe, inviting, and functional pedestrian and cyclist environments in commercial, office, and mixed-use projects through a variety of techniques, including:

- Planting trees to provide shade on pedestrian paths, sidewalks, and walkways;
- Safe, separated pedestrian walkways;
- Safe, visible bicycle parking;
- Shaded walkways;
- Wide sidewalks.

CD-27: Wherever possible, residential subdivisions shall provide vehicular and pedestrian connections to adjacent subdivisions. New residential subdivisions should not be designed as separated from other neighborhoods by walls or other features.

CD-28: New development projects should be designed on a traditional or curvilinear grid street system. Cul-de-sacs may only be used within the grid so long as the objective of pedestrian and bicycle connectivity is achieved.

Action Item CD-28.1: Develop and adopt updated cul-de-sac standards defining maximum length, minimum width, etc.

LU-11: The City specifically envisions the establishment and maintenance of a greenbelt of agricultural and other open space lands around the urbanized portion of the Planning Area, outside the Growth Boundary, as shown on the Land Use Map. In addition to the maintenance of appropriate agricultural land use designations, the City encourages the use of Williamson Act contracts and similar mechanisms to ensure the maintenance of the greenbelt. Along the west edge of the Planning Area, the greenbelt is intended to be permanent, and the implementing mechanisms on the west edge should reflect that intent, including transfer of development rights, permanent conservation easements, etc. (See specific policies for Villages D & E for requirements to establish a permanent edge/buffer on the western boundary of these Villages).

LU-20: New residential development should be designed to avoid continuous blocks or clusters of dwellings that are connected only by streets, sidewalks, and hardscape. New development shall incorporate amenities which establish a sense of identity at the project or neighborhood level, create opportunities for community interaction, and enhance the visual appeal of the area. Features which accomplish these goals may include pathways, paseos, parks, community gardens, and other semi-public gathering places.

LU-33: Reflecting the community's desire for a more livable, walkable, and sustainable community, Madera's future growth shall be based on the Building Block concept of Neighborhoods, and Villages. In addition, two Districts have been established for specific areas of Madera (the Downtown and the Airport North districts) which don't conform to typical neighborhood and village concepts, but do possess unique features that should make them the subject of future, more detailed planning efforts.

Each type of Building Block is described below; these discussions are intended to be used as guidelines, not as specific requirements or targets.

Neighborhoods

A Neighborhood is a compact, walkable residential area, generally 1/3 to 1/2 mile in radius, as this is the distance an average person would comfortably walk or bicycle. In some of the planned Village areas, this overall dimension will be larger, due to the existing settlement pattern.

Neighborhoods will generally be developed at overall densities of 6-8 du/ac, although some will be lower in density due primarily to the existing low-density settlement pattern. In general, the density near the core of a Neighborhood or where the Neighborhood adjoins a Village Center will be higher than at the edges of the Neighborhood.

At the core of each Neighborhood is the Neighborhood Center, a small scale, neighborhood serving activity center. Neighborhood Centers are gathering places where people can congregate and interact. Typical Centers include schools (elementary and middle/junior high schools), libraries, community centers, parks that feature activity elements (i.e. playground and tennis court(s) and basketball court(s)), or neighborhood-serving commercial uses (small market, coffee shop, small restaurant, etc.; total square footage is less than 10,000 sq ft).

The following general criteria describe Neighborhoods and Neighborhood Centers. As noted above, these are intended to be used as guidelines, not as specific requirements or targets.

Neighborhoods:

Size: 1/3 to 1/2 mile in radius (about 200 to 500 acres)

Population: About 4,000 persons

Residential Density: 6-8 du/ac overall

Notes:

- A variety of densities will occur in each Neighborhood; overall density will be lower in areas where existing settlement patterns preclude achieving this density.
- Overall density includes housing built in the Neighborhood Center.

Neighborhood Centers

Size: About 1-5 acres

Area Served: Neighborhood (about 200 acres)

Population Range Served: About 4,000 people

Typical Range of Building Height: 1-2 stories

Villages

A Village is collection of three to four Neighborhoods. Villages should feature a mix of residential dwelling types, including the single-family areas found in the Neighborhoods and multifamily development near the center and strategically dispersed in single-family areas.

At the center of each Village is the Village Center. Village Centers serve the daily needs of their service areas and are spaced 1 ½ to 2 miles apart for adequate distribution around the City. They are primarily commercial places, featuring stores, offices, restaurants, and services. Multiple tenants in a pedestrian-friendly commercial development make up the character of the Center, featuring small to medium size grocery stores, drug stores, and restaurants. Single tenant retail size is developed at a maximum of approximately 50,000 square feet so that retail concentrates its services on its own Village and is not aimed at a regional market.

Residential uses may be developed in conjunction with the retail and/or office tenants/spaces, typically at a density of 6 to 12 du/ac. Village Centers are often developed with higher density residential sites immediately adjacent.

The following criteria apply to Villages and Village Centers. As noted above, these are intended to be used as guidelines, not as specific requirements or targets.

Village:

Size: About 800 – 1,200 acres

Population: About 15,000 persons

Residential Density: 6-8 du/ac overall

Village Center:

Size: About 5 to 10 acres

Area Served: About 800 acres

Population Range Served: About 15,000 people

Typical Range of Building Height, on-site: 1-3 stories

Residential Density in or near the Village Center: 8-18 du/ac

LU-34: All planning for areas designated on the Land Use Map as “Village Reserve” shall implement the 3-step planning process described below:

Step 1: Comprehensive Land Use and Implementation Planning

Step 2: Detailed Neighborhood Plans

Step 3: Development Proposals

This planning process is intended to provide progressively more detailed plans for Village Reserve areas, Neighborhoods, and individual development projects.

The following general rules apply to this planning process:

- Each step in the planning process may be initiated by the City of Madera or by another private or public sector applicant(s).
- Each step in the planning process must be completed as a prerequisite for the next step. However, multiple steps (1+2 or 1+2+3 or 2+3) may be undertaken simultaneously. As a general rule, the City would expect that a private applicant would submit a Comprehensive Land Use and Implementation Plan and its components (Step 1), together with a Neighborhood Plan (Step 2) for at least one neighborhood, as the initial submittal.
- At the Comprehensive Land Use and Implementation Plan and Neighborhood Plan level, the participation of all affected property owners is encouraged, but not required. A private sector applicant submitting either type of plan must include a list of all affected owners and their property(ies) and must show how their participation was sought.
- In some Village areas (as mapped and defined in this Land Use Element), the Village Reserve designation applies only to a portion of the Village. In this case, the process outlined below is required only for the Village Reserve areas, not to the entire Village. However, submitting plans that cover the entire Village is permitted.

In some Village Reserve areas, a Village Center is not required. See the detailed policies for the affected Village area (later in this Land Use Element) for further information.

In addition to the required plans, maps, reports, etc., the City may at its discretion require other items as needed to address issues in any particular Village. These may include additional environmental analysis, traffic studies, biological studies, noise studies, etc.

Action Item LU-34.1: Establish and make available procedural guidelines detailing the three-step village reserve planning process.

LU-35: Figure LU-3 depicts the Village and District areas as defined by the City of Madera. This map shall be used to implement other policies in this General Plan which refer to villages and village centers. Although shown as defined lines, the exact boundaries of a village may be adjusted at the City's discretion to reflect conditions on the ground, ownership boundaries, or other conditions. Such a change shall not be considered an amendment to this General Plan.

Village E: West Madera

General Description: This Village is located in the west-central portion of the Planning Area, and contains many of the city's newer residential neighborhoods and retail districts (including Howard Road). Almost all of the land in this Village which is in the current (2008) city limits has been developed; the portion which is outside the city limits is less developed and retains some agricultural uses and conservation easements.

Area of this Village in the City Limits: 1,839 Acres

Area of this Village in the Sphere of Influence: 1,105 Acres

Area of this Village in the Planning Area only: 97 Acres

Total Area: 3,041 Acres

The Fresno River runs along the northern boundary of this Village and should continue to be viewed as an amenity in conjunction with the development and redevelopment of property along its frontage.

Lions Town and Country Park constitutes a significant public amenity within Village E, located at the intersection of Howard Road and Granada Drive. This park facility functions as a gathering place for surrounding neighborhoods; an undeveloped commercially designated parcel at the same intersection creates the opportunity to add a commercial venue at this central location. Aside from these

features, there are few opportunities to establish new neighborhood centers due to the relatively built-up condition of the residential areas within the Village. Existing retail development along Howard Road functions as the commercial core for this Village and presents shopping opportunities within walking and biking distance to a large area, although it may not conform to the typical characteristics of a Village Center.

The railroad spur line that serves Madera's southeastern industrial area passes through this Village. Although not as busy as the main line parallel to Hwy 99, this rail line creates some potential noise and safety impacts.

Village E: Specific Policies

The following policies are intended to identify some of the unique issues for this area which will need to be addressed, and to guide development, as the area transitions to urban use.

- Future development along the Fresno River should be designed to take advantage of the river frontage, including orienting development to front the river where not otherwise prohibited by site conditions.
- In conjunction with village and neighborhood planning for the village reserve at the northwest corner of Village E, a mechanism shall be established which creates a permanent agricultural buffer where the westerly edge of the Village abuts the Growth Boundary. This buffer shall average at least 400' in depth, with a minimum depth of 250', and must run continuously along westerly edge of the Village. No habitable structures are to be located within this buffer, although passive recreational opportunities (such as trails), and community gardens may be allowed. Alternative methods and designs to establish the buffer may be proposed, and including placing the buffer on either side of the Growth Boundary. Physical maintenance of the buffer shall be provided, consistent with the design and function of the space.
- The westerly neighborhood of Village E generally lies west of existing conservation easements which are intended to represent the westerly limit of urban growth in this area. The City does not intend to intensify the existing pattern of rural residential lots in this area, and the extension of infrastructure to serve new development in this area is not permitted. While larger "farmable" parcel sizes outside the urban area are preferable, the existing land use pattern

significantly limits commercial farming opportunities. Due to the unique conditions in this neighborhood, the City will encourage the County to limit parcel sizes to five acres or larger. In the event this area is annexed into the City, the minimum parcel size permitted by the City in this neighborhood will be five acres.

- Individual uses proposed in proximity of the rail spur which passes through Village E shall take into consideration the circulation and noise impacts created by the rail line. The policies of the noise ordinance addressing transportation-related noise and mitigation preferences will be applied to projects in the vicinity of the spur.

PR-6: The City encourages the integration of parks and other facilities in the master-planning of development projects. Proposed parks on remnant parcels or otherwise unusable land which do not meet the City's standards will not be accepted by the City as a park by the City and do not count toward the City's parkland standard in Policy PR-1. They may become Non-Public Park facilities if there is a permanent maintenance mechanism provided, such as a landscape maintenance district.

PR-10: The City shall require new residential development projects, including mixed use projects with residential components, to dedicate land and/or pay in-lieu fees to contribute to the acquisition and development of parks or recreation facilities. The determination of which method (land dedication and/or payment of in-lieu fees) is appropriate shall be made at the City's sole discretion.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Appendix G Checklist:

- Have a substantial adverse effect on a scenic vista?
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Impacts and Mitigation Measures

Impact 3.1-1: *Have a substantial adverse effect on a scenic vista?*

Less than Significant Impact. A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The Sierra Nevada Mountains are the only natural and visual resource in the Project area. Views of these distant mountains are afforded only during clear conditions due to poor air quality in the valley. Distant views of the Sierra Nevada Mountains would largely be unaffected by the development of the Project because of distance from the mountains and limited visibility of these features under current conditions. In addition, the Project would not substantially impede these existing views of the mountains from adjacent viewpoints because of the expected low-profile nature of the development and because of the lack of existing urban development adjacent to the site that currently have views of the mountains. The City of Madera does not identify views of these features as required to be “protected.”

The Project site is currently being utilized for agricultural purposes. However, the site is within a developing area planned to be part of the City of Madera and is designated by the General Plan as Village Reserve. The proposed entitlements, upon approval, would allow the City to expand the City Limits in a manner that has little impact on scenic vistas or other protected scenic resources on or near Madera. Therefore, the Project has a *less than significant impact* on scenic vistas.

Visual character of the site is addressed further in Response 3.1-3 below.

Mitigation Measures: None are required.

Impact 3.1-2: *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Less Than Significant Impact. See Response to Impact 3.1-1, above. In addition, there are no rock outcroppings or historic buildings located on or near the site. The majority of the Project site is currently in the agricultural production of grapevines and almond trees, which will be removed prior to Project development. There are no designated scenic highways in the City of Madera Planning Area. Both State Route 99 and State Route 145 pass through agricultural and rural lands and have the potential to provide views of the distant Sierra Nevada mountains to the east and the Coastal Ranges to the west. However, these stretches of highway are not in the vicinity of the Project area. Thus, the Project would not impact any scenic resources associated with State Route

99 or 145, should they be granted Designated Status in the future. Because there are no scenic resources, trees, rock outcroppings, historic buildings or scenic highways, there is a *less than significant impact*.

Mitigation Measures: None are required.

Impact 3.1-3: *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Significant and Unavoidable. The Project is located in an area that is planned for, and is undergoing urban development. The Project Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The area to the east is currently occupied by the Vineyard West Phase II Subdivision. The Project area is generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23. The site is planned for urban development under the City's General Plan and is designated as Village Reserve. However, the site has historically been used for agricultural purposes and is currently undeveloped. Implementation of the Project will alter the visual character of the Project site from historically agricultural uses to urban development. This includes residential housing and commercial components, with the remainder being reserved for public institutional (K-8 school site), open space and roadways. New development would incrementally reduce views to open agricultural land now available to some residents and travelers on adjacent roadways. Visual changes caused by a project are evaluated in terms of their visual contrast with the area's predominant landscape elements and features, their dominance in views relative to other existing features, and the degree to which they could block or obscure views of aesthetically pleasing landscape elements. Although this land use conversion could be perceived by some as a negative aesthetic impact in comparison with the Project site's current pastoral appearance, based upon the subjective nature of aesthetics, the City does not anticipate that the development of the Project with residential and commercial uses will create a substantially degraded visual character or quality to the Project site or to the properties near and around the Project site. The improvements such as those proposed by the Project are typical of suburban development and are generally expected from residents of the City. The Project would be similar in visual appearance to existing developments found throughout the City.

The Project design is subject to the City's Design Guidelines adopted for the City's General Plan which apply to site layout, building design, landscaping, interior street design, lighting, parking and signage. Detailed architectural plans, color palettes and building materials as well as landscaping plans will be submitted by the Project developer to the City. The plans shall be required prior to issuance of any building permits.

The Project will be in compliance with the policies of the City of Madera General Plan, the City Design Guidelines and development standards referenced above in the Regulatory Setting, to ensure integration of new homes and non-residential structures in an aesthetically pleasing manner within the proposed development. However, the Project would result in a substantial permanent alteration of the existing visual character of the site and its surroundings. Because the Project replaces agricultural land with suburban development, the change in visual scale and intensity would represent a significant impact on the existing aesthetic environment. This change is considered a *significant, unavoidable and irreversible impact*.

Mitigation Measures: None are available.

Impact 3.1-4: *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less Than Significant Impact. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The

presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Currently the sources of light in the Project area are from streetlights, vehicles traveling along adjacent roadways, and lights from housing in the area. The Project would include nighttime lighting such as streetlights, residential outdoor lighting, vehicle lights, commercial facility lighting, and other similar lighting sources.

Additional night lighting sources on the Project site, especially any unshielded light, could result in spillover light that could impact surrounding properties. This would create new sources of light that could potentially have a significant impact on nighttime light levels in the area.

The City's supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of all private buildings and projects, including but not limited to controlling nighttime lighting to lower energy use, reduce glare, and prevent illumination of the night sky. Lighting design would be required to comply with the Madera Municipal Code, which contains specific, enforceable requirements and/or restrictions intended to prevent light and glare impacts. Compliance with Title 24 lighting requirements cover outdoor spaces including regulations for mounted luminaires (i.e., high efficacy, motion sensor controlled, time clocks, energy management control systems, etc.).

During the entitlement process, the Project will be required to provide documentation demonstrating compliance with the City's policies and Title 24 pertaining to light and glare and City staff will review lighting plans to ensure that lighting plans will minimize spill-over light on neighboring properties. Thus, the Project will have a *less than significant impact* on light and glare.

Mitigation Measures: None are required.

Cumulative Impacts

Would the project make a cumulatively considerable contribution to a significant cumulative impact related to scenic vistas, scenic resources, or the existing visual character of the area, including the introduction of light and glare?

Cumulatively Considerable. The scope for considering cumulative impacts to aesthetics includes the viewshed of the Project and the areas surrounding the Project site from which the Project could be visible to viewers in the area. As described above, the Project will result in significant aesthetic impacts with respect to the existing visual character of the Project site. The landscape in western Madera has been changing over the years from one of generally rural residential and agricultural uses to urban uses. Construction of future projects in the area allowed under City of Madera and Madera County General Plans would be required to be in compliance with the numerous policies and programs related to the preservation and enhancements of viewsheds and the protection of scenic resources, which will help ensure that projects are consistent with the character envisioned for these areas.

Several land development proposals envisioned by the City of Madera and Madera County General Plans, and individual project proposals, have received their entitlements, or are seeking them in the area. The western Madera area and its immediate environs are, therefore, the area affected by cumulative impacts as the area of geographical visual analysis notwithstanding their consistency with adopted plans, because the planned development would change the existing character of the area from primarily agricultural to a more suburban development pattern.

Although the urban environment that is ultimately built could be aesthetically pleasing to many, these cumulative changes will significantly modify the existing visual character and quality of the area. Based on this EIR's standards of significance, the cumulative impacts of the Project and related projects are *significant and unavoidable*, and the Project's development would make a cumulatively considerable contribution to this impact considering the Project's size and scope.

3.2 Agricultural Resources

This section of the DEIR identifies potential impacts of the Project pertaining to Agricultural Resources. One NOP comment letter was received pertaining to Agricultural Resources, which was from the California Department of Conservation. The letter provides recommendations regarding mitigating agricultural loss or conversion. The agricultural loss discussion is provided in Impact 3.2-1 below.

Environmental Setting

As described in Section 2.1, the Project site is located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area consists of two (2) properties that total approximately 204 acres, generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Project site is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The Project site consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. The Project area lies within the UGB and SOI just west of the current city limit boundary. The site is currently designated by the City of Madera's General Plan as Village Reserve and is zoned by Madera County as Agricultural, Rural, Exclusive-40 (ARE-40). The Project proposes to annex the 313-acres of property into the City and would accordingly change the existing land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses as detailed in Figure 2-4. Additionally, the proposed zoning would include approximately: 5.48 acres of P-D (1500), 35.35 acres of P-D (3000), 105.44 acres of P-D (4500), 18.27 acres of P-D (6000), 10.06 acres of C-1 (Light Commercial), 15.19 acres of C-N (Neighborhood Commercial), 22.34 acres of PF (Public Facilities), 18.73 acres of RCO (Resource Conservation and Open Space), and 85.59 acres of Unclassified zoning (Fresno River). as shown on Figure 2-6.

The surrounding area consists of single family and rural residential developments, and vacant or agricultural land. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) has designated the surrounding area as Urban and Built-Up Land, Rural Residential Land, Grazing Land, Nonagricultural or Natural Vegetation and Farmland of Statewide Importance. The Project site does not contain land under Williamson Act Contract, however, the FMMP has designated the site as Prime Farmland and Farmland of Statewide

Importance.¹ The Project development site is currently being utilized for almond orchards and vineyards.

The Project site does not contain any land defined as forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or land zoned Timberland Production (as defined by Government Code section 51104(g)).

Regulatory Setting

Federal Regulations

Farmland Protection Policy Act

The federal Farmland Protection Policy Act, part of the Agriculture and Food Act of 1981, was passed in response to the National Agricultural Land Study of 1980-1981, which found that millions of acres of farmland were being converted in the U.S. each year and a related report which found that much of this conversion was the result of programs funded by the federal government. The intent of the Act is to minimize the impact that federal programs have on unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that – to the extent possible – federal programs are administered to be compatible with state and local government and private programs and policies to protect farmland.

State of California Regulations

Farmland Mapping and Monitoring Program

The California Department of Conservation uses the Natural Resources Conservation Service soil classifications to classify agricultural lands under the Farmland Mapping and Monitoring Program (FMMP). The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. These designated agricultural lands are included in the farmland maps used in planning for the present and future of California's agricultural resources. The California Department of Conservation has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding

¹ Department of Conservation, California Important Farmland Finder. <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed February 2026.

classifications. The categories are described below. In addition to mapping existing farmland, the FMMP provides analysis of agricultural land use changes throughout California.

California Public Resources Code Section 21060.1 defines agricultural land for the purposes of assessing environmental impacts. Collectively, land classified as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is referred to as “agricultural land.” These same classifications of farmland are described as Important Farmland under the FMMP and are also used in CEQA Guidelines Appendix G as the farmland classifications on which impacts on agricultural resources are to be evaluated.

Prime Farmland. This farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply necessary to produce sustained high yields. To be classified as Prime Farmland, the land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Unique Farmland. This is farmland of lesser quality soils used for the production of the state’s leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. The land must have been cropped at some time during the four years prior to the mapping date.

Farmland of Statewide Importance. This is farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Farmland of Local Importance. This is farmland of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.

Grazing Land. Grazing land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum contiguous mapping area for Grazing Land is 40 acres.

Urban and Built-up Land. Land occupied by structures with a building density of at least one building unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public and transportation uses, and other developed purposes.

Other Land. Land not included in any other mapping category, including low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing;

animal confinement facilities; mines; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use as a means of preserving California's prime agricultural lands from urbanization. Prime Farmland under the Williamson Act includes land that qualifies as Class I and II under the Natural Resources Conservation Service classification of land. Through the voluntary contracts between landowners and a city or county, the owners agree to retain their lands in agricultural or other open space uses for a minimum of 10 years.

In return for entering into a Williamson Act contract, landowners receive property tax relief on the lands under contract. This relief is provided through the assessment of lands based upon their income-producing value rather than their market value, which may be considerably higher. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. The Project site contains no lands that are subject to a Williamson Act Contract.

Local Regulations

Madera County General Plan

The Madera County General Plan has a number of policies that apply to projects within the County of Madera.² The following General Plan policies apply to the Project: Policies designed to promote future development patterns that focus growth within established community areas and to mitigate loss of agricultural lands include the following:

General Land Use

- 1.A.1.** The County shall promote the efficient use of land and natural resources.

² Madera County General Plan Policy Document, adopted October 24, 1995.

<https://www.maderacounty.com/home/showpublisheddocument/40825/638615574804870000>. Accessed February 2026.

- 1.A.2.** The County shall designate sufficient land to accommodate projected population and employment growth in Madera County.
- 1.A.3.** New development should be centered in existing communities and designated new growth areas.
- 1.A.4.** The County shall encourage infill development and development contiguous to existing cities and unincorporated communities to minimize premature conversion of agricultural land and other open space lands.
- 1.A.6.** The County shall promote patterns of development that facilitate the efficient and timely provision of infrastructure and services.
- 1.A.8.** The County shall require that new rural and suburban development be designed to preserve and maintain the rural character and quality of the county.

Agriculture

- 5.A.1.** The County shall maintain agriculturally-designated areas for agricultural uses and direct urban uses to designated new growth areas, existing communities, and/or cities.
- 5.A.2.** The County shall discourage the conversion of prime agricultural land to urban uses unless an immediate and clear need can be demonstrated that indicates a lack of land for non-agricultural uses.
- 5.A.5.** The County shall allow the conversion of existing agricultural land to urban uses only within designated urban and rural residential areas, new growth areas, and within city spheres of influence where designated for urban development on the *General Plan Land Use Diagram*.
- 5.A.13.** The County shall require development within or adjacent to designated agricultural areas to incorporate design, construction, and maintenance techniques that protect agriculture and minimize conflicts with adjacent agricultural uses.

City of Madera General Plan

The City of Madera's General Plan has a number of policies that apply to agricultural lands. Policies designed to promote future development patterns that focus growth within established community areas and to mitigate loss of agricultural lands include the following:

- CON-15** The City will seek to protect land in the Planning Area which is designated for Agricultural and Resource Conservation, and will encourage the County of Madera to do the same. Measures the City will use (and encourage the County to use) include:
- Maintaining parcels large enough to sustain agricultural production (preferably a minimum of 20 acres);
 - Preventing the premature conversion of agricultural uses; and
 - Prohibiting uses that are incompatible with long term agricultural production.
- CON-18** The City recognizes that some agricultural soils in the city and the Planning Area are proposed for future urban development; in these cases, the following apply:
- Agricultural use should be allowed to continue as long as possible.
 - The purchase of fee interest, easements, or other measures which would have the effect of permanently precluding the planned conversion to urban uses consistent with the Land Use Map of this General Plan should be avoided.
- LU-10** The Growth Boundary is considered by the City to define the physical limits of development in Madera. The City shall direct all future growth in Madera and in the unincorporated area outside the city limits to occur inside the Growth Boundary shown on the Land Use Map in this General Plan. Within the City's Planning Area, the City encourages the County to assist the City in maintaining an agricultural greenbelt around the Growth Boundary by limiting the use of land designated for Agriculture on the City's General Plan Land Use map to agriculture.
- The following apply to the Growth Boundary:
- The Growth Boundary may only be revised as part of a comprehensive update of the General Plan involving, at a minimum, the Land Use and Circulation elements.
 - Any revision to the Growth Boundary shall be accompanied by a statement of findings which demonstrate the following:
 - 1) That the revision is consistent with the intent of the Growth Boundary and all other applicable policies in this General Plan;
 - 2) That the revision is necessary to accommodate planned growth in Madera.
- LU-11** The City specifically envisions the establishment and maintenance of a greenbelt of agricultural and other open space lands around the urbanized portion of the Planning Area, outside the Growth Boundary, as shown on the Land Use Map. In addition to the maintenance of appropriate agricultural land use designations, the

City encourages the use of Williamson Act contracts and similar mechanisms to ensure the maintenance of the greenbelt. Along the west edge of the Planning Area, the greenbelt is intended to be permanent, and the implementing mechanisms on the west edge should reflect that intent, including transfer of development rights, permanent conservation easements, etc. (See specific policies for Villages D & E for requirements to establish a permanent edge/buffer on the western boundary of these Villages).

LU-20 New residential development should be designed to avoid continuous blocks or clusters of dwellings that are connected only by streets, side walks, and hardscape. New development shall incorporate amenities which establish a sense of identity at the project or neighborhood level, create opportunities for community interaction, and enhance the visual appeal of the area. Features which accomplish these goals may include pathways, paseos, parks, community gardens, and other semi-public gathering places.

LU-33 Reflecting the community's desire for a more livable, walkable, and sustainable community, Madera's future growth shall be based on the Building Block concept of Neighborhoods, and Villages. In addition, two Districts have been established for specific areas of Madera (the Downtown and the Airport North districts) which don't conform to typical neighborhood and village concepts, but do possess unique features that should make them the subject of future, more detailed planning efforts.

Each type of Building Block is described below; these discussions are intended to be used as guidelines, not as specific requirements or targets.

Neighborhoods

A Neighborhood is a compact, walkable residential area, generally 1/3 to 1/2 mile in radius, as this is the distance an average person would comfortably walk or bicycle. In some of the planned Village areas, this overall dimension will be larger, due to the existing settlement pattern.

Neighborhoods will generally be developed at overall densities of 6-8 du/ac, although some will be lower in density due primarily to the existing low-density settlement pattern. In general, the density near the core of a Neighborhood or where the Neighborhood adjoins a Village Center will be higher than at the edges of the Neighborhood.

At the core of each Neighborhood is the Neighborhood Center, a small scale, neighborhood serving activity center. Neighborhood Centers are gathering places where people can congregate and interact. Typical Centers include schools (elementary and middle/junior high schools), libraries, community centers, parks that feature activity elements (i.e. playground and tennis court(s) and basketball court(s)), or neighborhood-serving commercial uses (small market, coffee shop, small restaurant, etc.; total square footage is less than 10,000 sq ft).

The following general criteria describe Neighborhoods and Neighborhood Centers. As noted above, these are intended to be used as guidelines, not as specific requirements or targets.

Neighborhoods:

Size: 1/3 to 1/2 mile in radius (about 200 to 500 acres)

Population: About 4,000 persons

Residential Density: 6-8 du/ac overall

Notes:

- A variety of densities will occur in each Neighborhood; overall density will be lower in areas where existing settlement patterns preclude achieving this density.
- Overall density includes housing built in the Neighborhood Center.

Neighborhood Centers

Size: About 1-5 acres

Area Served: Neighborhood (about 200 acres)

Population Range Served: About 4,000 people

Typical Range of Building Height: 1-2 stories

Villages

A Village is collection of three to four Neighborhoods. Villages should feature a mix of residential dwelling types, including the single-family areas found in the

Neighborhoods and multifamily development near the center and strategically dispersed in single-family areas.

At the center of each Village is the Village Center. Village Centers serve the daily needs of their service areas and are spaced 1 ½ to 2 miles apart for adequate distribution around the City. They are primarily commercial places, featuring stores, offices, restaurants, and services. Multiple tenants in a pedestrian-friendly commercial development make up the character of the Center, featuring small to medium size grocery stores, drug stores, and restaurants. Single tenant retail size is developed at a maximum of approximately 50,000 square feet so that retail concentrates its services on its own Village and is not aimed at a regional market.

Residential uses may be developed in conjunction with the retail and/or office tenants/spaces, typically at a density of 6 to 12 du/ac. Village Centers are often developed with higher density residential sites immediately adjacent.

The following criteria apply to Villages and Village Centers. As noted above, these are intended to be used as guidelines, not as specific requirements or targets.

Village:

Size: About 800 – 1,200 acres

Population: About 15,000 persons

Residential Density: 6-8 du/ac overall

Village Center:

Size: About 5 to 10 acres

Area Served: About 800 acres

Population Range Served: About 15,000 people

Typical Range of Building Height, on-site: 1-3 stories

Residential Density in or near the Village Center: 8-18 du/ac

LU-34 All planning for areas designated on the Land Use Map as “Village Reserve” shall implement the 3-step planning process described below:

Step 1: Comprehensive Land Use and Implementation Planning

Step 2: Detailed Neighborhood Plans

Step 3: Development Proposals

This planning process is intended to provide progressively more detailed plans for Village Reserve areas, Neighborhoods, and individual development projects.

The following general rules apply to this planning process:

- Each step in the planning process may be initiated by the City of Madera or by another private or public sector applicant(s).
- Each step in the planning process must be completed as a prerequisite for the next step. However, multiple steps (1+2 or 1+2+3 or 2+3) may be undertaken simultaneously. As a general rule, the City would expect that a private applicant would submit a Comprehensive Land Use and Implementation Plan and its components (Step 1), together with a Neighborhood Plan (Step 2) for at least one neighborhood, as the initial submittal.
- At the Comprehensive Land Use and Implementation Plan and Neighborhood Plan level, the participation of all affected property owners is encouraged, but not required. A private sector applicant submitting either type of plan must include a list of all affected owners and their property(ies) and must show how their participation was sought.
- In some Village areas (as mapped and defined in this Land Use Element), the Village Reserve designation applies only to a portion of the Village. In this case, the process outlined below is required only for the Village Reserve areas, not to the entire Village. However, submitting plans that cover the entire Village is permitted.

In some Village Reserve areas, a Village Center is not required. See the detailed policies for the affected Village area (later in this Land Use Element) for further information.

In addition to the required plans, maps, reports, etc., the City may at its discretion require other items as needed to address issues in any particular Village. These may include additional environmental analysis, traffic studies, biological studies, noise studies, etc.

Action Item LU-34.1: Establish and make available procedural guidelines detailing the three-step village reserve planning process.

- LU-35** Figure LU-3 depicts the Village and District areas as defined by the City of Madera. This map shall be used to implement other policies in this General Plan which refer to villages and village centers. Although shown as defined lines, the exact boundaries of a village may be adjusted at the City's discretion to reflect conditions on the ground, ownership boundaries, or other conditions. Such a change shall not be considered an amendment to this General Plan.

Village E: West Madera

General Description: This Village is located in the west-central portion of the Planning Area, and contains many of the city's newer residential neighborhoods and retail districts (including Howard Road). Almost all of the land in this Village which is in the current (2008) city limits has been developed; the portion which is outside the city limits is less developed and retains some agricultural uses and conservation easements.

Area of this Village in the City Limits: 1,839 Acres

Area of this Village in the Sphere of Influence: 1,105 Acres

Area of this Village in the Planning Area only: 97 Acres

Total Area: 3,041 Acres

The Fresno River runs along the northern boundary of this Village and should continue to be viewed as an amenity in conjunction with the development and redevelopment of property along its frontage.

Lions Town and Country Park constitutes a significant public amenity within Village E, located at the intersection of Howard Road and Granada Drive. This park facility functions as a gathering place for surrounding neighborhoods; an undeveloped commercially designated parcel at the same intersection creates the opportunity to add a commercial venue at this central location. Aside from these features, there are few opportunities to establish new neighborhood centers due to the relatively built-up condition of the residential areas within the Village. Existing retail development along Howard Road functions as the commercial core for this Village and presents shopping opportunities within walking and biking

distance to a large area, although it may not conform to the typical characteristics of a Village Center.

The railroad spur line that serves Madera's southeastern industrial area passes through this Village. Although not as busy as the main line parallel to Hwy 99, this rail line creates some potential noise and safety impacts.

Village E: Specific Policies

The following policies are intended to identify some of the unique issues for this area which will need to be addressed, and to guide development, as the area transitions to urban use.

- Future development along the Fresno River should be designed to take advantage of the river frontage, including orienting development to front the river where not otherwise prohibited by site conditions.
- A permanent agricultural buffer averaging at least 400' in depth, with a minimum depth of 250; shall run continuously along the westerly edge of the Village, outside the Growth Boundary and consistent with Policy's LU-10 and LU-11. No habitable structures are to be located within this buffer, although passive recreational opportunities (such as trails), and community gardens may be allowed.
- The westerly neighborhood of Village E generally lies west of existing conservation easements which are intended to represent the westerly limit of urban growth in this area. The City does not intend to intensify the existing pattern of rural residential lots in this area, and the extension of infrastructure to serve new development in this area is not permitted. While larger "farmable" parcel sizes outside the urban area are preferable, the existing land use pattern significantly limits commercial farming opportunities. Due to the unique conditions in this neighborhood, the City will encourage the County to limit parcel sizes to five acres or larger. In the event this area is annexed into the City, the minimum parcel size permitted by the City in this neighborhood will be five acres.
- Individual uses proposed in proximity of the rail spur which passes through Village E shall take into consideration the circulation and noise impacts created by the rail line. The policies of the noise ordinance addressing

transportation-related noise and mitigation preferences will be applied to projects in the vicinity of the spur.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Guidelines Appendix G Checklist. Would the project:

- Convert Prime Farmland, Unique Farmland, or Farmland of statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- 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))?
- Result in the loss of forest land or conversion of forest land to non-forest use?
- 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?

Impacts and Mitigation Measures

Impact 3.2-1: *Convert Prime Farmland, Unique Farmland, or Farmland of statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

Less Than Significant Impact. Entitlements requested by the applicant include Annexation, General Plan Amendment, Pre-Zone, Tentative Parcel Map, and Tentative Subdivision Map to develop the Granite Creek Precise Plan (Project, or Plan Area). The Project site is currently zoned by Madera County as Agricultural, Rural, Exclusive-40 (ARE-40) and designated by the City of Madera General Plan as Village Reserve (VR). The Project site lies within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) just west of the current city limit boundary. The Project site has historically been used for agricultural purposes and currently contains grape vineyards and almond

orchards. The Project site is designated as Prime Farmland and Farmland of Statewide Importance by the FMMP.³ Full buildout of the entire Granite Creek Plan Area is limited to a maximum of 1,542 dwelling units and approximately 612,235 square feet over approximately 204 acres.

In 2009, the City of Madera adopted its current General Plan which designates the 204-acres of the Granite Creek Plan Area (Plan Area) as Village Reserve (VR). In the General Plan EIR, impacts resulting from converting agricultural land to VR were analyzed and determined to be significant and unavoidable.⁴

The proposed General Plan Amendment (GPA) includes changing the existing VR land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses. The GPA will also modify the Village E Specific Policy that requires a permanent agricultural buffer where the westerly edge of the Village abuts the Growth Boundary. A majority of the properties surrounding the Project area to the south and west are planned and zoned for agricultural uses. Properties to the north and east are planned and zoned for multiple uses including residential, commercial, industrial, office, public institutional, and open spaces.

As discussed above, the Project is on land designated Village Reserve and the 2009 General Plan EIR analyzed agricultural conversion at that time. Project implementation will not create any new impacts. Impacts as a result of farmland conversion are considered *Less Than Significant*.

Mitigation Measures

None are required.

Impact 3.2-2: *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

Less Than Significant Impact.

Williamson Act Contract

As previously noted, the Project site is not subject to a Williamson Act contract, pursuant to Government Code Section 51200 et seq. Therefore, there would be no conflict with a Williamson Act Contract and as such, *no impacts* to this subject area.

³ Ibid.

⁴ City of Madera, General Plan Update Draft EIR. April 29, 2009. Figure 4.2-2, Agricultural Conversion. <https://www.madera.gov/wp-content/uploads/2018/01/Draft-EIR.pdf>. Accessed February 2026.

Agricultural Zoning

The Project site is currently zoned by Madera County as Agricultural, Rural, Exclusive-40 (ARE-40) and designated by the City of Madera General Plan as Village Reserve. The Project site lies within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) just west of the current city limit boundary.

As previously mentioned in Impact 3.2-1, entitlements requested by the applicant include Annexation, General Plan Amendment, Pre-Zone, Tentative Parcel Map, and Tentative Subdivision Map to develop the Granite Creek Precise Plan (Project, or Plan Area). The new zoning would apply to the approximately 313-acres of property consistent with existing City of Madera zone districts. Once annexed, the proposed zoning would include approximately: 5.48 acres of P-D (1500), 35.35 acres of P-D (3000), 105.44 acres of P-D (4500), 18.27 acres of P-D (6000), 10.06 acres of C-1 (Light Commercial), 15.19 acres of C-N (Neighborhood Commercial), 22.34 acres of PF (Public Facilities), 18.73 acres of RCO (Resource Conservation and Open Space), and 85.59 acres of Unclassified zoning (Fresno River). Upon approval, the new zoning would accommodate the Project and as such, there would be no impact resulting from a zoning conflict. The impact is determined to be *less than significant*.

Mitigation Measures:

None are required.

Impact 3.2-3: *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)), or result in the loss of forest land or convert forest land to non-forest use?*

No Impact. The Project site lies in the central portion of the Central Valley floor, where there is no forest land. The Project is not zoned for forestland, timberland, or timberland zoned Timberland Production and does not propose any zone changes related to forest or timberland. As such, there are *no potential impacts* resulting from forest or timber land conflicts or conversion of forest land to non-forest use.

Mitigation Measures

None are required.

Impact 3.2-4: *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 area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. The south side of the Project area includes a combination of residential uses and agricultural uses. Total Project acreage is approximately 204 acres, and is currently zoned by Madera County as Agricultural, Rural, Exclusive-40 (ARE-40) and designated by the City of Madera General Plan as Village Reserve. The Project site lies within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) just west of the current city limit boundary.

The Fresno River and a Madera Irrigation District canal bounds the Project site to the north and represents the limits of available development for the City of Madera in that direction. Due to riverine habitat protections, development to the north is unlikely. Single-family residential uses lie to the east, thus there is no possibility to induce further conversion of agricultural lands in this area. The south side of the Project area includes a combination of rural residential uses and agricultural uses, and extensive agricultural uses also lie to the west. However, the requested General Plan Amendment, annexation and other entitlements are site specific and will not apply to any properties other than the Project site. Therefore, it is unlikely that the Project would result in the conversion of other farmland or forest land. Therefore, the impact is considered *less than significant*.

Mitigation Measures

None are required.

Cumulative Impacts

Less Than Significant Impact. The geographic area of this cumulative analysis is the entire State of California. This cumulative analysis is based on the Statewide FMMP map. As discussed above, the conversion of protected farmland to urban uses is considered less than significant, since the site has been and continues to be designated for urban development. The entitlements supporting the Project are site specific and there is no forest land in the Project vicinity. Additionally, no land within the Project site is under a Williamson Act Contract. The Project would have *less than significant cumulative impacts* on agricultural resources.

3.3 Air Quality

This section of the DEIR evaluates the potential air quality impacts associated with the implementation of the Project. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for quantification of emissions and evaluation of potential impacts to air resources. The information and analysis presented in this Section are based on the Air Quality, Energy and Greenhouse Gas Impact Analysis (AQHRAGGE) prepared for this Project by LSA Consulting, report date January 2026. The full AQHRAGGE can be reviewed in Appendix B. No Air Quality related letters were received during the NOP comment period.

Environmental Setting

San Joaquin Valley Air Basin

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transport pollutants to downwind areas. The San Joaquin Valley Air Basin (Air Basin) is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The climate is important for air quality because of differences in the atmosphere's ability to trap pollutants close to the ground, which creates adverse air quality; inversely, the atmosphere's ability to rapidly disperse pollutants over a wide area prevents high concentrations from accumulating under different climatic conditions. The Air Basin has an "inland Mediterranean" climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be

a catalyst in the formation of some air pollutants (such as ozone); the Air Basin averages over 260 sunny days per year.¹

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually encountered 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the Air Basin form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the valley, through the Tehachapi Pass and into the Mojave Desert Air Basin portion of Kern County. As the wind moves through the Air Basin, it mixes with the air pollution generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the San Joaquin Valley floor. This creates strong, low-level temperature inversions and very stable air conditions, which can lead to Tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of PM_{2.5} and PM₁₀.

Attainment Status

The US Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour carbon monoxide (CO) standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In

¹ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Revised March 19, 2015. <https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf>. Accessed February 2026.

contrast, the federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard.

The current attainment designations for the Air Basin are shown in Table 3.3-1. The Air Basin is designated as nonattainment for ozone, Particulate Matter with a diameter of 10 microns or less (PM₁₀), and Particulate Matter with a diameter of 2.5 microns or less (PM_{2.5}).

**Table 3.3-1
San Joaquin Valley Air Basin Attainment Status**

Pollutant	State Status	National Status
Ozone—One Hour	Nonattainment/Severe	No Standard
Ozone—Eight Hour	Nonattainment	Nonattainment/Extreme
Carbon monoxide (CO)	Attainment/Unclassified	Merced, Madera, and Kings Counties are unclassified; others are in Attainment
Nitrogen dioxide (Nox)	Attainment	Attainment/Unclassified
Sulfur dioxide (SO ₂)	Attainment	Attainment/Unclassified
Particulate Matter with a diameter of 10 microns or smaller (PM ₁₀)	Nonattainment	Attainment
Particulate Matter with a diameter of 2.5 microns or smaller (PM _{2.5})	Nonattainment	Nonattainment
Lead (Pb)	Attainment	No Designation/Classification
Source of State status: California Air Resources Board (ARB). 2013c. Area Designation Maps/State and National. 2012 State Area Designations. Page last reviewed October 18, 2017. Website: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed September 2025. Source of National status: U.S. Environmental Protection Agency (EPA). 2021a. Green Book Nonattainment Areas for Criteria Pollutants as of September 30, 2021. Website: https://www.epa.gov/green-book. Accessed September 2025. Source of additional status information: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2017a. Ambient Air Quality Standards & Valley Attainment Status. Website: https://www.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainment-status/. Accessed September 2025.		

Regulatory Setting

Federal Regulations

Federal Clean Air Act

The 1970 federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the Clean Air Act, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

State of California Regulations

California Clean Air Act

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain CAAQS for CO, O₃, SO₂, and NO₂ by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

California Air Resources Board (CARB)

The CARB is the State's "clean air agency." The CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

Assembly Bill 2588 Air Toxics "Hot Spots" Information and Assessment Act. Under Assembly Bill (AB) 2588, stationary sources of air pollutants are required to report the types and quantities of certain substances their facilities routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, determine health risks, and notify nearby residents of significant risks.

The California Air Resources Board Handbook. The CARB has developed an Air Quality and Land Use Handbook² which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for “sensitive” land uses such as homes, medical facilities, daycare centers, schools, and playgrounds.

Land uses that can produce air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet); and
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this guidance is to help land use agencies determine when to further examine project sites for actual health risk associated with the location of new sensitive land uses.

² California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. <https://files.ceqanet.lci.ca.gov/221458-6/attachment/UNr-g159CW-r0G4DR8q6daNdAKT3RITd8gQOCfz4wqFfl-eNdZNQEqj8tfls1x6Gsae7YqpXwtFIZBd0>. Accessed February 2026.

Regional Regulations

San Joaquin Valley Air Pollution Control District

The SJVAPCD is responsible for controlling emissions primarily from stationary sources. The SJVAPCD maintains air quality monitoring stations throughout the basin. The SJVAPCD, in coordination with the eight county transportation agencies, is also responsible for developing, updating, and implementing air quality attainment plans for the San Joaquin Valley Air Basin (SJVAB).

Guidance for Assessing and Mitigating Air Quality Impacts. The SJVAPCD prepared the GAMAQI to assist lead agencies and project applicants in evaluating the potential air quality impacts of projects in the SJVAB. The GAMAQI provides SJVAPCD-recommended procedures for evaluating potential air quality impacts during the CEQA environmental review process. The GAMAQI provides guidance on evaluating short-term (construction) and long-term (operational) air emissions. The most recent version of the GAMAQI, adopted on March 19, 2015, was used in this evaluation. It contains guidance on the following:

- Criteria and thresholds for determining whether a project may have a significant adverse air quality impact.
- Specific procedures and modeling protocols for quantifying and analyzing air quality impacts.
- Methods to mitigate air quality impacts.
- Information for use in air quality assessments and environmental documents, including air quality, regulatory setting, climate, and topography data.

Current Air Quality Plans. The SJVAPCD is responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SJVAB. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. The SJVAPCD does not have one single AQMP for criteria pollutants, rather the SJVAPCD address each criteria pollutant with its own Plan. The SJVAPCD has the following AQMPs:

- 2022 Plan for the 2015 8-Hour Ozone Standard.
- 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards.
- 2016 Moderate Area Plan for the 2012 PM_{2.5} Standard.
- 2016 Plan for the 2008 8-Hour Ozone Standard.
- 2013 Plan for the Revoked 1-Hour Ozone Standard.
- 2007 PM₁₀ Maintenance Plan.
- 2004 Revision to the California State Implementation Plan for Carbon Monoxide.

The SJVAPCD's AQMPs incorporate the latest scientific and technological information and planning assumptions, including updated emission inventory methodologies for various source categories. The

SJVAPCD's AQMPs included the integrated strategies and measures needed to meet the national ambient air quality standards (NAAQS), implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour ozone NAAQS as well as the latest 24-hour and annual PM_{2.5} standards.

The SJVAPCD's current air quality plans are discussed below.

Ozone Plans. The SJVAPCD's Governing Board approved the 2022 Plan for the 2015 8-hour ozone standard on December 15, 2022. The comprehensive strategy in this plan will reduce NO_x emissions by 72 percent by 2037 and will bring the San Joaquin Valley into attainment of USEPA's 2015 8-hour ozone standard as expeditiously as practicable by the 2037 attainment deadline.

Particulate Matter Plans. The SJVAPCD adopted the 2007 PM₁₀ Maintenance Plan in September 2007 to assure the SJVAB's continued attainment of the USEPA's PM₁₀ standard. The USEPA designated the valley as an attainment/maintenance area for PM₁₀.

The 2008 PM_{2.5} Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the SJVAB into attainment of the 1997 national standards for PM_{2.5}. The USEPA has identified NO_x and SO₂ as precursors that must be addressed in air quality plans for the 1997 PM_{2.5} standards. The 2008 PM_{2.5} Plan is a continuation of the SJVAPCD's strategy to improve the air quality in the SJVAB.

The SJVAPCD prepared the 2012 PM_{2.5} Plan to bring the San Joaquin Valley into attainment of the USEPA's most recent 24-hour PM_{2.5} standard of 35 µg/m³. The CARB approved the SJVAPCD's 2012 PM_{2.5} Plan at a public hearing on January 24, 2013. The plan, approved by the SJVAPCD Governing Board on December 20, 2012, will bring the San Joaquin Valley into attainment of USEPA's 1997 PM_{2.5} standard as expeditiously as practicable, but no later than, December 31, 2020.

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} federal standards on November 15, 2018. This plan addresses the USEPA federal 1997 annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³, the 2006 24-hour PM_{2.5} standard of 35 µg/m³, and the 2012 annual PM_{2.5} standard of 12 µg/m³. This plan demonstrates attainment of the federal PM_{2.5} standards as expeditiously as practicable.

Rules and Regulations. The SJVAPCD rules and regulations that may apply to the Project include, but are not limited to, the following:

- **Rule 8011 – General Requirements: Fugitive Dust Emission sources.** Fugitive dust regulations are applicable to outdoor fugitive dust sources. Operations, including construction operations, must control fugitive dust emissions in accordance with

SJVAPCD Regulation VIII. According to Rule 8011, the SJVAPCD requires the implementation of control measures for fugitive dust emission sources.

- **Regulation VIII – Fugitive PM₁₀ Prohibitions.** Rules 8011–8081 are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, and carryout and track out. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.
- **Rule 2201 – New and Modified Stationary Source Review Rule.** This rule provides the review of new and modified stationary sources of air pollution to operate without interfering with the attainment or maintenance of ambient air quality standards and results in no net increase in emissions above specified thresholds.
- **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. This rule is enforced on a complaint basis.
- **Rule 4601—Architectural Coatings.** The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling. Only compliant components are available for purchase in the San Joaquin Valley.
- **Rule 4901—Wood-Burning Fireplaces and Wood-Burning Heaters.** The purposes of this rule are to limit emissions of carbon monoxide and particulate matter from wood-burning fireplaces, wood-burning heaters, and outdoor wood-burning devices, and to establish a public education program to reduce wood-burning emissions. All developments that include wood-burning devices are subject to this rule.
- **Rule 9510—Indirect Source Review.** This rule reduces the impact of NO_x and PM₁₀ emissions from growth within the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through on-site mitigation, off-site SJVAPCD-administered projects, or a combination of the two. The Project is subject to Rule 9510.

Local Regulations

City of Madera General Plan

As noted previously, the project site will be annexed into the City of Madera prior to development. As a result, the Madera General Plan is the applicable general plan.

The City addresses air quality in the Conservation Element of its General Plan.³ The Conservation Element includes goals and policies that work to improve air quality by meeting or exceeding all State and federal standards. The following policies from the Conservation Element are applicable to the Project:

Policy CON-28: Residential development projects and projects categorized as sensitive receptors shall be located an adequate distance from existing and potential sources of toxic emissions such as freeways, major arterials, industrial sites, and hazardous material locations. “Adequate distance” will be based on site-specific conditions, on the types and amounts of potential toxic emissions, and other factors.

Policy CON-30: The creation of dust during construction/demolition activities should be reduced to the extent feasible.

Action Item CON-30.1: Work with the San Joaquin Valley Air Pollution Control District to reduce particulate emissions from construction, grading, excavation, and demolition through standard and/or special conditions on these activities.

Policy CON-31: The City seeks to reduce the urban heat island effect in the City, which causes increased temperatures and increases in ground level ozone formation through methods such as:

- Increasing the amount of tree coverage in the city.
- Green roofs and rooftop gardens.

³ City of Madera General Plan, Conservation Element, October 2009. <https://www.madera.gov/media/5iifxhqp/city-of-madera-gp-12-04-20.pdf>. Accessed February 2026.

- The use of reflective treatments on roofs (such as those which qualify for the EPA/DOE's Energy Star rating). A "green roof" uses plant cover to provide insulation and reduce the heat generated by a standard roof.
- The use of cool pavements such as permeable and light colored and reflective pavements.

Action Item CON-31.1: Develop and adopt a tree ordinance that protects existing trees in the public right of way and promotes the establishment of new tree resources in public areas, including the placement of trees in parkway strips to allow shading of streets. The tree ordinance could establish a City-approved tree-planting list and provide for the creation of a Master Tree Plan that would include an inventory of trees in public areas, including tree type, condition and size.

Action Item CON-31.2: Update or amend the City's zoning and building codes, and provide training to the City's Community Development Department staff, to incorporate features which will have the effect of reducing exterior heat gain, such as:

- Allowances for the construction of green roofs;
- Standards for surface shading of paved areas;
- Standards for the use of paving materials with an enhanced solar reflective index (SRI);
- Standards that provide for pervious pavement options.

Policy CON-34: The City shall consider air quality when making changes to planned land uses and transportation systems.

Thresholds of Significance

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

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

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the lead agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable SJVAPCD thresholds and methodologies are contained under each impact statement below.

Impacts and Mitigation Measures

Impact 3.3-1: *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Significant and Unavoidable with Mitigation Incorporation. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a nonattainment area. As discussed above, the SJVAB is designated as nonattainment for O₃ and PM_{2.5} for federal standards and non-attainment for O₃, PM₁₀, and PM_{2.5} for State standards. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the San Joaquin Valley into attainment, the SJVAPCD adopted the 2022 Plan for the 2015 8-Hour Ozone Standard in December 2022 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.

To ensure the SJVAB's continued attainment of the USEPA PM₁₀ standard, the SJVAPCD adopted the 2007 PM₁₀ Maintenance Plan in September 2007. The SJVAPCD adopted the 2018 Plan for the

1997, 2006, and 2012 PM_{2.5} Standards in November 2018, to address the USEPA 1997 annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³, the 2006 24-hour PM_{2.5} standard of 35 µg/m³, and the 2012 annual PM_{2.5} standard of 12 µg/m³.

For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality (thresholds are presented in Tables 3.3-2 and 3.3-3). In addition, emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD air quality plans. In addition to the construction-period thresholds of significance, the SJVAPCD has implemented Regulation VIII measures for dust control during construction. These control measures are intended to reduce the amount of PM₁₀ emissions during the construction period. Implementation of the fugitive dust control measures outlined in AIR-1, would ensure that the Project complies with Regulation VIII, further reduces the short-term construction period air quality impacts, and ensures compliance with air quality plans. In addition, as discussed below and shown later in Table 3.3-3 and Table 3.3-4, long-term operational emissions associated with the Project, including area, energy, and mobile source emissions, would not exceed the significance criteria for annual CO, SO_x, or PM_{2.5} emissions. However, long-term operational emissions associated with mobile and area sources would result in annual emissions of ROG, NO_x, and PM₁₀ that exceed the SJVAPCD significance thresholds (see Tables 3.3-3 and 3.3-4). Even with implementation of mitigation measures, the estimated ROG, NO_x, and PM₁₀ emissions generated under the Project would still exceed the SJVAPCD's significance thresholds and would cumulatively contribute to the nonattainment designations in the air basin for O₃. Therefore, the Project would conflict with or obstruct the implementation of SJVAPCD air quality plans. This impact is considered *significant and unavoidable*.

Mitigation Measures:

AIR – 1 Consistent with San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VIII (Fugitive PM₁₀ Prohibitions), the following controls shall be required for all future construction projects within the Project area and implemented at the construction site during construction:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant or covered with a tarp or other suitable cover or vegetative ground cover.

- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

Impact 3.3-2: *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Significant and Unavoidable with Mitigation Incorporation. The SJVAB is currently designated as nonattainment for the federal and State standards for O₃ and PM_{2.5}. In addition, the SJVAB is in nonattainment for the PM₁₀ standard. The SJVAB's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of an ambient air quality standard. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SJVAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project

exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in adverse air quality impacts to the region's existing air quality conditions. The following analysis assesses the potential construction- and operation-related air quality impacts.

Criteria Pollutant Emission Estimates

Construction Emissions (Regional)

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by demolition, grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly emitted particulate matter (PM_{2.5} and PM₁₀), and Toxic Air Contaminants (TACs) such as diesel exhaust particulate matter.

Construction activities associated with the Project would include site preparation, grading, paving, and building activities. Construction-related effects on air quality from the Project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. In general, larger dust particles settle closer to the source, while fine particles disperse over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SJVAPCD has implemented Regulation VIII measures for reducing fugitive dust emissions (PM₁₀). SJVAPCD Rule 8011, General Requirements, and Rule 8021, Construction, Demolition Excavation, Extraction, and Other Earthmoving Activities, would also be applicable.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, ROG, and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the Project using CalEEMod and are summarized in Table 3.3-2. Appendix B provides CalEEMod output sheets.

Table 3.3-2
Short-Term Regional Construction Emissions⁴

Construction Year	Pollutant Emissions (Tons/Year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2026	0.1	5.1	3.7	<0.1	1.1	0.6
2027	0.2	6.1	4.4	<0.1	0.8	0.4
2028	0.4	4.9	5.1	<0.1	0.9	0.3
2029	0.5	4.0	5.2	<0.1	1.1	0.3
2030	0.5	3.9	5.0	<0.1	1.1	0.3
2031	0.5	3.8	4.8	<0.1	1.1	0.3
2032	0.5	3.8	4.6	<0.1	1.1	0.3
2033	0.3	2.6	2.7	<0.1	0.5	0.2
2034	8.3	0.5	0.7	<0.1	0.1	<0.1
2035	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Emissions	8.3	6.1	5.2	<0.1	1.1	0.6
SJVAPCD Threshold	10	10	100	27	15	15
Significant?	No	No	No	No	No	No
Notes: Source: Compiled by LSA (September 2025). CO = carbon monoxide NO _x = nitrogen oxides PM _{2.5} = particulate matter less than 2.5 microns in size PM ₁₀ = particulate matter less than 10 microns in size ROG = reactive organic gas SJVAPCD = San Joaquin Valley Air Pollution Control District SO _x = sulfur oxides						

As shown in Table 3.3-2 above, construction emissions associated with the Project would not exceed the SJVAPCD's thresholds for ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions. In addition to the construction period thresholds of significance, the SJVAPCD has implemented Regulation

⁴ Air Quality, Energy and Greenhouse Gas Impact Analysis for Granite Creek Plan Project, Madera County, California. LSA Consulting, September 2025. Page 46. Appendix B.

VIII measures for dust control during construction. Implementation of Mitigation Measure AIR-1 would ensure that the Project complies with Regulation VIII.

Construction emissions associated with the Project would be less than significant with implementation of AIR-1. Therefore, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or State ambient air quality standard.

Operational Emissions (Regional)

Long-term air pollutant emission impacts associated with the Project are those related to mobile sources (e.g., vehicle trips), energy sources (e.g., natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment).

Mobile source emissions include ROG and NO_x emissions that contribute to the formation of ozone. Additionally, PM₁₀ emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways.

Energy source emissions result from activities in buildings for which natural gas is used. The quantity of emissions is the product of usage intensity (i.e., the amount of natural gas) and the emission factor of the fuel source. It should be noted that the Project will not use natural gas; however, natural gas usage is automatically estimated in energy emissions within the CalEEMod program.

Typically, area source emissions consist of direct sources of air emissions located at the Project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the Project would include emissions from the use of landscaping equipment and the use of consumer products.

Long-term operational emissions associated with the Project were calculated using CalEEMod. Table 3.3-3 provides the Project's estimated operational emissions without implementation of mitigation. Appendix B provides CalEEMod output sheets.

Table 3.3-3
Unmitigated Project Operational Emissions⁵

Source	Emissions (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile Sources	11.5	10.9	69.6	0.2	20.8	5.4
Area Sources	12.7	0.6	10.1	<0.1	<0.1	<0.1
Energy Sources	0.2	2.7	1.3	<0.1	0.2	0.2
Total Project Emissions	24.4	14.2	80.9	0.2	21.0	5.6
SJVAPCD Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	Yes	Yes	No	No	Yes	No
Source: Compiled by LSA (August 2025). Note: Some values may not appear to add correctly due to rounding. CO = carbon monoxide NO _x = nitrogen oxides PM _{2.5} = particulate matter less than 2.5 microns in size PM ₁₀ = particulate matter less than 10 microns in size ROG = reactive organic gas SJVAPCD = San Joaquin Valley Air Pollution Control District SO _x = sulfur oxides						

The results shown in Table 3.3-3 indicate that the Project would not exceed the significance criteria for daily CO, SO_x, or PM_{2.5} emissions. However, the Project would result in long-term operations that exceed the SJVAPCD regional thresholds for ROG, NO_x, and PM₁₀ emissions. The Project would be required to comply with SJVAPCD Rule 4601: Architectural Coatings, which requires that ROG emissions be reduced during painting by placing limits on the ROG content in various coating categories. Compliance with Rule 4601 architectural coatings would minimize ROG emissions. NO_x and PM₁₀ emissions are primarily associated with mobile sources. Thus, Mitigation Measure AIR-2 would be required to further reduce ROG, NO_x, and PM₁₀ emissions.

⁵ Air Quality, Energy and Greenhouse Gas Impact Analysis for Granite Creek Plan Project, Madera County, California. LSA Consulting, September 2025. Page 48. Appendix B.

**Table 3.3-4
Mitigated Project Operational Emissions⁶**

Source	Emissions (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile Sources	11.5	10.9	69.6	0.2	20.8	5.4
Area Sources	11.1	0.5	0.2	<0.1	<0.1	<0.1
Energy Sources	<0.1	0.3	0.2	<0.1	<0.1	<0.1
Total Project Emissions	22.6	11.7	70.0	0.2	20.8	5.4
SJVAPCD Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	Yes	Yes	No	No	Yes	No
Source: Compiled by LSA (August 2025). Note: Some values may not appear to add correctly due to rounding. CO = carbon monoxide NO _x = nitrogen oxides PM _{2.5} = particulate matter less than 2.5 microns in size PM ₁₀ = particulate matter less than 10 microns in size ROG = reactive organic gas SJVAPCD = San Joaquin Valley Air Pollution Control District SO _x = sulfur oxides						

As shown in Table 3.3-4, even with implementation of AIR-2 and with compliance with the anticipated regulations, the estimated long-term emissions generated under the Project would still exceed the SJVAPCD's regional operational significance thresholds.

Although implementation of AIR-2 would incorporate design features that would contribute to reducing criteria air pollutant emissions generated during operational activities associated with the Project, some measures would provide emissions reductions that are not quantifiable, such as incentives for carpool/vanpools. Further, the majority of the Project's operational-source emissions are generated by mobile sources/passenger cars accessing the Project. Neither the Project Applicant nor the City have regulatory authority to control tailpipe emissions, and there are no additional feasible measures that would reduce Project operational source emissions to a

⁶ Air Quality, Energy and Greenhouse Gas Impact Analysis for Granite Creek Plan Project, Madera County, California. LSA Consulting, September 2025. Page 50. Appendix B.

less than significant level. Without quantification to guarantee a less than significant finding, the Project may still exceed the SJVAPCD regional significance thresholds and would cumulatively contribute to the nonattainment designations in the air basin for O₃ and PM.

Regarding ROG, it is important to note that approximately 52 percent of the total operational ROG area emissions are derived from consumer products. As such, the Project applicant cannot meaningfully control the use of consumer products by future building users via mitigation. Neither the Project applicant nor the City have regulatory authority to control consumer product emissions, and no feasible mitigation measures beyond the measures identified herein exist that would reduce project operation-source of ROG emissions to levels that are less than significant. Therefore, the Project's operational emissions of ROG would represent a significant and unavoidable impact for which additional mitigation is not available.

Due to the level of the Project's regional emissions that would exceed the SJVAPCD regional thresholds, and as discussed in the preceding section, the Project also would result in significant and unavoidable impacts due to a conflict with or obstruction of the applicable air quality plans. As such, operation of the Project would result in a cumulatively considerable net increase of criteria pollutants for which the Project region is in nonattainment under an applicable federal or State AAQS. This impact would be *significant and unavoidable*.

Mitigation Measures:

See AIR-2 Prior to issuance of building permits, the City of Madera shall review and approve project design details and specifications to demonstrate implementation of the following emission reduction measures. The applicant shall incorporate the measures, as applicable to the proposed land use(s) indicated in parentheses below, into final project design. These measures shall be made enforceable as conditions of approval and shall be verified by the City prior to issuance of certificates of occupancy. Implementation of the following measures, where applicable to the proposed land use(s) based on the parentheses below, are considered to be effective in reducing criteria pollutant emissions generated by the Project:

A. Transportation and Circulation Measures (All Land Uses)

- **Traffic Calming and Vehicle Speed Reduction.** Project roadway designs shall include at least two traffic-calming features per roadway segment, such as narrowed travel lanes (≤10 feet for local streets), speed tables or

platforms, curb bulb-outs, chicanes, or raised intersections, consistent with City engineering standards.

- **Pedestrian and Bicycle Connectivity.** The project shall provide continuous pedestrian sidewalks on both sides of all internal streets, separated from travel lanes by landscaping or on-street parking where feasible. Bicycle facilities shall be provided in accordance with City standards or the latest Caltrans Highway Design Manual, as applicable.
- **Safe and Direct Access.** Pedestrian and bicycle access routes from public rights-of-way, transit stops, and parking areas to building entrances shall be physically separated from vehicular travel lanes and shall not be obstructed by walls, berms, excessive slopes, or discontinuous pathways.
- **Parking Lot Pedestrian Circulation.** For land uses that include public parking lot(s), parking areas shall include clearly marked pedestrian pathways connecting parking stalls and transit facilities to building entrances. Pathways shall be a minimum of 6 feet wide, landscaped or shaded with trees or canopies providing at least 50 percent shade coverage within 15 years of project approval.
- **Carpool, Vanpool, and Rideshare Incentives.** For land uses that include public parking lot(s), a minimum of 5 percent of on-site parking spaces shall be designated as preferential parking for carpool, vanpool, or rideshare vehicles and shall be located within the closest parking row to primary building entrances and clearly signed.

B. Building Energy and Electrification Measures (Residential and Non-Residential)

- **All-Electric Development Requirement.** All new buildings shall be designed and constructed as all-electric, with no natural gas infrastructure (including piping, meters, or combustion appliances).

If the applicant demonstrates to the City's satisfaction that full electrification is infeasible, the project shall implement equivalent or greater criteria pollutant and greenhouse gas emission reductions through a combination of the following measures, subject to City approval:

- Install on-site solar photovoltaic systems sized to offset 100 percent of the projected annual electricity demand attributable to gas-powered end uses;
 - Install battery energy storage systems to support peak-load reduction; and/or
 - Incorporate other City-approved design features that achieve equivalent emission reductions, quantified using accepted modeling methods.
- **Energy Efficiency Standards.** All buildings shall exceed the Title 24 Building Energy Efficiency Standards by a minimum of 20 percent, as demonstrated through energy compliance documentation submitted with building permit applications.
 - **Efficient Appliances and Water Heating.** All appliances shall be ENERGY STAR–certified, where available, and all water heating systems shall consist of high-efficiency electric heat pump water heaters.

C. Renewable Energy and Site Design Measures (All Land Uses)

- **On-Site Solar Energy Generation.** The project shall maximize on-site solar energy generation by installing photovoltaic systems on rooftops and/or carport structures. Solar installations shall utilize all feasible roof area not constrained by shading, structural limitations, or code requirements.
- **Sustainable Site Design.** Buildings shall incorporate energy-efficient design features, including optimal site orientation, light-colored roofing and paving materials with a minimum solar reflectance index (SRI) of 75 for roofs and 50 for pavements, and the strategic placement of deciduous shade trees and windbreak trees to reduce heating and cooling demands.

D. Materials, Coatings, and Construction-Related Measures (All Land Uses)

- **Low-VOC Coatings.** All interior and exterior paints, coatings, and finishes shall contain no more than 10 grams per liter of VOCs, excluding water and exempt compounds.

E. Landscaping and Water Efficiency Measures (All Land Uses)

- **Water-Efficient Landscaping.** Landscaping shall comply with the Model Water Efficient Landscape Ordinance (MWELO) and shall utilize drought-tolerant plant species, high-efficiency irrigation systems, and soil moisture sensors to minimize water use and associated energy demand.

Impact 3.3-3: *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Significant and Unavoidable Impacts with Mitigation Incorporation.

Long-Term Microscale (CO Hot Spot) Analysis

Vehicular trips associated with the Project would contribute to congestion at intersections and along roadway segments in the vicinity of the Project site. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the Project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients).

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine the Project's effect on local CO levels.

An assessment of Project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Ambient CO levels monitored at the Clovis air quality monitoring stations, the closest stations to the Project site monitoring CO, showed the highest recorded 1-hour concentration of 1.5 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.3 ppm (the State standard is 9 ppm) during the past 3 years. The highest CO

concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

Based on the Project's Trip Generation, the Project would result in 808 a.m. and 1,029 p.m. peak-hour trips. Therefore, given the extremely low level of CO concentrations in the Project area and the lack of traffic impacts at any intersections, Project-related vehicles are not expected to result in CO concentrations exceeding the State or federal CO standards. No CO hot spots would occur, and the Project would not result in any project-related impacts on CO concentrations.

Health Risk on Nearby Sensitive Receptors

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to DPM are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. The Project site is surrounded primarily by agricultural uses with some residential and uses. The closest sensitive receptors to the Project site include single-family residences located across Avenue 14-1/2 at approximately 100 feet south as measured from the Project boundary to the building façade. Other nearby sensitive receptors include the single-family residences located east of the Project site at approximately 751 feet and the Lincoln Elementary School at approximately 1,470 feet of the Project site.

A construction health risk assessment (HRA), which evaluates construction-period health risk to off-site receptors, was performed for the Project. Table 3.3-5, below, identifies the results of the analysis assuming the use of Tier 2 construction equipment as a minimum requirement for the Project. Output files and model snapshots of the sources are shown in Appendix B.

Table 3.3-5
Health Risks from Project Construction to Off-Site Receptors⁷

Location	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index
Residential Receptor Risk	11.32	0.006	0.000
Worker Receptor Risk	0.46	0.006	0.000
School Receptor	1.05	<0.001	0.000
SJVAPCD Significance Thresholds	20.0 in one million	1.0	1.0
Significant?	No	No	No
Source: LSA (August 2025). SJVAPCD = San Joaquin Valley Air Pollution Control District			

As shown in Table 3.3-5, the maximum cancer risk for the residential maximally exposed individual (MEI) would be 11.32 in one million, which would not exceed the SJVAPCD cancer risk threshold of 20 in one million. The worker receptor risk would be lower at 0.46 in one million and the school receptor risk would be 1.05 in one million, which would also not exceed the SJVAPCD cancer risk thresholds. The total chronic hazard index would be 0.006 for both, the residential receptor MEI and worker receptor MEI, and less than 0.001 for the school receptor MEI, which are all below the threshold of 1.0. In addition, the total acute hazard index would be nominal (0.000), which would also not exceed the threshold of 1.0.

Additionally, and as described in the Regulatory Setting, development within the Project area would be subject to the SJVAPCD's Rule 9510. When development projects are subject to Rule 9510, the project applicant may commit to reducing construction emissions by using less polluting construction equipment, which can be achieved by utilizing add-on controls, cleaner fuels, or newer lower emitting equipment. The mechanism for satisfying such commitment is that the applicant is required to submit to the SJVAPCD a Construction Clean Fleet Data report, which includes records of each piece of equipment used during construction activities, equipment model year, horsepower, fuel type and hours of operation. Upon receipt, the SJVAPCD then

⁷ Air Quality, Energy and Greenhouse Gas Impact Analysis for Granite Creek Plan Project, Madera County, California. LSA Consulting, September 2025. Page 52. Appendix B.

conducts an analysis to determine if construction mitigation requirements under Rule 9510 have been achieved (i.e. 20% Nox, and 45% PM₁₀). Compliance with Rule 9510 would reduce the exposure of construction diesel truck emissions to nearby residents.

Therefore, construction of the Project would not exceed SJVAPCD thresholds and would not expose nearby sensitive receptors to substantial pollutant concentrations. No significant health risk would occur from Project construction emissions.

The Project would construct single-family and multi-family residential units, town centers, an elementary/middle school, commercial space for employment opportunities, and public facilities, all supported by an integrated open space and trails network. The Office of Environmental Health Hazard Assessment (OEHHA) Air Toxic Hot Spots Program Risk Assessment Guidelines has determined that long-term exposure to diesel exhaust particulates poses the highest cancer risk of any TAC it has evaluated. In addition, CARB has also identified DPM emitted by off-road and diesel-fueled engines as a TAC. As such, the TAC of concern would be DPM associated with the use of diesel engines during Project construction and operation. For risk assessment procedures, the OEHHA specifies that the surrogate for whole diesel exhaust is DPM. HRA analyses typically use PM₁₀ emissions to represent DPM emissions, consistent with OEHHA guidance.

Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms.

As determined in Table 3.3-5 above, although the emissions from operations resulting from implementation of the Project are expected to exceed the SJVAPCD's Project level thresholds (Table 3.3-4), the results of the Health Risk Analysis demonstrate that this does not in itself constitute a significant health impact.

The SJVAPCD's Project level thresholds are based in part on Section 180 (e) of the CAA. The Project level thresholds are intended to provide a means of consistency in significance determination within the environmental review process.

Notwithstanding, simply exceeding the SJVAPCD's project level criteria pollutant thresholds does not constitute a particular health risk impact to an individual nearby. The reason for this is that the project level criteria pollutant thresholds are in tons/year emitted into the air, whereas health effects are determined based on the concentration of a pollutant in the air at a particular location (e.g., ppm by volume of air or µg/m³ of air). CAAQS and NAAQS were developed to

protect the most susceptible population groups from adverse health effects and were established in terms of ppm or $\mu\text{g}/\text{m}^3$ for the applicable emissions.

As demonstrated in Table 3.3-5 above, the Project's long-term operational ROG, NO_x , and PM_{10} emissions would exceed the SJVAPCD's significance criteria. As described above, the majority of the Project's operational-source emissions are generated by passenger cars accessing the Project. Neither the Project Applicant nor the City have regulatory authority to control tailpipe emissions, and there are no additional feasible measures that would reduce Project operational-source emissions to a less than significant level. Furthermore, approximately half of ROG emissions are derived from the use of consumer products, and the Project applicable and City do not have regulatory authority to control the use of such products. Implementation of MM AIR-1 would reduce emissions to the maximum extent feasible, but the Project's operational emissions of ROG would represent a significant and unavoidable impact.

Furthermore, air quality trends for emissions of ROG, NO_x , ozone (which is a byproduct of ROG and NO_x), and PM emissions have been trending downward within the SJVAB even as development has increased over the last several years. Therefore, continued implementation of the Project is not expected to result in any SJVAB-wide increase in health effects.

As noted in the Brief of Amicus Curiae by the SJVAPCD (2015), the SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts. This document is incorporated herein by reference.

Additionally, the SJVAPCD acknowledges that health effects quantification from ozone, as an example, is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes. The SJVAPCD indicates that it would take a large amount of additional emissions to result in a modeled increase in ambient ozone levels over the entire region. As such, it is not currently possible to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with a regional scope) due to photochemistry and regional model limitations.

Further, in the 2015 Brief of Amicus Curiae, the SJVAPCD acknowledges that:

“...the Air District is simply not equipped to analyze and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area...even for projects with relatively high levels of emissions of criteria pollutant precursor emissions.”

Current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. However, without quantification to guarantee a less than significant finding, this impact is considered to be *significant and unavoidable*.

Valley Fever

The closest sensitive receptors to the Project site include single-family residences located across Avenue 14-1/2 at approximately 100 feet south as measured from the Project boundary to the building façade. Except under high wind conditions, this distance is sufficient that particulate matter would settle prior to reaching the nearest sensitive receptor. In addition, crosswinds influenced by the adjacent roadways would help dissipate any particulate matter associated with the construction phase of the Project. Therefore, any Valley fever spores suspended with the dust would not be anticipated to reach the sensitive receptors. However, during Project construction, it is possible that workers could be exposed to Valley fever through fugitive dust. Dust control measures, consistent with SJVAPCD Regulation VIII, would reduce the exposure to the workers and sensitive receptors. Therefore, dust from the construction of the Project is not anticipated to significantly add to the existing exposure of people to Valley fever.

Naturally Occurring Asbestos

The project is in Madera County, which is among the counties found to have serpentine and ultramafic rock in their soils. However, according to the California Geological Survey, no such rock has been identified in the Project vicinity. When demolition is proposed during construction, the demolition of existing buildings may expose asbestos used in building materials. However, the Project would not involve any demolition or renovation as no current development exists on the Project site. Therefore, the potential risk for naturally occurring asbestos during Project construction is small and would not be significant.

Impact Analysis Summary

The Project is not a significant source of TAC emissions during construction. Additionally, the Project is not in an area with suitable habitat for Valley fever spores and is not in an area known to have naturally occurring asbestos. While the emissions from operations resulting from implementation of the Project are expected to exceed the SJVAPCD's Project level thresholds, this does not in itself constitute a significant health impact. However, current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. Without quantification to guarantee a less than significant finding, the Project is considered to have *significant and unavoidable impacts* on sensitive receptors.

Mitigation Measures:

AIR-3 The City shall require all development within the Granite Creek Precise Plan Area that is subject to Rule 9510 to provide to the City Rule 9510 approval documentation, which would include Construction Clean Fleet paperwork for such projects making construction clean fleet commitments, prior to issuance of grading permits.

Impact 3.3-4: *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less Than Significant. The SJVAPCD addresses odor criteria within the GAMAQI. The SJVAPCD has not established a rule or standard regarding odor emissions, rather, the SJVAPCD has a nuisance rule: “Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact.”

During Project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. The proposed uses are not anticipated to emit any objectionable odors. Any odors in general would be confined mainly to the Project site and would readily dissipate. Therefore, the Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. As such, impacts would be *less than significant*.

Mitigation Measures:

None Required.

Cumulative Impacts

In analyzing cumulative impacts from the Project, the analysis must specifically evaluate a project’s contribution to the cumulative increase in pollutants of concern for the San Joaquin Valley Air Basin (Air Basin). A project would be considered to have a significant cumulative impact if its contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a “cumulatively considerable contribution” to the cumulative air quality impact). The geographic context for the analysis of cumulative impacts related to air quality is the Air Basin. The SJVAPCD’s attainment statuses are a result of cumulative emissions from all

sources of these air pollutants and their precursors within the Air Basin. For pollutants that the Air Basin is designated as non-attainment for the California Ambient Air Quality Standards and National Ambient Air Quality Standards, a cumulative impact exists regardless of the project's incremental contribution. Significance thresholds established by the SJVAPCD are used to manage total regional and local emissions within the Air Basin based on the Air Basin's attainment status for criteria pollutants.

Cumulative impacts from the Project are as follows:

- As identified in Impact 3.3-1, implementation of AIR-1 and AIR-2, would ensure that the Project complies with Regulation VIII, and further reduce the short-term construction period air quality impacts, and ensures compliance with air quality plans. As identified in Impact 3.3-3, implementation of AIR-3 would ensure that projects that qualify for the SJVAPCD's Rule 9510, submit approval documentation to the City prior to the issuance of grading permits. Additionally, long-term operational emissions associated with the Project, including area, energy, and mobile source emissions, would not exceed the significance criteria for annual CO, SO_x, or PM_{2.5} emissions. However, long-term operational emissions associated with mobile and area sources would result in annual emissions of ROG, NO_x, and PM₁₀ that exceed the SJVAPCD significance thresholds. Even with implementation of mitigation measures, the estimated ROG, NO_x, and PM₁₀ emissions generated under the Project would still exceed the SJVAPCD's significance thresholds and would cumulatively contribute to the nonattainment designations in the air basin for O₃. Therefore, the Project would conflict with or obstruct the implementation of SJVAPCD air quality plans. Because the Project-level impacts were determined to be significant and unavoidable after mitigation incorporation, the cumulative contribution is determined to also be *cumulatively significant and unavoidable*.
- Cumulative criteria pollutant impacts are discussed in Impact 3.3-2 and, within that analysis, the construction emissions associated with the Project would be less than significant with implementation of AIR-1 and AIR-2. However, as shown in Table 3.3-4, even with implementation of the mitigation measures and with compliance with the anticipated regulations, the estimated long-term emissions generated under the Project would still exceed the SJVAPCD's regional operational significance thresholds. As such, after mitigation incorporation, impacts are considered *cumulatively significant and unavoidable*.
- As identified in Impact 3.3-3, Project implementation will not expose sensitive receptors to substantial concentrations of TACs from construction. As also identified in Impact 3.3-

3, implementation of AIR-3 would ensure that projects that qualify for the SJVAPCD's Rule 9510, submit approval documentation to the City prior to the issuance of grading permits which would potentially reduce exposure of diesel emissions to nearby residents. However, as demonstrated in Table 3.3-5 above, the Project's long-term operational ROG, NO_x, and PM₁₀ emissions would exceed the SJVAPCD's significance criteria for annual ROG, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} emissions. While the emissions from operations resulting from implementation of the Project are expected to exceed the SJVAPCD's Project level thresholds, this does not in itself constitute a significant health impact. However, current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. Because the Project is considered to have *significant and unavoidable impacts* on sensitive receptors without quantification to guarantee a less than significant finding, the cumulative contribution is determined to also be *cumulatively significant and unavoidable*.

- As identified in Impact 3.3-4, the Project would not result in other emissions such as odors. Therefore, evaluation of the information supports a finding that the Project's contribution would be *less than cumulatively considerable* under this impact because the Project's local impact would be *less than significant*.

3.4 Biological Resources

This section of the DEIR addresses the biological resources present within the Project area. The section includes a discussion of the special-status species that may potentially occur within the Project area as well as any sensitive habitats in the area. It also recognizes the potential impacts of implementing the Project on such resources and identifies mitigation measures, where appropriate. The information and analysis presented in this Section are based on the desktop review and reconnaissance site survey conducted in the Biological Resource Evaluation (BRE) by Colibri Ecological Consulting, LLC (Colibri). The full BRE is provided in Appendix C.

Additionally, one NOP comment letter was received pertaining to this topic, from California Department of Fish and Wildlife (CDFW). CDFW provided recommendations and comments for the following species: Swainson's hawk, western burrowing owl, Crotch's bumble bee, California tiger salamander, American badger, northwestern pond turtle, western spadefoot toad, and valley elderberry longhorn beetle. Additionally, CDFW provided comments and recommendations regarding potential impacts to wildlife from artificial lighting and potential impacts to nesting birds. These comments and recommendations are discussed in Impacts 3.4-1 and 3.4-3 below.

Environmental Setting

The City of Madera is located in the center of the Central Valley in the southwestern part of Madera County. Agricultural lands form a perimeter around the City, which is mostly urbanized. According to the City of Madera General Plan EIR, prior to development, the natural vegetation within the vicinity of the City of Madera was characterized by vast stretches of savanna traversed by the riparian stands of the Fresno River and other waterways. The range of natural vegetation communities has been significantly reduced from historic levels as a result of conversion of these lands to urban and agricultural uses. According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service, the Project site is underlain by Hanford fine sandy loam, 0 to 1 percent slopes (34.7%); Pachappa fine sandy loam, 0 to 1 percent slopes (28%); Grangeville fine sandy loam, slightly saline-alkali, 0 to 1 percent slopes (10.5%); Delhi sand, 3 to 8 percent slopes, (8.1%); Tujunga loamy sand, 0 to 3 percent slopes (4.6%); Hanford sandy loam, moderately deep over sand, 0 to 3 percent slopes (4.4%); Hanford sandy loam, 0 to 3 percent slopes (2.4%); Delhi sand, 0 to 3 percent slopes, (%); Traver loam, slightly saline-alkali, 0 to 1 percent slopes (1.8%); Grangeville fine sandy loam, 0 to 1 percent slopes, (1.6%); Traver loam,

moderately saline-sodic, 0 to 1 percent slopes (0.9%); and Riverwash (0.8%).¹ The City of Madera is characterized by flat terrain of approximately 250 to 275 feet above mean sea level.

The Project site consists of an irrigated, maintained almond orchard and vineyard and an area of disturbed land in the north-central portion. Ruderal herbaceous vegetation was distributed throughout the Project site. The site was bordered by a Madera Irrigation District canal and the Fresno River to the north, rural residential development and idle agricultural lands to the south, an orchard to the west, and a residential development under construction to the east.

Desktop Review

As a framework for the evaluation and reconnaissance survey, a USFWS species list was obtained. Aerial imagery from Google Earth and other sources were reviewed, in addition to USGS topographic maps, the Web Soil Survey, the National Wetlands Inventory and other relevant literature. Also, the California Natural Diversity Database (CNDDB) was searched for special-status species for the Madera 7.5-minute USGS topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles, which produced 225 records of 34 species. Of those 34 species, five were not considered further because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California. Of the remaining 29 species, nine are known from within 5 miles of the Project site. Of those species, only the state candidate for listing as threatened burrowing owl (*Athene cunicularia*) could occur on or near the Project site. None of the other species nor the sensitive natural communities identified in the nine-quad search could occur on or near the Project site due to the lack of habitat.

The California Native Plant Society (CNPS) inventory of rare and endangered plants of California was also searched and produced 17 species, 16 of which have a California Rare Plant Rank (CRPR) of one or two and four of which are also state and federally listed. Of those 16 plant species, none could occur on or near the Project site due to the lack of habitat. See Figure 3.4-1 below for full list of special status species, their listing status, habitats, and potential to occur on or near the Project site.

There is one CNDDB occurrence record of burrowing owl from within 5 miles of the Project site. Two additional CNDDB occurrence records were found in the nine-quad search. California ground squirrel burrows on the Project site could support the species. However, the Project site

¹ Biological Resource Evaluation for the Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting December 2024. Appendix C. Page 16.

is routinely disturbed, and no sign of burrowing owl was detected during the 17 December 2024 reconnaissance survey. Therefore, the potential for this species to occur on or near the Project site is low. As identified in the species list, the Project site does not occur in USFWS-designated or proposed critical habitat for any species.

**Table 3.4-1
Special Status Species, Listing Status, Habitat and Occurrence Potential²**

Species	Status ¹	Habitat	Potential to Occur ²
Federally and State-Listed Endangered or Threatened Species			
Greene's tuctoria (<i>Tuctoria greenei</i>)	FE, SR, 1B.1	Vernal pools in open grasslands below 3445 feet elevation.	None. Habitat lacking; no vernal pools were in the survey area.
Hairy Orcutt grass (<i>Orcuttia pilosa</i>)	FE, SE, 1B.1	Vernal pools below 650 feet elevation.	None. Habitat lacking; no vernal pools were in the survey area.
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, SE, 1B.1	Vernal pools at or below 2700 feet elevation.	None. Habitat lacking; no vernal pools were found in the survey area.
Succulent owl's clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	FT, SE, 1B.2	Vernal pools with heavy clay soils at or below 2500 feet elevation.	None. Habitat lacking; no vernal pools were in the survey area.
Monarch California overwintering population (<i>Danaus plexippus</i>)	FPT	Groves of trees within 1.5 miles of the ocean that produce suitable micro-climates for overwintering such as high humidity, dappled sunlight, access to water and nectar, and protection from wind.	None. Habitat lacking; the Project site is not within 1.5 miles of the ocean.

² Biological Resource Evaluation for the Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting December 2024. Appendix C. Page 18.

Species	Status ¹	Habitat	Potential to Occur ²
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Elderberry (<i>Sambuchus</i> sp.) plants having basal stem diameter greater than 1" at ground level.	None. No elderberry shrubs were found in the survey area.
Vernal pool fairy shrimp ³ (<i>Branchinecta lynchi</i>)	FT	Vernal pools; some artificial depressions, ditches, stock ponds, vernal swales, ephemeral drainages, and seasonal wetlands.	None. Habitat lacking; no vernal pools or other suitable aquatic features were in the survey area; the canal north of the Project site is too frequently maintained and too frequently inundated to provide habitat for this species.
California tiger salamander ³ (<i>Ambystoma californiense</i>)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	None. Habitat lacking; an agricultural water storage pond was north of the Project site within the 1.24-mile dispersal distance of this species. According to historic Google Earth imagery (Google 2024), the agricultural storage pond is usually dry during the California tiger salamander breeding and larval period. Also, the Fresno River riparian area is a dispersal barrier to potential upland refugia on the Project site.
Western spadefoot ³ (<i>Spea hammondi</i>)	FPT, SSSC	Open areas with sandy or gravelly soil that allow rain pools to gather for breeding.	None. Habitat lacking; no vernal pool or other potential habitat was present in the survey area.

Species	Status ¹	Habitat	Potential to Occur ²
Blunt-nosed leopard lizard ³ (<i>Gambelia sila</i>)	FE, SE, FP	Upland scrub and sparsely vegetated grassland with small mammal burrows.	None. Habitat lacking; Project site lacked grassland and upland scrub.
Northwestern pond turtle (<i>Actinemys marmorata</i>)	FPT, SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation. Basking sites and suitable upland areas for egg laying.	None. Habitat lacking; the canal north of the Project site is too frequently maintained to provide habitat for this species.
Burrowing owl (<i>Athene cunicularia</i>)	SC	Grassland and upland scrub with friable soil; some agricultural or other developed and disturbed areas with ground squirrel burrows.	Low. The Project site contained numerous ground squirrel burrows. However, the Project site is routinely disturbed, and no sign was detected in the survey area during the 17 December 2024 reconnaissance survey.
Swainson's hawk ³ (<i>Buteo swainsoni</i>)	ST	Large trees for nesting with adjacent grasslands, alfalfa fields, grain fields, or other low-growing agricultural crops or open areas for foraging.	None. Habitat lacking; potential nest trees were within the 0.5-mile survey area; however, the surrounding land cover within the 0.5-mile survey area was dominated by incompatible orchards and residential development.
Tricolored blackbird (<i>Agelaius tricolor</i>)	ST, SSSC	Freshwater emergent wetlands, some agricultural fields, grassland, and silage fields near dairies.	None. Habitat lacking; the Project site lacked freshwater emergent wetlands, agricultural

Species	Status ¹	Habitat	Potential to Occur ²
			fields, grassland and silage fields.
Fresno kangaroo rat ³ (<i>Dipodomys nitratooides exilis</i>)	FT, SE	Sandy, alkaline, saline, and clay-based soils in upland scrub and grassland.	None. Habitat lacking; the Project site is outside the current known range of this species.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE, ST	Grassland and upland scrub and fallowed agricultural lands adjacent to natural grasslands or upland scrub.	None. Habitat lacking; the Project site is outside the current known range of this species.
State Species of Special Concern			
Coastal horned lizard (<i>Phrynosoma blainvillii</i>)	SSSC	Open, generally sandy areas, washes, and flood plains in a variety of habitats.	None. Habitat lacking; no open, generally sandy areas, washes, or flood plains were present in the survey area.
American badger (<i>Taxidea taxus</i>)	SSSC	Open, dry areas with friable soils and small mammal populations in grassland, conifer forests, and desert.	None. Habitat lacking; the Project site lacked open, dry areas with friable soils and small mammal populations in grassland, conifer forest, or desert.
California Rare Plants			
Alkali-sink goldfields (<i>Lasthenia chrysantha</i>)	1B.1	Vernal pools and wet saline flats below 320 feet elevation.	None. No vernal pool or wet saline flat habitats were present in the survey area.
California alkali grass (<i>Puccinellia simplex</i>)	1B.2	Saline flats and mineral springs below 3000 feet elevation.	None. Habitat lacking; the survey area lacked saline flats and mineral springs.

Species	Status ¹	Habitat	Potential to Occur ²
Heartscale (<i>Atriplex cordulata</i> var. <i>cordulata</i>)	1B.2	Saline or alkaline soils in grassland, meadows and seeps, and chenopod scrub communities below 230 feet elevation.	None. Habitat lacking; the survey area lacked saline flats and mineral springs.
Lesser saltscale (<i>Atriplex minuscula</i>)	1B.1	Sandy, alkaline soils in chenopod scrub, playa, and grassland in the San Joaquin Valley below 328 feet elevation.	None. Habitat lacking; the survey area lacked sandy, alkaline soils in chenopod scrub, playa, or grassland.
Madera leptosiphon ³ (<i>Leptosiphon serrulatus</i>)	1B.2	Openings in chaparral, cismontane woodland, and low elevation conifer forest at 980-4300 feet elevation.	None. Habitat lacking; the Project site is below the known elevational range of this species.
Munz's tidy tips ³ (<i>Layia munzii</i>)	1B.2	Alkaline clay soils in chenopod scrub and valley and foothill grassland at 300-2100 feet elevation.	None. Habitat lacking; the Project site is below the known elevation range of this species.
Recurved larkspur (<i>Delphinium recurvatum</i>)	1B.2	Poorly drained, fine, alkaline soils in grassland and saltbush scrub at 98-1969 feet elevation.	None. Habitat lacking; the Project site lacked poorly drained, fine, alkaline soils in grassland.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	1B.2	Ponds, sloughs, and ditches at sea level to 650 feet elevation.	None. Habitat lacking; the canal north of the Project site is too frequently maintained to provide habitat for this species.

Species	Status ¹	Habitat	Potential to Occur ²
Shining navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>)	1B.2	Clay depressions in vernal pools at 490-3280 feet elevation.	None. No vernal pool habitat was present on the Project site.
Spiny-sepaed button-celery ³ (<i>Eryngium spinosepalum</i>)	1B.2	Vernal pools, swales and roadside ditches in valley and foothill grassland.	None. Habitat lacking; no vernal pool habitat was present on the Project site.
Subtle orache ³ (<i>Atriplex subtilis</i>)	1B.2	Saline depressions below 230 feet elevation.	None. Habitat lacking; the Project site lacked saline depressions and is above the known elevational range of this species.
Vernal pool smallscale (<i>Atriplex persistens</i>)	1B.2	Alkaline vernal pools below 380 feet elevation.	None. Habitat lacking; the Project site lacked alkaline vernal pools.
Status:¹ FC=Federal Candidate for listing FE=Federally listed as Endangered FT=Federally listed as Threatened FPT=Federally Proposed Threatened FP=State Fully Protected SC=State Candidate for listing SE=State listed as Endangered ST=State listed as Threatened SSSC=State Species of Special Concern		Potential to Occur:² None: Species or sign not observed; conditions unsuitable for occurrence. Low: Neither species nor sign observed; conditions marginal for occurrence. Moderate: Neither species nor sign observed; conditions suitable for occurrence. High: Neither species nor sign observed; conditions highly suitable for occurrence. Present: Species or sign observed; conditions suitable for occurrence.	
CNPS California Rare Plant Rank¹: 1B=plants rare, threatened, or endangered in California or elsewhere. 2B=plants rare, threatened, or endangered in California but more common elsewhere.		Threat Ranks¹: 0.1=seriously threatened in California (>80% of occurrences). 0.2=moderately threatened in California (20-80% of occurrences).	

Species	Status ¹	Habitat	Potential to Occur ²
3= plants about which more information is needed. 4= plants have limited distribution in California.		0.3=not very threatened in California (<20% of occurrences).	

³ Record from within 5 miles of the Project site.

Field Surveys

Land Use and Habitats

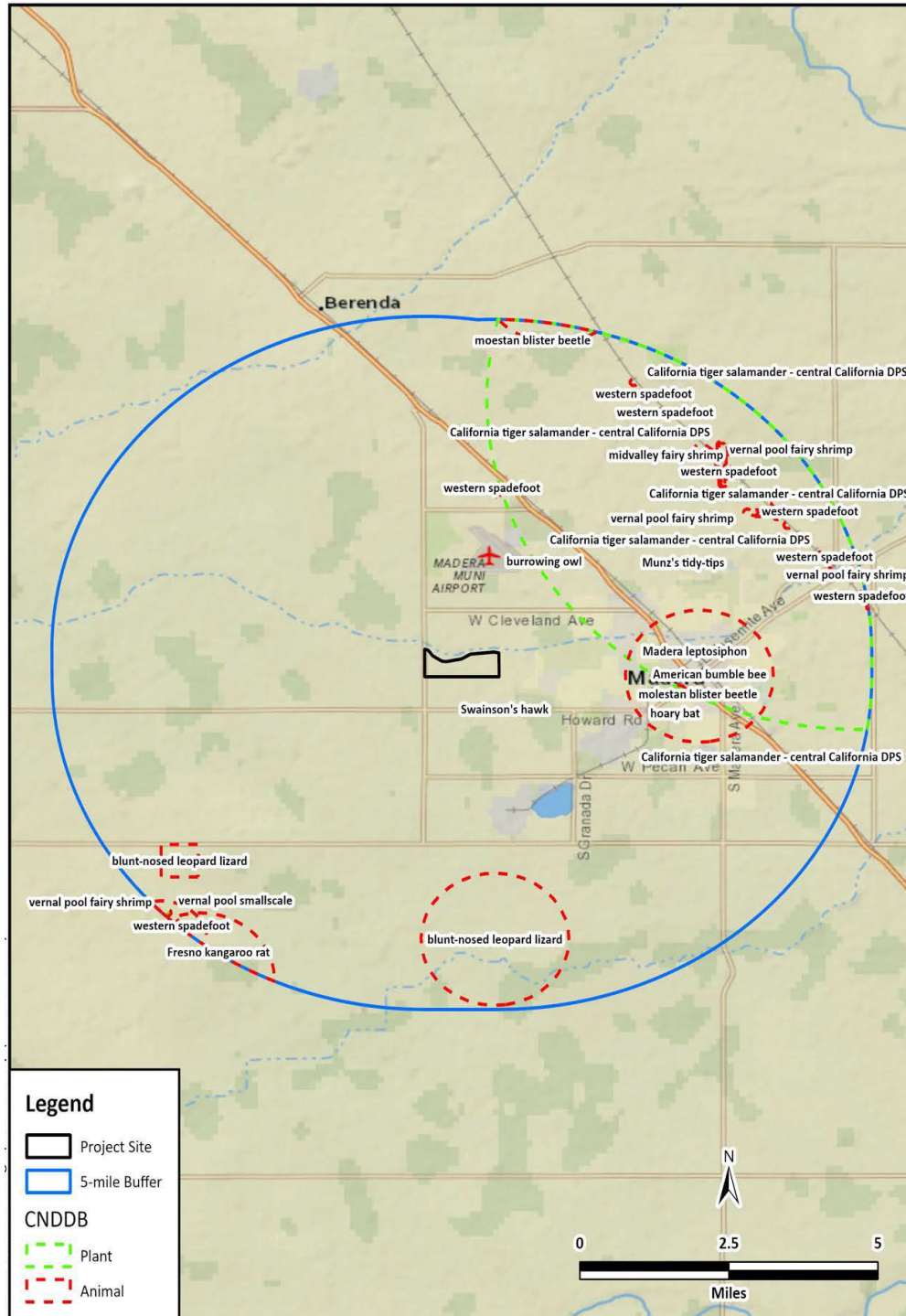
The Project site consists of an irrigated, maintained almond orchard and vineyard with an area of disturbed land in the north-central portion. Ruderal herbaceous vegetation is distributed throughout the Project site. The disturbed area in the north-central portion of the Project site contains piles of tree limbs, a felled tree, and bricks and other debris. At the time of the survey, California ground squirrel (*Otospermophilus beecheyi*) and other small mammal burrows were present throughout the north-central and northeastern portions of the Project site and along the canal in the survey area. The site is bordered by a Madera Irrigation District canal and the Fresno River to the north, rural residential development and idle agricultural lands to the south, an orchard to the west, and a residential development under construction to the east. The Project site supports agricultural land that has been used for cultivation since at least 1985.³

Observed Species

A total of 26 plant species (nine native and 17 nonnative), 19 bird species, and two mammal species were observed during the survey (Table 3.4-2).

³ Biological Resource Evaluation for Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting. December 2024. Appendix C. Page 26.

Figure 3.4-1
CNDDDB Species within 5 miles of Project site⁴



⁴ Biological Resource Evaluation for Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting. December 2024. Appendix C. Page 25.

Table 3.4-2
Species Observed During Site Reconnaissance⁵

Common Name	Scientific Name	Status
Plants		
Family Amaranthaceae		
Pigweed amaranth	<i>Amaranthus albus</i>	Nonnative
Prostrate pigweed	<i>Amaranthus blitoides</i>	Native
Family Asteraceae		
Common sow thistle	<i>Sonchus oleraceus</i>	Nonnative
Canada horseweed	<i>Erigeron canadensis</i>	Native
Flax-leaved horseweed	<i>Erigeron bonariensis</i>	Nonnative
Telegraph weed	<i>Heterotheca grandiflora</i>	Native
Family Boraginaceae		
Common fiddleneck	<i>Amsinckia menziesii</i>	Native
Family Brassicaceae		
Lesser swine cress	<i>Lepidium didymum</i>	Nonnative
Sheperd's purse	<i>Capsella bursa-pastoris</i>	Nonnative
Short pod mustard	<i>Hirschfeldia incana</i>	Nonnative
Family Caryophyllaceae		
Common chickweed	<i>Stellaria neglecta</i>	Nonnative
Family Chenopodiaceae		
Russian thistle	<i>Salsola tragus</i>	Nonnative
Family Geraniaceae		

⁵ Biological Resource Evaluation for Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting. December 2024. Appendix C. Page 30.

Common Name	Scientific Name	Status
Musky stork's bill	<i>Erodium moschatum</i>	Nonnative
Family Laminaceae		
Henbit deadnettle	<i>Lamium amplexicaule</i>	Nonnative
Family Malvaceae		
Cheeseweed mallow	<i>Malva parviflora</i>	Nonnative
Family Onagraceae		
Panicked willow herb	<i>Epilobium brachycarpum</i>	Native
Family Phrymaceae		
Seep monkeyflower	<i>Mimulus guttatus</i>	Native
Family Poaceae		
Annual meadow grass	<i>Poa annua</i>	Nonnative
Barnyard grass	<i>Echinochloa crus-galli</i>	Nonnative
Bermuda grass	<i>Cynodon dactylon</i>	Nonnative
Foxtail barley	<i>Hordeum murinum</i>	Nonnative
Jungle rice	<i>Echinochloa colona</i>	Nonnative
Saltgrass	<i>Distichlis spicata</i>	Native
Family Polygonaceae		
Prostrate knotweed	<i>Polygonum aviculare</i>	Nonnative
Family Solanaceae		
Sacred datura	<i>Datura wrightii</i>	Native
White nightshade	<i>Solanum americanum</i>	Native
Birds		
Family Accipitridae		
Cooper's hawk	<i>Accipiter cooperii</i>	MBTA, CFWC

Common Name	Scientific Name	Status
Red-tailed hawk	<i>Buteo jamaicensis</i>	MBTA, CFWC
Family Anatidae		
Canada goose	<i>Branta canadensis</i>	MBTA, CFWC
Family Cathartidae		
Turkey vulture	<i>Cathartes aura</i>	MBTA, CFWC
Family Charadriidae		
Killdeer	<i>Charadrius vociferus</i>	MBTA, CFWC
Family Columbidae		
Mourning dove	<i>Zenaida macroura</i>	MBTA, CFWC
Family Corvidae		
American crow	<i>Corvus brachyrhynchos</i>	MBTA, CFWC
California scrub-jay	<i>Aphelocoma californica</i>	MBTA, CFWC
Family Emberizidae		
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	MBTA, CFWC
Family Falconidae		
American kestrel	<i>Falco sparverius</i>	MBTA, CFWC
Family Fringillidae		
American goldfinch	<i>Spinus tristis</i>	MBTA, CFWC
House finch	<i>Haemorhous mexicanus</i>	MBTA, CFWC
Family Mimidae		
Northern mockingbird	<i>Mimus polyglottos</i>	MBTA, CFWC
Family Parulidae		
Yellow-rumped warbler	<i>Setophaga coronata</i>	MBTA, CFWC
Family Picidae		

Common Name	Scientific Name	Status
Northern flicker	<i>Colaptes auratus</i>	MBTA, CFWC
Family Polioptilidae		
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>	MBTA, CFWC
Family Sturnidae		
European starling	<i>Sturnus vulgaris</i>	--
Family Trochilidae		
Anna's hummingbird	<i>Calypte anna</i>	MBTA, CFWC
Family Tyrannidae		
Black phoebe	<i>Sayornis nigricans</i>	MBTA, CFWC
Mammals		
Family Leporidae		
Desert cottontail	<i>Sylvilagus audubonii</i>	--
Family Sciuridae		
California ground squirrel	<i>Otospermophilus beecheyi</i>	--
MBTA = Protected under the Migratory Bird Treaty Act (16 USC § 703 et seq.); CFWC = Protected under the California Fish and Wildlife Code (FGC §§ 3503 and 3513).		

Nesting Birds

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, killdeer (*Charadrius vociferus*) and house finch (*Haemorhous mexicanus*). Large trees within 0.5 miles of the Project site could provide nesting substates for raptors.

Regulated Habitats

A Madera Irrigation District canal bordered the northern boundary of the Project site. The canal is listed in the National Wetlands Inventory as riverine with a classification of R4SBCx, which means unknown intermittent, streambed, seasonally flooded, and excavated. The canal contained

discontinuous, standing water during the 17 December 2024 reconnaissance survey. As the canal evidently lacks a continuous surface connection to a water of the United States, it is not likely regulated by the USACE. However, as it contained surface water and would be classified as a stream, it is likely under the regulatory jurisdiction of the SWRCB and the CDFW, respectively. Regardless, the Project is not expected to impact the canal.

Regulatory Setting

Federal Regulations

Federal Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (16 U.S.C. 704) (MBTA) makes it unlawful to “take” (kill, harm, harass, etc.) any migratory bird listed in 50 Code of Federal Regulations 10, including their nests, eggs, or products. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many other species.

Federal Endangered Species Act of 1973

Section 3 of the federal Endangered Species Act (ESA) defines an endangered species as any species or subspecies “in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as any species or subspecies of fish, wildlife, or plants “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Threatened or endangered species and their critical habitat are designated through publication of a final rule in the Federal Register. Designated endangered and threatened animal species are fully protected from “take” unless an applicant has an incidental take permit issued by the USFWS under Section 10 or incidental take statement issued under Section 7 of the ESA. A take is defined as the killing, capturing, or harassing of a species. Proposed endangered or threatened species, or their critical habitats, are those for which a proposed regulation, but no final rule, has been published in the Federal Register.

State of California Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA establishes

that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, plant and animal species may be formally designated as rare, threatened, or endangered through official listing by the California Fish & Wildlife Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, including the California Department of Fish & Wildlife (CDFW) and landowners than are species that have not been listed.

On private property, endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. Threatened plants are protected by CESA, and rare plants are protected by the NPPA. However, CESA authorizes that Private entities may take plant species listed as endangered or threatened under the ESA and CESA through a Federal incidental take permit issued pursuant to Section 10 of the ESA, if the CDFG certifies that the incidental take statement or incidental take permit is consistent with CESA.

In addition, the California Environmental Quality Act (CEQA) requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts.

California Environmental Quality Act—Treatment of Listed Plant and Animal Species

ESA and CESA protect only those species formally listed as threatened or endangered (or rare in the case of the State list). Section 15380 of the CEQA Guidelines independently defines “endangered” species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy and “rare” species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project normally will have a significant effect on the environment if it will substantially affect a rare or endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

Section 1602 of the California Fish and Wildlife Code

Streambeds and other drainages that occur within the Planning Area are subject to regulation by the CDFW. The CDFW considers most drainages to be “streambeds” unless it can be demonstrated otherwise. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel with banks and supports fish or other aquatic life. This includes watercourses having a surface or sub-surface flow that supports, or has supported, riparian vegetation. CDFW jurisdiction typically extends to the edge of the riparian canopy, and therefore, usually encompasses a larger area than Corps jurisdiction.

Porter-Cologne Act

The California State Water Resources Control Board (SWRCB) has determined in response to the U.S. Supreme Court decisions that reduce federal jurisdiction over Waters of the U.S., that the State would require that a Report of Waste Discharge be required for any discharge of waste, including fill, into “waters of the state”, other than those projects requiring a federal Clean Water Act (CWA) Section 404 permit and the State’s CWA Section 401 Certification of the federal permit, under the authority of the state Porter-Cologne Act. The Central Valley Regional Water Quality Control Board (Central Valley RWQCB) is responsible for issuing Waste Discharge Requirements (WDRs) to protect state surface and groundwater quality after reviewing a Report of Waste Discharge.

Sections 3503, 3503.5, and 3800 of the California Fish and Wildlife Code

These sections of the Fish and Wildlife Code prohibit the “take or possession of birds, their nests, or eggs.” Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a “take.” Such a take would also violate Federal law protecting migratory birds.

Incidental Take Permits (*i.e.*, Management Agreements) are required from the CDFW for projects that may result in the incidental take of species listed by the State of California as endangered, threatened, or candidate species. The permits require that impacts to protected species be minimized to the extent possible and mitigated to a level of insignificance.

Local Regulations*City of Madera General Plan*

Under City of Madera General Plan policies, any new development would have to ensure minimal disruption/loss of habitat that could support special status animal species. Natural Communities Conservation Plans (NCCP) will be required for development that would potentially affect sensitive habitat. The Natural Communities Conservation Planning Act allows a process for developing NCCPs under DFG direction. NCCPs provide regional protection of wildlife diversity, while allowing compatible development. The following policies apply to the Project:

CON-22: Residential, commercial, industrial and recreational projects shall avoid impacts to native wildlife and plant habitat to the extent feasible.

CON-24: To offset possible additional losses of native wildlife and plant habitat due to development projects, developers shall be responsible for mitigation. Such mitigation measures may include providing and permanently maintaining similar quality and quantity of replacement habitat, enhancing existing habitat areas or paying in-lieu funds to an approved wildlife habitat improvement and acquisition fund. Replacement habitat may occur either on site or at approved offsite locations, but preference shall be given to on-site replacement.

Action Item CON-24.1: The City shall require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain listed plant and/or wildlife species based upon the City's biological resource mapping provided in the General Plan EIR or other technical materials. This evaluation shall be conducted prior to the authorization of any ground disturbance.

Action Item CON-24.2: For those areas in which special-status species are found or likely to occur, the City shall require feasible mitigation of impacts to those species that ensure that the activity does not contribute to the decline of the affected species such that their decline would impact the viability of the species. Mitigation shall be determined by the City after the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) are provided an opportunity to comment.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Guidelines Appendix G Environmental Checklist Form. In accordance with Appendix G of the CEQA Guidelines, the Project would have a significant environmental impact if it would:

- 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;

- 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;
- Have a substantial adverse effect on state or federally-protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impacts and Mitigation Measures

Impact 3.4-1: *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 Impact with Mitigation Incorporated. As discussed in Table 3.4-1, only the state candidate for listing as threatened burrowing owl (*Athene cunicularia*) could occur on or near the Project site, as detailed below.

Burrowing owl

Burrowing owl (BUOW) is a member of the family Strigidae recognized as a state candidate for listing as threatened or endangered by the CDFW. It occurs primarily in grassland but can persist and even thrive in agricultural or other developed and disturbed areas. Burrowing owl depends on burrow systems excavated by other species such as California ground squirrel and American badger (*Taxidea taxus*). The burrowing owl uses burrows for protection from predators, weather, as roosting sites, and dwellings to raise young. It commonly perches outside burrows on mounds of soil or nearby fence posts. Prey types include insects, especially grasshoppers and crickets,

small mammals, frogs, toads, and lizards. The nesting season begins in March, and incubation lasts 28–30 days. The female incubates the eggs while the male forages and delivers food items to the burrow-nest; young then fledge between 44 and 53 days after hatching. Adults can live up to eight years in the wild.⁶

There is one CNDDDB occurrence record of burrowing owl from within 5 miles of the Project site. Two additional CNDDDB occurrence records were found in the nine-quad search. California ground squirrel burrows on the Project site could support the species. However, the Project site is routinely disturbed, and no sign of burrowing owl was detected during the 17 December 2024 reconnaissance survey. Therefore, the potential for this species to occur on or near the Project site is low. CDFW has issued a Staff Report (Staff Report) on Burrowing Owl Mitigation⁷ which provides steps to effectively evaluate whether a project will impact this species, including habitat assessment and surveys, and it provides mitigation measures required to reduce potential impacts. Mitigation measures **BIO-1** through **BIO-3**, will ensure that the procedures outlined in the Staff Report will be implemented and will reduce impacts to a less than significant level.

As described above, during the NOP public review period, CDFW provided recommendations and comments for the following species: Swainson's hawk, western burrowing owl, Crotch's bumble bee, California tiger salamander, American badger, northwestern pond turtle, western spadefoot toad, and valley elderberry longhorn beetle, as discussed below.

Swainson's Hawk

The Project site is within the known geographic range of Swainson's hawk (SWHA) and there is a historical occurrence documented within a ½ mile of the Project site. SWHA are known to breed within the Central Valley of California and prefer to nest near and forage in alfalfa, fallow fields, field crops, and grassland habitats with a sufficient source of small mammals. The BRE states that SWHA does not have the potential to occur on or near the Project site due to a lack of suitable habitat. CDFW doesn't concur that SWHA are absent from the Project site and vicinity, as, based on aerial, the Project site contains agricultural lands suitable for SWHA foraging and there are trees located along the northern and southern boundaries of the Project site that may provide

⁶ Biological Resource Evaluation for Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting. December 2024. Appendix C. Page 33.

⁷ California Department of Fish and Wildlife. Staff Report on Burrowing Owl Mitigation. March 7, 2012. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/file:///C:/Users/emily/Downloads/BUOW_MIT_StaffReport2012.pdf. Accessed April 2026.

suitable perching and nesting habitat.⁸ As such, mitigation measures **BIO-4 through BIO-6** will reduce potential impacts to less than significant.

Crotch's Bumble Bee

The Project site is within the known geographical range of Crotch's bumble bee (CBB). CBB are known to inhabit areas of grasslands and scrub that contain requisite habitat elements for nesting, such as small mammal burrows and bunch/thatched grasses. Based on aerial imagery, these habitat elements may be present within the Project site, particularly within the northern section of the Project site. CDFW recommends a qualified biologist conduct a habitat assessment as part of the biological technical studies to determine if the Project site and the immediate surrounding vicinity contain habitat suitable to support CBB. As such, mitigation measure **BIO-7** is included to reduce potential impacts to less than significant.

California Tiger Salamander

The Project site is within the known geographic range of California tiger salamander (CTS) and a historical occurrence has been documented within 2 ½ miles of the Project site.⁹ CTS are known to breed and develop in vernal and seasonal pools and stock ponds in grassland habitat types and have been determined to be physiologically capable of dispersing up to approximately 1.5 miles from these habitats. The BRE states the species has low potential to occur on or near the Project site due to unsuitable habitat, the BRE states, "According to historic Google Earth imagery (Google 2024), the agricultural storage pond is usually dry during the California tiger salamander breeding and larval period." CDFW doesn't concur that review of Google Earth imagery alone is sufficient to determine the agricultural pond lacks the duration of ponding to facilitate CTS breeding. Additionally, as the Project is located near potential ponding habitat in the canal and the Fresno River. Mitigation Measure **BIO-8** is included to reduce potential impacts to less than significant.

American Badger

The Project site is within the known geographic range of American badger (AMBA) and a historical occurrence has been documented within 8 miles from the Project site.¹⁰ AMBA occupy sparsely vegetated land cover with dry, friable soils to excavate dens, which they use for cover,

⁸ California Department of Fish and Wildlife. NOP Response Letter for the Granite Creek Precise Plan Project. Dated May 21, 2025. See Appendix A.

⁹ California Department of Fish and Wildlife. NOP Response Letter for the Granite Creek Precise Plan Project. Dated May 21, 2025. See Appendix A.

¹⁰ Ibid.

and that support fossorial rodent prey populations (i.e., ground squirrels, pocket gophers, etc.). The BRE states the species has low potential to occur on or near the Project site due to lacking suitable habitat; however, CDFW doesn't concur as, based on aerial imagery and the information provided in the NOP, the northern section of the Project site contains suitable habitat for AMBA denning and foraging. As AMBA have the potential to den and/or forage within the Project site, potential impacts could affect the species. Mitigation measure **BIO-9** is included to reduce potential impacts to less than significant.

Northwestern Pond Turtle

The Project site is within the known geographical range of northwestern pond turtle (WPT). WPT utilize streams, ponded areas, irrigation canals, and riparian and upland habitats for nesting, overwintering, dispersal, and basking. WPT are known to nest in the spring or early summer within 100 meters of a water body, although nest sites as far away as 500 meters have also been reported. Noise, vegetation removal, movement of workers, construction and ground disturbance as a result of Project activities have the potential to significantly impact WPT populations. The BRE notes WPT do not have the potential to occur on or near the Project site due to lacking suitable habitat, and no surveys were documented for the species. CDFW doesn't concur that there is no potential for WPT to occur. Based on aerial imagery, suitable breeding and upland habitat may be present within the vicinity of the Project, particularly within the northern section of the Project site. Without appropriate avoidance and minimization measures for WPT, potentially significant impacts associated with Project activities could occur. Mitigation measure **BIO-10** is included to reduce potential impacts to less than significant.

Western Spadefoot

The Project site is within the known geographic range of western spadefoot (WESP) and a historical occurrence has been documented within 2 ½ miles of the Project site.¹¹ WESP occurs primarily in grasslands, oak woodlands, and coastal sage scrub. Some populations persist for a few years in orchard or vineyard habitats. The BRE notes the species has a low potential to occur on or near the Project site due to lacking suitable habitat, and states, "no vernal pool or other potential habitat was present in the survey area." CDFW doesn't concur that suitable habitat is lacking from the Project site and vicinity as potential ponding and breeding habitat is present is

¹¹ California Department of Fish and Wildlife. NOP Response Letter for the Granite Creek Precise Plan Project. Dated May 21, 2025. See Appendix A.

present within the canal and adjacent Fresno River. Mitigation measure **BIO-11** is included to reduce potential impacts to less than significant.

Valley Elderberry Longhorn Beetle

The Project site is within the known geographical range of valley elderberry longhorn beetle (VELB). VELB inhabit elderberry (*Sambucus* spp.) thickets which are often located within riparian and remnant riparian habitat. Riparian habitat within the Central Valley has been highly fragmented due to land conversion. CDFW doesn't concur that there is no potential for VELB to occur. Based on aerial imagery, suitable habitat may be present within the vicinity of the Project, particularly within the northern section of the Project site. Mitigation measure **BIO-12** is included to reduce potential impacts to less than significant.

As described above, significant impacts to a special status species could occur; however, implementation of mitigation measures **BIO-1 through BIO-12** would provide specific avoidance and protection measures that will help ensure that potential impacts are *less than significant*.

Mitigation Measures:

BIO-1: Burrowing owl (BUOW) Pre-construction Surveys

Preconstruction surveys following the methodology described in the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report) shall be conducted the survey season immediately prior to prior to any development or ground-disturbance activities associated with the Project. Please note that the 2012 Staff Report necessitates multiple surveys the survey season prior to ground-disturbance activities.

BIO-2: BUOW Avoidance Buffer

Should a BUOW or known BUOW den (active or inactive) be detected, either during pre-construction surveys or construction activities, a no-disturbance buffer, as outlined in the Staff Report and identified below, shall be implemented prior to and during any ground-disturbing activities. These buffers shall also be implemented for both wintering and breeding BUOW.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m (656 ft)	500 m (1640 ft)	500 m (1640 ft)
Nesting sites	Aug 16-Oct 15	200 m (656 ft)	200 m (656 ft)	500 m (1640 ft)
Nesting sites	Oct 16-Mar 31	50 m (164 ft)	100 m (328 ft)	500 m (1640 ft)

CITY OF MADRA

m = meters, ft = feet

Buffers should be implemented for both wintering and breeding BUOW

BIO-3: BUOW Take Authorization

If a BUOW or known BUOW den (active or inactive) is detected, and the no-disturbance buffers outlined in the Staff Report are not feasible, consultation with CDFW shall occur to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.

BIO-4: SWHA Surveys Prior to Construction

Preconstruction surveys following the methodology developed by the SWHA Technical Advisory Committee shall be conducted within the survey season immediately prior to construction.

BIO-5: SWHA Avoidance Buffer

If Project-specific earth-moving activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, a minimum ½-mile no-disturbance buffer shall be delineated and maintained around each nest, regardless of whether it was detected by surveys or observed incidentally. These buffers shall remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, to prevent nest abandonment and other take of SWHA as a result of Project activities.

BIO-6: SWHA Take Authorization

If an active SWHA nest is detected during Project-related earth-moving activities, and a ½-mile no-disturbance buffer is not feasible, consultation with CDFW shall occur to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.

BIO-7: Protect Crotch's Bumble Bee (CBB)

A qualified biologist shall conduct a site survey to document all potential nesting sites for the CBB, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs. If potentially suitable habitat is identified, a qualified biologist shall conduct focused surveys for CBB, and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species. If surveys indicate the presence or potential presence of CBB, consultation with the CDFW shall be conducted for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.

BIO-8: Protect California Tiger Salamander (CTS)

A qualified biologist shall conduct a robust habitat assessment of the Project site and Project vicinity, including an appropriate habitat assessment buffer, to determine whether suitable breeding or dispersal habitat may be present for the CTS prior to earth-moving activities. If it is determined that suitable habitat is present, a qualified biologist shall conduct protocol-level surveys in accordance with the U.S Fish and Wildlife (USFWS) “Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander” (USFWS CTS Protocol). If surveys indicate the presence or potential presence of CTS, consultation with the CDFW shall occur for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Wildlife Code section 2081 subdivision (b) is necessary to comply with CESA.

BIO-9: Protect American Badger (AMBA)

A qualified biologist shall assess the presence or absence of AMBA by conducting a focused field survey in all areas of potentially suitable habitat prior to earth moving activities. If surveys indicate the presence or potential presence of AMBA, consultation with the CDFW shall occur for guidance on mitigation measures such as avoidance, minimization, and mitigation.

BIO-10: Protect Northwestern Pond Turtle (WPT)

Prior to the commencement of earth moving activities, a qualified biologist shall conduct focused surveys for WPT within the northern portion of the Project site and within areas of suitable habitat within the Project vicinity as part of the biological technical studies conducted in support of the DEIR. If surveys indicate the presence or potential presence of WPT, consultation with the CDFW shall occur for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation.

BIO-11: Protect Western Spadefoot (WESP)

A qualified biologist shall conduct focused surveys to identify presence of WESP on the Project site prior to any earth moving activities. If these surveys indicate the presence or potential presence of WESP, consultation with the CDFW shall occur for guidance on surveys and mitigation measures such as avoidance, minimization, and mitigation.

BIO-12: Protect Valley Elderberry Longhorn Beetle (VELB)

A qualified biologist shall conduct a habitat assessment on the Project site and the immediate surrounding vicinity prior to any earth moving activities to determine if there is habitat suitable to support VELB. If it is determined that suitable habitat is present, consultation with CDFW and USFWS shall occur for guidance on surveys and mitigation measures such as avoidance, minimization, and mitigation.

Impact 3.4-2: *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, or have a substantial adverse effect on federally or state-protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Less Than Significant Impact with Mitigation. The Project site does not support any sensitive natural communities. No riparian habitat, wetlands or other sensitive natural community are present on-site and the site does not overlap critical habitat. The Madera Irrigation District canal which borders the properties to the north is not expected to be impacted by the Project development as construction activities will not extend to the canal.

During the NOP public review process, CDFW provided comments and recommendations regarding potential impacts to wildlife from artificial lighting and potential impacts to nesting birds (addressed in Impact 3.4-3, below). CDFW determined that potential impacts could occur to wildlife species utilizing the Fresno River riparian corridor due to artificial night lighting, as detailed below.

The northern portion of the Project site is immediately adjacent to the Fresno River riparian corridor and installation of outdoor artificial night lighting would likely disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication, determining when to begin foraging, thermoregulation behavior, and migration.¹² Phototaxis, a phenomenon which results in attraction and movement towards light, can disorient, entrap, and temporarily blind wildlife species that experience it. Project activities could result in disruption of wildlife behavior, inadvertent injury, or mortality. As such, mitigation measure **BIO-13** is included to reduce potential impacts to less than significant.

Therefore, the Project would have less than significant impacts to sensitive natural communities with mitigation incorporated.

Mitigation Measures

BIO-13: Protect Wildlife from Artificial Lighting

The following measures shall be implemented to all light fixtures within 400 feet of the Fresno River Corridor, and as depicted on site plans submitted for City review during the entitlement process:

- All light fixtures should be shielded and directional, directing light strictly downward to the ground.
- Cool blue or bright white lights shall be replaced with warmer tones, such as yellow or amber, ideally below 3,000 Kelvins.
- The lowest wattage or lumen output necessary for the task shall be used.
- Light fixtures shall be mounted as low to the ground as possible to minimize the distance light travels through the environment while still ensuring safety.

¹² California Department of Fish and Wildlife. NOP Response Letter for the Granite Creek Precise Plan Project. Dated May 21, 2025. See Appendix A.

Impact 3.4-3: *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 site?*

Less Than Significant Impact with Mitigation Incorporated. Migratory birds are expected to nest on and near the Project site and would likely be disturbed due to construction and operational activities. Accordingly, the Project has the potential to impede the use of nursery sites for native birds protected under the MBTA and CFGC. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered take under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Mitigation measure **BIO-14** is included to reduce potential impacts to less than significant.

As discussed above, implementation of mitigation measure **BIO-14** will reduce potential impacts to a *less than significant* level.

Mitigation Measure

BIO-14: Protect nesting birds.

All ground-disturbing activities shall occur during the bird non-nesting season (September 16 through February 14); however, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season (February 15 through September 15), a qualified biologist shall conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. The survey shall cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. A qualified biologist shall also conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, a qualified biologist shall continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, construction work causing that change shall halt and consultation with CDFW shall occur for additional avoidance and minimization measures. If continuous monitoring of identified nests by a qualified biologist is not feasible, a minimum no-disturbance buffer of

250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors shall be identified. These buffers shall remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, as determined by the qualified biologist, such as when the construction areas would be concealed from a nest site by topography. A qualified biologist shall advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

Impact 3.4-4: *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

No Impact. No trees or biologically sensitive areas will be impacted and there is no adopted tree preservation policy. No Habitat Conservation Plan, Natural Communities Conservation Plan or other approved local, regional, or state habitat conservation plan has been adopted in the area. There is *no impact*.

Mitigation Measure

None are required.

Cumulative Impacts

Would the Project make a cumulatively considerable contribution to a significant cumulative impact related to biological resources?

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to biological resources are the geographic areas covered by the City of Madera General Plan / EIR and the County of Madera General Plan / EIR. Mitigation measures associated with this topic are included to ensure that potential impacts to biological resources remain less than significant at a project level. Cumulative development would result in the conversion of existing potential

habitat to urban uses. Both the City's and County's General Plan EIR, in addition to regional, State and federal regulations, include policies and measures that mitigate impacts to biological resources associated with future development.

As described in this impact section, the Project proposes to annex the 327-acres of property into the City and would accordingly change the existing land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses as detailed in Figure 2-4. The Project site could provide habitat for the state candidate for listing as threatened burrowing owl (*Athene cunicularia*) and potential nesting sites for migratory birds. However, implementing Mitigation Measures BIO-1 through BIO-14 would reduce any impacts to less than significant, resulting in a less than considerable contribution to cumulative impacts. As development occurs in the region, the City and County will review projects on a case-by-case basis at the time each is considered for approval. Most projects in the region would generally occur within or around urban areas that have either been previously disturbed or are near existing urban development. However, some future projects may occur on undeveloped portions of the City and County that could result in potential impacts to biological resources. However, these projects would likely be required to implement mitigation measures in order to reduce these potential impacts to less than significant levels. Compliance with applicable state and federal permit requirements for these resources would be required for all future projects, which would ensure that these projects would not significantly affect sensitive biological resources or contribute to a cumulatively significant impact to such resources in the area.

Implementation of the Project, with mitigation, would not make a cumulatively considerable contribution to any significant impact to biological resources.

3.5 Energy

This section of the DEIR analyzes the Project's potential impacts on energy resources. The information and analysis presented in this Section are based on the Air Quality, Energy and Greenhouse Gas Impact Report (AQHRAGGE) prepared for this Project by LSA Consulting, report date January 2026. The full AQHRAGGE can be reviewed in Appendix B. No NOP comment letters were received pertaining to this topic.

Environmental Setting

Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Energy Usage

Energy usage is typically quantified using the British Thermal Unit (BTU). Total energy consumption in California was 6,817 trillion BTU in 2023 (the most recent year for which this specific data is available), which equates to an average of 174 million BTU per capita.¹ Of California's total energy usage, the breakdown by sector is 42 percent transportation, 22 percent industrial, 17 percent commercial, and 17 percent residential.² Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use.

While BTUs measure total energy usage, electricity is generally measured in kilowatt-hours (kWh) which is the standard billing unit for energy delivered to consumers by electrical utilities.

¹ U.S. Energy Information Administration, California State Energy Profile. <https://www.eia.gov/state/print.php?sid=CA>. Accessed February 2026.

² Ibid.

The electricity consumption attributable to Madera County from 2013 to 2024 is shown in Table 3.5-1. As indicated, energy consumption in Madera County varied approximately 1.73 percent over the last 10 years.

Table 3.5-1
Electricity Consumption in Madera County 2013 – 2024³

Year	Electricity Consumption (giga-watt hours)
2013	1,575
2014	1,655
2015	1,688
2016	1,576
2017	1,561
2018	1,626
2019	1,544
2020	1,700
2021	1,776
2022	1,789
2023	1,548
2024	1,687

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and, therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel.

³ California Energy Commission. Electricity Consumption. <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0>. Accessed April 2026.

Natural gas is provided to the Project area by Southern California Gas Company. The natural gas consumption attributable to Madera County from 2013 to 2024 is provided in Table 3.5-2. Natural gas consumption in Madera County varied approximately 2.1 percent over the 10-year span.

Table 3.5-2
Natural Gas Consumption in Madera County 2013 – 2024⁴

Year	Natural Gas Consumption (in millions of Therms)
2013	47
2014	48
2015	52
2016	54
2017	55
2018	57
2019	57
2020	54
2021	51
2022	49
2023	48
2024	51

Transportation Energy

According to the U.S. Energy Administration, transportation accounts for the largest share of the state's energy consumption. Californians have more registered motor vehicles and travel more vehicle miles than residents in any other state (not per capita). California accounts for one-tenth of U.S. motor gasoline consumption and about one-seventh of the nation's jet fuel consumption. Overall, the state's transportation sector accounts for nearly two-fifths of California's total energy consumption.⁵

California has led the states in the most electric vehicles (EVs) and EV charging locations every year since 2016. California is part of the West Coast Green Highway, an extensive network of

⁴ California Energy Commission. Natural Gas Consumption. <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-1>. Accessed February 2026.

⁵ U.S. Energy Information Administration. California Profile Analysis. Updated June 2025. <https://www.eia.gov/state/analysis.php?sid=CA>. Accessed February 2026.

electric vehicle DC fast charging locations located along Interstate 5. The state has about 16,800 public charging locations. In 2023, California had about 1.2 million registered battery electric vehicles, the most of any state. California also requires all public transit agencies to gradually transition to 100% zero-emission bus (ZEB) fleets. Beginning in 2029, all new transit agency bus purchases must be ZEBs.⁶

According to the Board of Equalization (BOE), statewide taxable sales figures estimate a total of 69 million gallons of gasoline and 60 million gallons of diesel fuel were sold in Madera County in 2023.⁷

Regulatory Setting

Federal Regulations

Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on nonrenewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Corporate Average Fuel Economy Standards

On March 31, 2022, the NHTSA finalized the Corporate Average Fuel Economy (CAFE) standards for Model Years 2024–2026 Passenger Cars and Light Trucks. The amended CAFE standards would require an industry wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024–2025, and 10 percent annually for model year 2026. The final standards are estimated to save about 234 billion gallons of gasoline between model years 2030 to 2050.

⁶ U.S. Energy Information Administration. California State Energy Profile. <https://www.eia.gov/state/print.php?sid=CA>. Accessed February 2026.

⁷ California Energy Commission. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2023. <https://www.energy.ca.gov/media/3874> Accessed February 2026.

State of California Regulations

Assembly Bill 1575, Warren Alquist Act

In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575 (also known as the Warren-Alquist Act), which created the CEC. The statutory mission of the CEC is to forecast future energy needs; license power plants of 50 megawatts (MW) or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and *State CEQA Guidelines* Section 15126.4 to require Environmental Impact Reports (EIRs) to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the *State CEQA Guidelines*. Appendix F assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the *State CEQA Guidelines* also states that the goal of conserving energy implies the wise and efficient use of energy and the means of achieving this goal, including (1) decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as coal, natural gas, and oil; and (3) increasing reliance on renewable energy sources.

Senate Bill 1389, Energy: Planning and Forecasting

In 2002, the State Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

In compliance with the requirements of SB 1389, the CEC adopts an Integrated Energy Policy Report every 2 years and an update every other year. The most recently adopted report includes

the 2023 *Integrated Energy Policy Report*.⁸ The *Integrated Energy Policy Report* covers a broad range of topics, including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast. The *Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs.

Renewable Portfolio Standard

SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all the State's electricity come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.⁹

California Code

Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards, in Part 6 of Title 24 of the California Code of Regulations (CCR), known as the Energy Code. The CEC first adopted the Building Energy Efficiency Standards for Residential and Non-residential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The Energy Code is updated every 3 years, with the most recent update consisting of the 2022 Energy Code that became effective January 1, 2023. Mid-cycle supplements to the 2022 Code will become effective on July 1, 2024. The efficiency standards apply to both new construction and rehabilitation of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government

⁸ CEC. 2023. *2023 Integrated Energy Policy Report*. California Energy Commission. <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report-iepr/2023-integrated-energy-policy-report>. Accessed February 2026.

⁹ California Public Utilities Commission (CPUC). 2019. Renewables Portfolio Standard Program. <https://www.cpuc.ca.gov/rps>. Accessed February 2026.

agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in the Energy Code.

California Green Building Standards Code (CALGreen Code)

In 2010, the California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code took effect on January 1, 2011. The CALGreen Code is updated on a regular basis, with the most recent update consisting of the 2025 CALGreen Code standards that became effective January 1, 2026. The CALGreen Code established mandatory measures for residential and nonresidential building construction and encouraged sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and nonresidential buildings subject to the standard.

California Energy Efficiency Strategic Plan

On September 18, 2008, the CPUC adopted California's first Long-Term Energy Efficiency Strategic Plan, presenting a roadmap for energy efficiency in California. The Strategic Plan was updated in 2011. The Plan articulates a long-term vision and goals for each economic sector and identifies specific near-term, mid-term, and long-term strategies to assist in achieving those goals. The Plan also reiterates the following four specific programmatic goals known as the "Big Bold Energy Efficiency Strategies" that were established by the CPUC in Decisions D.07-10-032 and D.07-12-051:

- All new residential construction will be zero net energy (ZNE) by 2020.
- All new commercial construction will be ZNE by 2030.
- 50 percent of commercial buildings will be retrofitted to ZNE by 2030.
- 50 percent of new major renovations of State buildings will be ZNE by 2025.

Local Regulations

City of Madera General Plan

As noted previously, the Project site will be annexed into the City of Madera prior to development. As a result, the Madera General Plan is the applicable general plan.

The City of Madera addresses energy in the Conservation Element of the City's General Plan.¹⁰ The Conservation Element contains policies that work to conserve energy resources through the use of available technology and conservation practices. The following policies are applicable to the Project:

Policy CON-40 All public and private development – including homes, commercial, and industrial – should be designed to be energy-efficient.

Action Item CON-40.1: Work with the local energy providers and developers on voluntary incentive-based programs to encourage the use of energy-efficient designs and equipment

Action Item CON-40.2: Promote enhanced energy conservation standards for new construction through information handouts, outreach to the construction industry, or other methods.

Policy CON-44 The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of all private buildings and projects, including:

- Land planning and design techniques that preserve the natural environment and minimize disturbance of land.
- Site development to reduce erosion, minimize paved surfaces and runoff and protect vegetation, especially trees.
- Water conservation indoors and outdoors.
- Energy efficiency in heating/cooling systems, appliances, lighting and the building envelope.
- Selection of materials based on recyclability, durability and the amount of energy used to create the material.
- Waste reduction, reuse and recycling during construction and throughout the life of the project.

¹⁰ City of Madera General Plan, Conservation Element, October 2009. <https://www.madera.gov/media/5iifxhqp/city-of-madera-gp-12-04-20.pdf>. Accessed February 2026.

- Other new aspects of green design and construction included in LEED or other certification programs.
- Control nighttime lighting to lower energy use, reduce glare, and prevent illumination of the night sky.

Policy CON-45

The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of facilities constructed, owned, managed, or financed by the City. All new building projects (projects intended for human occupancy) involving the use of local public funds should incorporate green building practices. Except as dictated by unique circumstances associated with a given project, the typical standard for green building will be the equivalent of the “LEED Silver Standard.”

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, the Project will have a significant impact related to energy if it will:

- Result in a wasteful, inefficient or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct state or local plans for renewable energy or energy efficiency.

Methodology

Fuel consumption (diesel fuel and gasoline) from vehicle trips during operation was estimated for the opening year (2035) of the Project based on trip estimates from the CalEEMod model and fuel efficiencies from the CARB EMFAC2025 model. Estimates of fuel consumption (diesel fuel and gasoline) from construction trucks and construction worker vehicles were based on trip estimates from the CalEEMod model and fuel efficiencies from the CARB EMFAC2025 model.

The analysis focuses on the four sources of energy that are relevant to the Project: electricity, natural gas, the equipment fuel necessary for Project construction, and vehicle fuel necessary for Project operations. For the purposes of this analysis, the amount of electricity and natural gas, construction fuel, and fuel use from operations are quantified and compared to that consumed in Madera County. The electricity and natural gas use of the Project was analyzed as a whole on an annual basis. Electricity and natural gas use was estimated using default energy intensities by land use type in CalEEMod.

Impacts and Mitigation Measures

Impact 3.5-1: *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less Than Significant. The Project would increase the demand for energy through day-to-day operations and fuel consumption associated with Project construction. This section discusses energy use resulting from implementation of the Project and evaluates whether the Project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

Construction Energy Use

It is anticipated that full buildout of the Project site Project will be completed in approximately 9 years. The Project would require energy for activities such as the manufacture and transportation of building materials, grading activities, and building construction. Construction of the Project does not involve the consumption of natural gas. The construction-related equipment would not be powered by natural gas, and no natural gas demand is anticipated during construction.

Transportation energy represents the largest energy use during construction and would occur from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction worker vehicles that would use petroleum fuels (e.g., diesel fuel and/or gasoline). Therefore, the analysis of energy use during construction focuses on fuel consumption. Construction trucks and vendor trucks hauling materials to and from the Project site would be anticipated to use diesel fuel, whereas construction workers traveling to and from the Project site would be anticipated to use gasoline-powered vehicles. Fuel consumption from transportation use depends on the type and number of trips, VMT, the fuel efficiency of the vehicles, and the travel mode.

Estimates of fuel consumption (diesel fuel and gasoline) from construction equipment, construction trucks, and construction worker vehicles were based on default construction equipment assumptions and trip estimates from CalEEMod and fuel efficiencies from EMFAC2025. Fuel consumption estimates are presented in Table 3.5-3. CalEEMod output sheets and detailed energy calculations are included in Appendix B.

Table 3.5-3
Energy Consumption Estimates During Construction¹¹

Energy Type	Total Energy Consumption	Percentage Increase Countywide
Total Fuel Consumption		
Diesel Fuel (total gallons)	1,420,857.2	-
Gasoline (total gallons)	807,487.0	-
Annual Fuel Consumption		
Diesel Fuel (total gallons)	157,843.0	0.3
Gasoline (total gallons)	89,720.0	0.1

As indicated in Table 3.5-3, the Project would consume a total approximately 1,420,857.2 gallons of diesel fuel and approximately 807,487 gallons of gasoline during the construction period. Construction of the Project is anticipated to occur over 9 years. Therefore, when averaged over the 9-year construction period, the Project is estimated to consume approximately 157,843 gallons of diesel fuel and approximately 89,720.8 gallons of gasoline per year. Based on fuel consumption obtained from EMFAC2025, approximately 61.4 million gallons of gasoline and approximately 45.7 million gallons of diesel will be consumed from vehicle trips in Madera County in 2026. Therefore, the Project would increase the annual construction-generated fuel use in Madera County by approximately 0.3 percent for diesel fuel usage and by approximately 0.1 percent for gasoline fuel usage. As such, Project construction would have a negligible effect on local and regional energy supplies. Furthermore, impacts related to energy use during construction would be temporary and relatively small in comparison to Madera County's overall use of the State's available energy resources. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State. In addition, construction activities are not anticipated to result in inefficient use of energy because gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the Project. These measures include, but are not limited to, turning off construction equipment and vehicles when not in use for extended periods, using modern and well-

¹¹ Air Quality, Energy and Greenhouse Gas Impact Analysis for Granite Creek Plan Project, Madera County, California. LSA Consulting, September 2025. Page 56.

maintained equipment, and optimizing construction logistics to minimize haul distances. The Project would not cause or result in the need for additional energy facilities or an additional or expanded delivery system. For these reasons, fuel consumption during construction of the Project would not be inefficient, wasteful, or unnecessary.

Operational Energy Use

Operational energy use is typically associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with a project. As detailed in Mitigation Measure AIR-2, no usage of natural gas will be associated with the Project, or any project developed within the Project area. CalEEMod estimates direct emissions from natural gas combustion and indirect emissions from electricity, which would present a conservative energy usage estimation since no natural gas will be used with the Project. Therefore, as a conservative assumption, this analysis assumes that the unmitigated Project would utilize natural gas during Project operations. Energy consumption was estimated for the Project using default energy intensities by land use type in CalEEMod.

The Project would also result in energy usage associated with gasoline and diesel fuel consumed by Project-related vehicle and truck trips. Fuel use associated with vehicle and truck trips generated by the Project were calculated based on the Project's trip generation, which identifies that the Project would generate approximately 24,536 daily trips. The amount of operational fuel use was estimated using CARB's EMFAC2025 model, which provided projections for typical daily fuel usage in Madera County. Electricity, natural gas, and fuel usage estimates associated with operation of the Project are shown in Table 3.5-4.

Table 3.5-4
Energy Consumption Estimates During Operation¹²

Energy Type	Annual Energy Consumption
Electricity Consumption (kWh/year)	15,620,033.0
Natural Gas (Therms/year)	584,455.0
Gasoline (gallons/year)	2,265,694.4
Diesel Fuel (gallons/year)	366,633.6

¹² Air Quality, Energy and Greenhouse Gas Impact Analysis for Granite Creek Plan Project, Madera County, California. LSA Consulting, September 2025. Page 57.

As shown in Table 3.5-4, the estimated potential increase in electricity demand associated with the operation of the Project is 15,620,033 kWh per year. Total electricity consumption in Madera County in 2024 was 1,687 GWh (~1,687,000,000 kWh). Therefore, operation of the Project would increase the annual electricity consumption in Madera County by approximately 1.2 percent.

As shown in Table 3.5-4, the estimated potential increase in natural gas demand associated with the operation of the unmitigated Project is 584,455 therms per year. Total natural gas consumption in Madera County in 2024 was 51 million therms. Therefore, operation of the Project would increase the annual natural gas consumption in Madera County by approximately 1.4 percent. However, the Project would be required to comply with MM AIR-2, which, among other measures, requires that the Project includes all electric development. Therefore, with implementation of MM AIR-2, the Project would not be increasing natural gas consumption in the region.

Electrical demand associated with Project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. Furthermore, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The Project would also be required to adhere to all federal, State, and local requirements for energy efficiency, including the Title 24 standards. Title 24 building energy efficiency standards establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would further reduce energy usage.

As shown in Table 3.5-4, the increase in fuel use associated with the vehicle trips generated by the Project is estimated at 2,265,694.4 gallons of gasoline and 366,633.6 gallons of diesel fuel per year. This analysis conservatively assumes that all vehicle trips generated as a result of Project operation would be new to Madera County. Based on fuel consumption obtained from EMFAC2025, approximately 37.5 million gallons of gasoline and approximately 34.7 million gallons of diesel will be consumed from vehicle trips in Madera County in 2035. Therefore, vehicle and truck trips associated with the Project would represent approximately six percent of the annual fuel use in Madera County for gasoline and approximately 1 percent of the annual fuel use for diesel. As discussed in further detail in the GHG analysis, the Project would result in fewer VMT per capita compared to the regional threshold and, therefore, would result in the efficient use of fuel for transportation.

Therefore, fuel consumption associated with vehicle trips generated by the Project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

As such, Project would not result in a potential significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. Additionally, Mitigation Measure AIR-2, as presented in Impact 3.3-2, includes emission reduction measures in the following areas: transportation and circulation measures, building energy and electrification measures, renewable energy and site design measures, and landscaping and water efficiency measures. Implementation of Mitigation Measure AIR-2 would further reduce the potential for wasteful, inefficient, or unnecessary consumption of energy resources. Thus, any impacts would be considered *less than significant*.

Mitigation Measures:

None are required.

Impact 3.5-2: *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less Than Significant. In 2002, the Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the Integrated Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for ZEVs and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The CEC's 2024 *Integrated Energy Policy Report Update* provided the results of the CEC's assessments of a variety of energy issues facing California. As indicated above, energy usage during construction of the Project would be temporary in nature and relatively small in comparison to the overall use in the County. In addition, energy usage associated with operation of the Project would be relatively small in comparison to the overall use in Madera County, and the State's available energy resources. Therefore, energy impacts at the regional level would be

negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the Project's total impact on regional energy supplies would be minor, the Project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy Policy Report.

The City's General Plan includes energy efficiency policies CON-40, CON-44, and CON-45 that are relevant to the Project. The Project would comply with each policy through the required compliance with the CALGreen Code, as ensured during City review, and the energy efficiency standards set forth in AIR-2. Additionally, as demonstrated above, the Project would not result in the inefficient, wasteful, and unnecessary consumption of energy. In conclusion, potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no additional mitigation is required. The impact is considered *less than significant*.

Mitigation Measures

See AIR-2 in Chapter 3.3, Air Quality.

Cumulative Impacts

Less Than Cumulatively Considerable. Potential cumulative impacts on energy would result if the Project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. This could result from development that would not incorporate sufficient building energy efficiency features, would not achieve building energy efficiency standards, or would result in the unnecessary use of energy during construction and/or operation. The cumulative projects within the areas serviced by the energy service providers would be applicable to this analysis; this includes existing aging structures that are energy inefficient. Projects that include development that would have the potential to consume energy in an inefficient manner would have the potential to contribute to a cumulative impact.

As previously described, the Project would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary use of energy due to various design features, including installation of solar, EV charging equipment, bicycle parking, as well as following standards that promote energy efficiency, water efficiency and conservation, and material conservation and resource efficiency. Similar to the Project, newly constructed cumulative projects would be subject to CALGreen, which is primarily enforced by the City of Madera Building and Development Department through mandatory plan checks, building permits, and on-site inspections, which

provides energy efficiency standards for commercial and residential buildings. Over time, CALGreen would implement increasingly stringent energy efficiency standards that would require the Project and newly constructed cumulative projects to minimize the wasteful and inefficient use of energy. Furthermore, new vehicles are subject to various federal and state regulations - including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program and over time, the new vehicles will replace older, less efficient vehicles, and the transportation fuel demand of cumulative projects will be decreased.

Development associated with build-out of the Project would be required to accommodate growth. As discussed above, new development would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which could decrease estimated electricity and natural gas consumption compared to the existing land use. Furthermore, energy consumed by development in the Project area would continue to be subject to the regulations described in the Regulatory Setting of this Section. For these reasons, energy that would be consumed by the Project is not considered unnecessary, inefficient, or wasteful. Considering the information provided above, the Project, in conjunction with other cumulative development, would not result in a significant cumulative impact to energy resources. Impacts are *less than cumulatively considerable*.

3.6 Geology/Soils

This section of the DEIR identifies potential impacts of implementing the Project on geology and soils. No NOP comment letters were received pertaining to this topic.

Environmental Setting

Geologic Setting

Madera is part of the Great Valley Geomorphic Province of California, more commonly referred to as the San Joaquin Valley, one of several geomorphic provinces in the state. The San Joaquin Valley is a structural trough up to 200 miles long and 70 miles wide. It is filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains, respectively. Continental deposits shed from the surrounding mountains (the Sierra Nevadas to the east and Coastal Range to the west) form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. This depositional axis is below to slightly west of the series of rivers, lakes, sloughs, and marshes, which mark the current and historic axis of surface drainage in the San Joaquin Valley.

The City of Madera area is basically flat with some undulating slopes, lying at an elevation of approximately 250-275 feet above sea level. The Fresno River flows through the northcentral portion of the City. The river, as well as smaller streams such as Schmidt and Cottonwood Creeks, form alluvial fans. Much of the topography along these banks has been heavily modified as a result of flood control and other efforts.¹

Topography

The Project site is located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area consists of two (2) properties that total approximately 204 acres, generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Project site is currently developed with agriculture, specifically grape vines and almond trees. The Project area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. The south side of the Project area includes a combination of residential uses and agricultural uses. The site is generally flat and

¹ City of Madera General Plan Update, Draft Environmental Impact Report. May 2009. Chapter 4, Geology and Soils. Page 4.8-1.

is at an elevation of approximately 238-250 feet above mean sea level². The topography in the area consists of a slight upward slope to the west.

Soils

A Custom Soil Resource Report was prepared for the Project (Appendix E). According to that Report, the site is underlain by Hanford fine sandy loam, 0 to 1 percent slopes (35.2%); Pachappa fine sandy loam, 0 to 1 percent slopes (29.3%); Grangeville fine sandy loam, slightly saline-alkali, 0 to 1 percent slopes (10.3%); Delhi sand, 3 to 8 percent slopes (8.1%); Tujunga loamy sand, 0 to 3 percent slopes (4.7%); Hanford sandy loam, moderately deep over sand, 0 to 3 percent slopes (3.7%); Hanford sandy loam, 0 to 3 percent slopes (2.5%); Delhi sand, 0 to 3 percent slopes (2.4%); Traver loam, slightly saline-alkali, 0 to 1 percent slopes (1.4%); Grangeville fine sandy loam, 0 to 1 percent slopes (1.5%); Traver loam, moderately saline-sodic, 0 to 1 percent slopes (0.6%); and Riverwash (0.2%). The primary soil type, Hanford fine sandy loam, is generally regarded to be well drained with negligible to low runoff and moderately rapid permeability.³ Hanford soils are used for growing a wide range of fruits, vegetables, and general farm crops. They are also used for urban development and dairies. Vegetation in uncultivated areas is mainly annual grasses and the associated herbaceous plants. Pachappa fine sandy loam, which is the second most common soil type in the Project area, generally has good drainage as well. Surface runoff is very slow, and permeability is moderate. In places the soil is subject to occasional overflow and high-water table.⁴ This soil type is mostly under irrigation for alfalfa, small grains and row crops as well as dry farm small grains. Yields are normally good and can include annual grasses, herbs and shrubs.

Faults

The City of Madera is in a seismically stable region of the State, however, five major active and potentially active faults are relatively close to the City of Madera's Planning Area; the San Andreas, San Joaquin, Ortigalita, Owens Valley, and Melones Faults. Of these, the San Andreas and the Owens Valley faults are expected to be the sources of future major earthquakes. No active

² Biological Resource Evaluation for the Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting December 2024. Appendix C. Page 17.

³ United States Department of Agriculture, Natural Resources Conservation Service. Official Soil Series Descriptions, Hanford. https://soilseries.sc.egov.usda.gov/OSD_Docs/H/HANFORD.html. Accessed February 2026.

⁴ United States Department of Agriculture, Natural Resources Conservation Service. Official Soil Series Descriptions, Pachappa. https://soilseries.sc.egov.usda.gov/OSD_Docs/P/PACHAPPA.html. Accessed February 2026.

earthquake faults area located in the Planning Area – the closest active faults are more than 50 miles away.⁵

Asbestos

Asbestos is a naturally occurring fibrous material once commonly used as a fireproofing and insulating agent in building construction before the EPA banned such uses in the 1970s. Asbestos can also be atmospherically deposited from vehicle brake shoes. Naturally occurring asbestos can be found in serpentinite or other metamorphosed ultramafic rocks such as dunite, peridotite, and pyroxenite. According to large scale mapping of ultramafic rocks in California, no known ultramafic rocks outcrops are present in the City of Madera.

Regulatory Setting

Federal Regulations

Earthquake Hazards Reduction Act

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

NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results.

The NEHRPA designates FEMA as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities.

Paleontological Resources Preservation Act

⁵ City of Madera General Plan Update, Draft Environmental Impact Report. May 2009. Chapter 4, Geology and Soils. Page 4.8-4.

The primary legislation pertaining to fossils from National Park Service (NPS) and other federal lands is the Paleontological Resources Preservation Act of 2009 (PRPA) (16 U.S.C. § 470aaa 1-11) which was enacted on March 30, 2009 within the Omnibus Public Land Management Act of 2009. PRPA directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to manage and protect paleontological resources on Federal land using scientific principles and expertise.

State Regulations

Seismic Hazards Mapping Act (SHMA of 1990)

Under the Seismic Hazards Mapping Act, the State Geologist is responsible for identifying and mapping seismic hazards zones as part of the California Geologic Survey (CGS). The CGS provides zoning maps of non-surface rupture earthquake hazards (including liquefaction and seismically induced landslides) to local governments for planning purposes. These maps are intended to protect the public from the risks associated with strong ground shaking, liquefaction, landslides or other ground failure, and other hazards caused by earthquakes. For projects within seismic hazard zones, the Seismic Hazards Mapping Act requires developers to conduct geological investigations and incorporate appropriate mitigation measures into project designs before building permits are issued.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires lead agencies to consider the potential effects of a project on unique paleontological resources. CEQA requires an assessment of impacts associated with the direct or indirect destruction of unique paleontological resources or sites that are of value to the region or the state.

2025 California Building Code

The California Building Code is another name for the body of regulations known as the California Code of Regulations (C.C.R.), Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist- Priolo Earthquake Fault Zoning Act (formerly the Alquist- Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults

in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazards associated with fault rupture and to prohibit the location of most structures for human occupancy across these traces.

Local Regulations

City of Madera Building Code

The City of Madera adopted the 2025 California Building Code as the City's building code and ordinance (Title IX, Chapter 1: Building Regulations), effective January 1, 2026. The Subdivision Ordinance states that the City Engineer may require a preliminary soils report. If the preliminary soils report indicates the presence of critically expansive soils or other soil problems, which, if not corrected, would lead to structural defects, the soils report accompanying the final map shall contain an investigation of each lot within the subdivision (Madera Municipal Code, Title X, Chapter 2: Subdivisions, § 10-2.402.3 Accompanying Data and Reports).

City of Madera General Plan

The existing Madera General Plan discusses geologic hazards within the Planning Area in the Health and Safety Element (Chapter 6). The chapter identifies the seismic- and geologic-related potential environmental impacts and the discusses the risks involved. The following policies and implementing actions from the City of Madera General Plan pertaining to geologic hazards are applicable to the Project.

HS-7: The City supports efforts by federal, state, and other local organizations to investigate local seismic and geological hazards and support those programs that effectively mitigate these hazards.

HS-8: The City shall seek to ensure that new structures are protected from damage caused by earthquakes, geologic conditions, or soil conditions.

Action Item HS-8.1: Adopt an All Hazards (natural and manmade) Disaster Plan. The Plan should be sufficiently broad in scope to include the designation of evacuation routes, staging areas, shelters, PODs (points of distribution), and protocols for coordinating all local government and volunteer agencies in assisting local residents in the event of a major earthquake, large scale fire or explosion, or hazardous chemical spill or release of hazardous airborne gas.

Madera County Local Hazard Mitigation Plan

A hazard mitigation plan is a formal document that outlays the plans to reduce or eliminate the long-term risk to human life and property from natural or man-made hazards. Madera County and three participating jurisdictions (cities of Chowchilla and Madera, and the North Fork Rancheria of Mono Indians) developed this Local Hazard Mitigation Plan (LHMP) update to make the County and its residents less vulnerable to future hazard events. The plan has been designed to meet seven goals; (1) minimize risk and vulnerability of Madera County to hazards and protect lives and prevent losses to property, public health and safety, economy, and the environment, (2) increase community outreach, education, and awareness of risk and vulnerability to hazards and promote preparedness and engagement to reduce hazard related losses, (3) improve communities' capabilities to prevent/mitigate hazard-related losses and to be prepared for, respond to, and recover from a disaster event, (4) increase and maintain wildfire prevention and protection in Madera County, (5) improve community resiliency to drought conditions including establishing a sustainable water supply in Madera County, (6) improve community resiliency to flooding in Madera County, and (7) Maintain FEMA eligibility for grant funding.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Appendix G Checklist Item.

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:
 - 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?
 - Strong seismic ground shaking?
 - Seismic-related ground failure, including liquefaction?
 - Landslides?
- Result in substantial soil erosion or the loss of topsoil?
- 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?

- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Impacts and Mitigation Measures

Impact 3.6-1: *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
- ii) *Strong seismic ground shaking?*
- iii) *Seismic-related ground failure, including liquefaction?*
- iv) *Landslides?*

Less Than Significant Impact with Mitigation. This impact analysis evaluates the Project's potential to expose persons or structures to seismic hazards (fault rupture, ground shaking, ground failure, and landsliding). Each of these hazards and their potential environmental impacts are discussed below.

Fault Rupture

The City of Madera is in a seismically stable region of the State. Five major active and potentially active faults are relatively near to the Planning Area: the San Andreas, San Joaquin, Ortigalita, Owens Valley, and Melones faults. Of these, the San Andreas and the Owens Valley faults are expected to be the sources of future major earthquakes. No active earthquake faults are located in the Planning Area—the closest active faults are 50 or more miles away. The lack of faults in the

Planning Area means that the potential for buildings to be damaged if they are placed atop a fault line does not exist.⁶

Strong Ground Shaking

As described above, there is not a significant risk of significant ground shaking due to seismic activity. Although the City of Madera is located in an area of low seismic activity, the regional faults have the potential to produce high-magnitude earthquakes throughout the area. The City of Madera is located on alluvial deposits, which tend to experience greater ground shaking intensities than areas located on hard rock. However, the distance to the faults that are the expected sources of the shaking would be sufficiently great that the effects should be minimal.

As part of the entitlement process, the City of Madera requires the applicant to prepare and submit a design-level geotechnical study that complies with all applicable seismic design standards of the California Building Standards Code. As required, the design-level analysis addresses site preparation measures and foundation design requirements of the Project and is prepared to the City of Madera standards which could include certification of engineered fills and subgrade preparation through monitoring of earthwork and compaction testing by a geotechnical engineer during construction. Compliance with required City standards and Mitigation Measure GEO-1 would ensure potential ground shaking impacts remain *less than significant*.

Seismic Related Ground Failure (including Liquefaction)

Liquefaction is a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. When this occurs, the soil can completely lose its shear strength and enter a liquefied state. The possibility of liquefaction is dependent upon grain size, relative density, confining pressure, saturation of the soils, and intensity and duration of ground shaking. In order for liquefaction to occur, three criteria must be met: “low density”, coarse-grained (sandy) soils, a groundwater depth of less than about 50 feet, and a potential for seismic shaking from nearby large-magnitude earthquake. The Project site primarily consists primarily of sandy loam and loam soils which are not known to induce liquefaction. The Project’s Valley location also has a low risk of liquefaction. The site is not located within a Liquefaction Zone.⁷ There is a negligible risk of liquefaction occurring at the

⁶ City of Madera General Plan, October 7, 2009. Chapter 6, Health and Safety Element. Page 6-5.

⁷ California Department of Conservation. CGS Information Warehouse. Regulatory Maps and Reports. <https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/>. Accessed February 2026.

Project site during a design level seismic event. Therefore, the impact is considered *less than significant*.

Landsliding

There are no substantial slopes on or near the Project site; the Biological Resource Evaluation performed on behalf of the Project found that the site has little topographical relief and is at an elevation of 238-250 feet above mean sea level. Therefore, the opportunity for slope failure in response to the long-term geologic cycle of uplift, mass wasting, and difference of slopes is unlikely. Compliance with all applicable seismic design standards of the California Building Standards Code, which is enforced during the City's entitlement process, would ensure that design features would not present a hazard involving landslides. Therefore, the impact is considered *less than significant*.

Mitigation Measures

GEO – 1 The Project proponent shall retain a registered geotechnical engineer to prepare a design level geotechnical analysis prior to the issuance of any grading and/or building permit. The design-level analysis shall address site preparation measures and foundation design requirements of the Project. The design-level analysis shall be prepared to the satisfaction of the City of Madera. Final design-level Project plans shall be designed in accordance with the approved geotechnical analysis. This shall include certification of engineered fills and subgrade preparation through monitoring of earthwork and compaction testing by a geotechnical engineer during construction.

Impact 3.6-2: Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact With Mitigation. Soils on the Project site consist primarily of Hanford and Pachappa fine sandy loam soils. Hanford fine sandy loam is generally regarded to be well drained with negligible to low runoff and moderately rapid permeability.⁸ Hanford soils are used for growing a wide range of fruits, vegetables, and general farm crops. They are also used for urban development and dairies. Vegetation in uncultivated areas is mainly annual grasses and the associated herbaceous plants. Pachappa fine sandy loam, which is the second most

⁸ United States Department of Agriculture, Natural Resources Conservation Service. Official Soil Series Descriptions. https://soilseries.sc.egov.usda.gov/OSD_Docs/H/HANFORD.html. Accessed February 2026.

common soil type in the Project area, generally has good drainage as well. Surface runoff is very slow, and permeability is moderate. In places the soil is subject to occasional overflow and high-water table.⁹ This soil type is mostly under irrigation for alfalfa, small grains and row crops as well as dry farm small grains. Yields are normally good and can include annual grasses, herbs and shrubs.

Construction activities associated with the Project involves ground preparation work for the proposed development of the site. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site.

Site grading would be minimized and would follow the existing topography of the Project site to the greatest extent feasible to limit potential erosion and maintain existing drainage patterns. The temporary and permanent site roadways would be graded and compacted prior to road construction. Any existing vegetation would be scarified and grubbed for the development of temporary and permanent access roads, and the soil surface would be smoothed, moisture conditioned, and compacted with a crown in the center and swale on the side to prepare the roadway surface. Grading, excavation, removal of vegetation cover, development of access roads, and disturbance of soils during construction activities would result in the disturbance of an area greater than 1 acre and would temporarily increase erosion, runoff, and sedimentation. Construction activities would also result in soil compaction and wind erosion effects that could adversely affect soils at the construction sites and staging areas.

During grading, erosion prevention measures would be implemented, including the separation of topsoil, whereby topsoil is separated and stockpiled separately from subsoil and stabilized to prevent erosion. When Project construction is complete, stripped subsoil and topsoil would be replaced as required. Other erosion and sediment control measures would include watering for dust control and soil compaction during grading and throughout construction activities.

The Applicant and/or contractor would be required to employ appropriate sediment and erosion control Best Management Practices (BMPs) as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required and submitted to the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) in accordance with the National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be minimized through implementation of the San Joaquin Valley Air Pollution Control District (SJVAPCD)

⁹ United States Department of Agriculture, Natural Resources Conservation Service. Official Soil Series Descriptions. https://soilseries.sc.egov.usda.gov/OSD_Docs/P/PACHAPPA.html. Accessed February 2026.

fugitive dust control measures (See Section 3.3 – Air Quality). Once construction is complete, the Project would not result in significant soil erosion or loss of topsoil. Mitigation Measure **GEO – 2** (requirement to prepare a SWPPP) will ensure that impacts remain *less than significant*.

Mitigation Measures:

GEO – 2 In order to reduce on-site erosion due to construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System (NPDES). The erosion component of the plan must at least meet the requirements of the SWPPP required by the Central Valley RWQCB. If earth disturbing activities are proposed between October 15 and April 15, these activities shall be limited to the extent feasible to minimize potential erosion related impacts. Additional erosion control measures may be implemented in consultation with the City of Madera. Prior to the issuance of a grading permit, any Project developer within Plan area shall submit detailed plans to the satisfaction of the City of Madera. The components of the erosion control plan and SWPPP shall be monitored for effectiveness by the City of Madera. Erosion control measures shall include at minimum, but may not be limited to, the following:

- i. Limit disturbance of soils and vegetation disturbance removal to the minimum area necessary for access and construction;
- ii. Confine all vehicular traffic associated with construction to the right-of-way of designated access roads;
- iii. Adhere to construction schedules designed to avoid periods of heavy precipitation or high winds;
- iv. Ensure that all exposed soil is provided with temporary drainage and soil protection when construction activity is shut down during the winter periods; and
- v. Inform construction personnel prior to construction and periodically during construction activities of environmental concerns, pertinent laws and regulations, and elements of the proposed erosion control measures.

Impact 3.6-3: *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 With Mitigation. As previously discussed herein, the Project would not be located within an area identified as a landslide hazard area. The Project is located on relatively flat agricultural land uses, and the threat of a landslide occurring on or adjacent to the Project site is considered low. Therefore, potential impacts associated with landslides would be *less than significant*.

The Project would be located on soils that exhibit low potential for liquefaction during an earthquake, and the potential for lateral spreading to occur is considered low. A design-level geotechnical analysis will be required as identified in Mitigation Measure **GEO – 1**. The site would be designed in accordance with engineering design standards and structural improvement requirements to withstand the effects of soil settlement and collapsible soils. Engineered compacted fill would likely be used during construction in accordance with building code requirements, which would reduce the potential for lateral spreading of soils from Project construction. Therefore, with implementation of Mitigation Measure **GEO – 1**, and structural/foundation design in accordance with the City of Madera and 2025 California Building Code standards, ground shaking impacts on the Project area would be *less than significant with mitigation*.

Mitigation Measures

GEO-1

Impact 3.6-4: *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Less Than Significant Impact. As previously described, the soils present on the Project site have low potential for expansion. As discussed under Impact 3.6-3 above, the Project would be designed in accordance with all applicable building code requirements and structural improvement requirements, which would also address expansive soil hazards. Engineered compacted fill would likely be used during construction in accordance with building code requirements, which would reduce the potential for impacts from expansive soil on Project development. Therefore, with foundation and structural design in accordance with the City of Madera and 2025 California Building Code standards, impacts from expansive soil on the Project would be *less than significant*.

Mitigation Measures

None are required.

Impact 3.6-5: *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

No Impact. The Project will connect to the City's wastewater/sewer system and will require additional infrastructure (Please refer to Section 3.17 – Utilities for the discussion pertaining to Project-related wastewater, additional infrastructure and connection to the City's sewer system). The Project does not include the construction, replacement, or disturbance of septic tanks or alternative wastewater disposal systems. Therefore, there is *no impact*.

Mitigation Measures

None are required.

Impact 3.6-6: *Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

Less than Significant Impact with Mitigation. Paleontological resources are valued for the information they yield about the history of the earth and its past ecological settings. A review of the cultural and historical resources was provided in Section 3.5 of this EIR and 3.17 of the Initial Study, located in Appendix A. There are currently no unique geologic features located in the Project Area.

While the discovery of paleontological resources within the Project footprint is considered unlikely, Project buildout would adhere to California Public Resources Code Section 21083.2 which requires all earth-disturbing work to be temporarily suspended or redirected until a qualified paleontologist has evaluated the nature and significance of the records, in accordance with federal, State, and local guidelines. In addition, Mitigation Measure **CUL-1** would be implemented in the case of any inadvertent discoveries. With adherence to these regulatory requirements and measures, impacts would be *less than significant with mitigation*.

Mitigation Measure

CUL-1, as described in Section 3.5.

Cumulative Impacts

Would the project make a cumulatively considerable contribution to a significant cumulative impact related to geology, soils, seismicity, or paleontological resources?

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to geology and soils is generally site-specific rather than cumulative in nature because each project site has different geological considerations that would be subject to review. Construction of the individual development projects allowed under the City of Madera or Madera County General Plan may result in individual project risks associated with geology and soils. For example, there will always be a chance that a fault located anywhere in the state (or region) could rupture and cause seismic ground shaking. Additionally, grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation.

While some cumulative impacts may occur in the region as individual projects are constructed, the City's General Plan goals, objectives and policies, as well as State and federal regulations, will reduce the risk to people in the region. Considering the protection granted by local, state, and federal agencies and their requirements for the seismic design, as discussed above, the overall cumulative impact would not be significant. Implementation of the Project would not make a cumulatively considerable contribution to any significant impact to geological or soils resources.

3.7 Greenhouse Gas Emissions

This section discusses regional greenhouse gas (GHG) emissions and climate change impacts that could result from implementation of the Project. The information and analysis presented in this Section are based on the Air Quality, Health Risk, Greenhouse Gas and Energy Impact Report (AQHRAGGE) prepared for this Project by LSA Consulting, report dated January 2026. The full AQHRAGGE can be reviewed in Appendix B. No NOP comment letters were received pertaining to this topic.

Environmental Setting

Climate Change

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

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given by the full set of SRES scenarios, could range from 1.4 degrees Celsius (°C) to 5.8°C.¹ The report states, "Changes in the atmosphere, cryosphere and ocean show unequivocally that the world is warming,"² and that "It is very likely that anthropogenic greenhouse gas increases caused most of the observed increase in global average temperatures since the mid-20th century."³

Climate Change Impacts in California

California is already experiencing the impacts of a changing climate, including observable shifts in the frequency and severity of extreme weather events, such as more frequent and severe heat

¹ Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report (AR4). Global Climate Projections. Chapter 10, 10.5.3 – Global Mean Responses from Different Scenarios. Page 802. <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter10-1.pdf>. Accessed February 2026.

² Ibid. Technical Summary, page 51.

³ Ibid. Page 60.

waves and wildfires, more variable precipitation, and a succession of droughts that have increased as temperatures warm. Statewide trends are elaborated below⁴:

- **Temperature.** Annual temperature increases experienced over most of California have already exceeded 1°F, with some areas exceeding 2°F. The daily maximum average temperature, an indicator of extreme temperature shifts, is expected to rise 4.4°F–5.8°F by mid-century and 5.6°F–8.8°F by late century. Heat-Health Events (HHEs), which better predict risk to populations vulnerable to heat, will worsen drastically throughout the state. By midcentury, the Central Valley is projected to experience average HHEs that are two weeks longer, and HHEs could occur four to ten times more often in the Northern Sierra region.
- **Precipitation.** California is known for its highly variable precipitation and has the highest variability of year-to-year precipitation in the contiguous United States. California's variable precipitation is also characterized by multi-year wet or dry periods. As a result, future average precipitation is difficult to predict, but may likely not change substantially when measured by annual precipitation. However, there is high confidence in projections that even if precipitation remains stable or increases, drought severity and the number of dry years will increase, even as more extreme precipitation events may occur. Warming air temperatures will increase moisture loss from soils, which will lead to drier seasonal conditions even if precipitation increases. The snowpack in California's mountains is a key source of surface and groundwater in the state, and rising temperatures will cause a decline in snowpack by more than a third by 2050 and more than half by 2100, even if precipitation levels remain stable.
- **Wildfire.** Wildfires are driven by multiple, complex, and interacting factors such as the environment, land use, and human activity, all of which make future wildfires difficult to predict. In recent years, the area burned by wildfire in California has dramatically increased and unprecedented fires are occurring in sensitive ecosystems like higher elevations and along the coast. In addition, many of California's wildfires are burning hotter and more intensely than observed in recent history. Fires are concentrating in upper watersheds, further compounding crises like drought. The 2020 wildfires resulted in the largest wildfire season recorded in California's modern history, with nearly 10,000 fires that burned over four million acres in total. However, fewer than 40 fires accounted for

⁴ Summary of Projected Climate Change Impacts on California. California Climate Adaption Strategy. <https://climateresilience.ca.gov/overview/impacts.html>. Accessed February 2026.

the vast majority of the area burned, pointing to the accelerating severity and frequency of extreme fires. In 2021, California experienced 4 of the 20 largest wildfires in our history, with 8,000 wildfires burning over 2.5 million acres across the state. The 2021 fire season also marks the first time that fire crossed the granite crest of the Sierra, California's largest natural fuel break. A model developed for California's Fourth Climate Change Assessment projected up to a 77 percent increase in average area burned and a 50 percent increase in the frequency of fires exceeding 25,000 acres by 2100.

- **Sea-level rise, coastal flooding, and erosion.** Sea-level rise is already accelerating along the California coast and will continue to rise substantially over the 21st century, threatening coastal communities, natural resources, cultural sites, and infrastructure. The current best available science predicts that the state's coastline could experience between 1.1–1.9 feet of sea-level rise by 2050 (with a low-probability, but high impact extreme of 2.7 feet) and between 2.4–6.9 feet by 2100 (with a low-probability, but high impact extreme of 10.2 feet). Though we may be uncertain the exact amount of sea-level rise for a certain location at a certain year, we know that water levels are rising and communities need to be prepared. Coastal wave events and king tides, in combination with current and rising sea levels, will increase flood impacts on land, which will exacerbate the impact on coastal assets. Rising sea levels may also salinate coastal groundwater aquifers and raise groundwater tables, causing increased flooding leading to impacts that will further damage buried and low-lying infrastructure. Finally, rising water levels and increased storm activity will increase coastal erosion, impacting beaches and cliffs throughout the state. For example, a projected 31–67 percent of Southern California beaches are projected to be lost by the end of the century if adaptation actions are not implemented.
- **Ocean warming, hypoxia, and acidification.** The world's oceans absorb excess heat (~90%) and CO₂ (~30%) from greenhouse gas emissions, the former contributing to ocean warming and the latter to ocean acidification. Both warming and acidification can be catastrophic to marine ecosystems (e.g. disease, degradation, bleaching) and the coastal communities and industries that rely on them. Relatedly, deoxygenation or hypoxia of surface waters can lead to dead zones that further challenge marine habitats and species and cause cascading impacts for our coastal economies and communities.
- **Human health.** Climate change is considered the greatest global public health threat of the 21st century and affects virtually all aspects of health and well-being, including access to clean air, food, water, shelter, and physical safety. Communities across California are experiencing health impacts associated with the climate crisis today. Examples include

injury, illness, and death from wildfires and wildfire smoke, extreme heat, drought, landslides, extreme weather events, vector-borne diseases, and associated mental health impacts. Climate-driven disasters directly result in injuries, deaths, and displacement, but also loss of livelihoods, businesses, crops, and homes - contributing to unemployment, poverty, and the housing crisis. Direct impacts and subsequent cascading effects increase chronic diseases, infectious diseases, mental health challenges, and heat- and smoke-related illnesses. Climate change affects every Californian, but the most climate vulnerable communities and populations experience worse health impacts from the crisis than others.

Greenhouse Gases

Gases that trap heat in the atmosphere are called greenhouse gases. This section provides information on specific types of emissions.⁵

- **Carbon dioxide (CO₂):** Carbon dioxide enters the atmosphere through burning fossil fuels (coal, natural gas, and oil), solid waste, trees and other biological materials, and also as a result of certain chemical reactions (e.g., cement production). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices, land use, and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide (N₂O):** Nitrous oxide is emitted during agricultural, land use, and industrial activities; combustion of fossil fuels and solid waste; as well as during treatment of wastewater.
- **Fluorinated gases:** Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are synthetic, powerful greenhouse gases that are emitted from a variety of household, commercial, and industrial applications and processes. Fluorinated gases (especially hydrofluorocarbons) are sometimes used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). Fluorinated gases are typically emitted in smaller quantities than other greenhouse gases, but

⁵ Environmental Protection Agency. Greenhouse Gas Emissions, Overview of Greenhouse Gases. <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>. Accessed February 2026.

they are potent greenhouse gases. With global warming potentials that typically range from thousands to tens of thousands, they are sometimes referred to as high-GWP gases because, for a given amount of mass, they trap substantially more heat than CO₂.

Each gas' effect on climate change depends on concentration, how long the greenhouse gases stay in the atmosphere and how strongly each greenhouse gas impacts the atmosphere. For each greenhouse gas, a Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, typically a 100-year time horizon, relative to the emissions of 1 ton of carbon dioxide (CO₂). Gases with a higher GWP absorb more energy, per ton emitted, than gases with a lower GWP, and thus contribute more to warming Earth.⁶

Emissions Inventories and Trends

According to the CARB's recent GHG inventory for the State, released 2021, California produced 418.2 million metric tons of carbon dioxide equivalent (MMTCO₂e) in 2019. The major source of GHGs in California is transportation, contributing approximately 39.7 percent of the state's total GHG emissions in 2019.⁷ This puts total emissions at 12.8 MMTCO₂e below the 2020 target of 431 million metric tons. California statewide GHG emissions dropped below the 2020 GHG limit in 2016 and have remained below the 2020 GHG limit since then.

Regulatory Setting

International Regulations

Intergovernmental Panel on Climate Change

Created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), the objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies. IPCC reports are also a key input for international climate change negotiations. For the assessment reports, experts volunteer their time as IPCC authors to assess the thousands of scientific papers published each year to provide

⁶ Ibid.

⁷ California Air Resources Board (CARB). 2021. California Greenhouse Gas Emissions for 2000 to 2019. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed February 2026.

a comprehensive summary of what is known about the drivers of climate change, its impacts and future risks, and how adaptation and mitigation can reduce those risks.⁸

United Nations Framework Convention on Climate Change (Convention)

On March 21, 1994, the United States joined 197 other countries around the world in signing the Convention. The ultimate objective of the Convention is to stabilize greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system." It states that "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner." The Conventions bounds its member states to act in the interest of human safety even in the face of scientific uncertainty.⁹

Federal Regulations

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO₂ emissions under the CAA.

While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change, including the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the CAA, finding that seven GHGs (CO₂, CH₄, N₂O, HFCs, NF₃, PFCs, and SF₆) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

State of California Regulations

The CARB is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

⁸ Intergovernmental Panel on Climate Change (IPCC), About the IPCC. <https://www.ipcc.ch/about/>. Accessed February 2026.

⁹ United Nations Climate Change. What is the United Nations Framework Convention on Climate Change? <https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change>. Accessed February 2026.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California’s major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) of CO_{2e}. The emissions target of 427 MMT requires the reduction of 169 MMT from the State’s projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT CO_{2e}, or approximately 30 percent, from the State’s projected 2020 emissions level of 596 MMT CO_{2e} under a business-as-usual scenario (this is a reduction of 42 MMT CO_{2e}, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State’s GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_{2e});
- The Low-Carbon Fuel Standard (15.0 MMT CO_{2e});
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_{2e}); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_{2e}).

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and also sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The Update highlights California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State’s “longer-term” GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,¹⁰ to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

¹⁰ California Air Resources Board, *California’s 2017 Climate Change Scoping Plan*. November 2017.
https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf. Accessed February 2026.

Most recently, the 2022 Scoping Plan¹¹ was approved in December 2022 and assesses progress towards achieving the SB 32 2030 target and lay out a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California will be zero-emission by 2035, and all other fleets will have transitioned to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

Senate Bill 375 (2008). Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every 4 years and must update them every 8 years. MPOs, in turn, must demonstrate how their plans, policies, and transportation investments meet the targets set by the CARB through SCSs. The SCSs are included with the Regional Transportation Plan, a report required by State law. However, if an MPO finds that its SCS will not meet the GHG reduction target, it may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015). Governor Jerry Brown signed Executive Order (EO) B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

¹¹ California Air Resources Board. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 2022. https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf. Accessed February 2026.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California’s renewable portfolio standard from 33 percent to 50 percent; and
- Increasing energy efficiency in buildings by 50 percent by the year 2030.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197

In summer 2016 the Legislature passed, and the Governor signed, SB 32, and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emission reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown’s April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State’s 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO₂e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100. On September 10, 2018, Governor Brown signed SB 100, which raises California’s Renewables Portfolio Standard (RPS) requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. EO B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative

emissions thereafter.” EO B-55-18 directs CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_{2e} from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill 1279. AB 1279 was signed in September of 2022, and codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant state agencies to achieve these goals.

Executive Order N-79-20. EO N-79-20, which was signed by the Governor on September 23, 2020, sets the following goals for the State: 100 percent of in-state sales of new passenger cars and trucks shall be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the State shall be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and 100 percent of off-road vehicles and equipment in the State shall be zero-emission by 2035, where feasible.

Regional Regulations

San Joaquin Valley Air Pollution Control District

Climate Change Action Plan. The San Joaquin Valley Air Pollution Control District Climate Change Action Plan (CCAP) was adopted on August 21, 2008. The CCAP includes suggested best performance standards for proposed development projects. However, the SJVAPCD’s CCAP was adopted in 2009 and was prepared based on the State’s 2020 GHG targets, which are now superseded by State policies (i.e., the 2022 California Green Building Standards Code [CALGreen Code]) and the 2030 GHG targets, established in SB 32.

Local Regulations

Madera County Transportation Commission

Madera County Transportation Commission (MCTC) is the Regional Transportation Planning Agency, Metropolitan Planning Organization (MPO), and the Local Transportation Commission for Madera County. The Commission is responsible for the development and adoption of the Regional Transportation Plan and Transportation Improvement Program.

Regional Transportation Plan/Sustainable Communities Strategy. Regional Transportation Plans (RTPs) are State-mandated plans that identify long-term transportation needs for a region’s

transportation network. MCTC 2022 RTP¹² charts the long-range vision of regional transportation in Madera County through 2046. The RTP identifies existing and future transportation-related needs, while considering all modes of travel, analyzing alternative solutions, and identifying priorities for the anticipated available funding for projects and multiple programs included within the RTP. Senate Bill (SB) 375, which went into effect in 2009, added statutes to the California Government Code to encourage planning practices that create sustainable communities. It calls for each metropolitan planning organization to prepare a Sustainable Communities Strategy (SCS) as an integrated element of the RTP that is to be updated every 4 years. The SCS is intended to show how integrated land use and transportation planning can lead to lower GHG emissions from automobiles and light trucks. MCTC has included the SCS in its 2022 RTP.

City of Madera General Plan

As noted previously, the Project site will be annexed into the City of Madera prior to development. As a result, the Madera General Plan is the applicable general plan.

The City of Madera addresses GHGs in the Conservation Element of its General Plan.¹³ The Conservation Element includes goals and policies that work to reduce emissions of greenhouse gases that contribute to global climate change in accord with federal and State law. The following policies from the Conservation Element are related to GHGs and are applicable to the Project:

Policy CON-35 The City shall implement and enforce State and Regional regulations pertaining to greenhouse gas emissions and climate change.

Policy CON-36 The City supports local, regional, and statewide efforts to reduce the emission of greenhouse gases linked to climate change.

Action Item CON-36.2: Within six months of the completion of the Greenhouse Gas Inventory if possible (but not later than one year after completion of the Inventory), the City will, in collaboration with stakeholders and the community, prepare a Climate Action Plan (CAP) that incorporates and/or addresses the following criteria:

¹² Madera County Transportation Commission. 2022 *Regional Transportation Plan and Sustainable Communities Strategy*. August 2022. Website: <https://www.maderactc.org/transportation/page/your-madera-2046-rtpscs>. Accessed February 2026.

¹³ City of Madera General Plan, Conservation Element. October 2009. Website: <https://www.madera.gov/media/5iifxhqp/city-of-madera-gp-12-04-20.pdf>. Accessed February 2026.

- The CAP will identify goals for reducing manmade greenhouse gas (GHG) emissions from the community, municipal and business activities.
- The CAP will establish resiliency and adaptation programs to prepare for potential impacts of climate change and provide a phased implementation plan to achieve these goals.
- The CAP will establish a greenhouse gas emissions reduction target of 15% below 2007 levels by 2020, consistent with California Assembly Bill 32, the Global Warming Solutions Act of 2006 (AB32 and the guidance provided in the associated California Air Resources Board Climate Change Scoping Plan approved in December 2008.
- The CAP will also outline a strategy to achieve 1990 GHG levels by 2020 and an 80% reduction from 1990 GHG levels by 2050 in accordance with California State Executive Order S-3-05.

Policy CON-37	The City shall collaborate and coordinate with regional organizations and local jurisdictions within the City to reduce greenhouse gas emissions.
Policy CON-38	The City shall partner with local agencies and organizations to coordinate outreach and education regarding the effects of greenhouse gas emissions and climate change.
Policy CON-39	The City supports the goals of recently adopted Senate Bill 375 and will review this General Plan for consistency with the Sustainable Community Strategy (SCS) to be adopted by the Madera County Transportation Commission. The City will consider amendments to the General Plan as it deems appropriate to implement the SCS.

City of Madera Climate Action Plan

The City of Madera adopted its Climate Action Plan (CAP) in December of 2015. The City of Madera CAP is a long-range plan to reduce GHG emissions from City government (municipal) and community-wide activities within the city and to prepare for the anticipated effects of climate change. The CAP provides a strategy for reducing GHG emissions. It includes objectives and policies from the proposed General Plan that addressed long-term emissions reduction efforts. The timeframe for the CAP extends from the date of adoption through the year 2030. The following community reduction measures from the CAP are applicable to the Project:

- **LG-1: Municipal Energy Efficiency and Conservation:** Reduce non-renewable energy consumption in City buildings and facilities.
 - *General Plan Policies and Actions:*
 - **Policy CON-40:** All public and private development—including homes, commercial, and industrial—should be designed to be energy-efficient.
 - **Policy CON-45:** The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of facilities constructed, owned, managed, or financed by the City. All new building projects (projects intended for human occupancy) involving the use of local public funds should incorporate green building practices. Except as dictated by unique circumstances associated with a given project, the typical standard for green building will be the equivalent of the “LEED Silver Standard.”
- **LG-2: Municipal Renewable Energy:** Increase the amount of municipal energy derived from renewable sources.
 - *General Plan Policies and Actions:*
 - **Action Item CON-40.4:** To the extent practical, integrate appropriate renewable energy and clean generation technologies into existing City facilities, such as solar, wind, biofuel, cogeneration, and fuel cells to power City facilities.
 - **Policy CON-42:** The City will promote and encourage co-generation projects for commercial, industrial, and municipal facilities, provided they meet all applicable air quality standards and provide a net reduction in GHG emissions associated with energy production.
 - **Policy CON-43:** The City will install renewable energy systems at its facilities where feasible, including solar collection systems at municipal properties and waste-to-energy (methane recovery) systems at the wastewater treatment plant.
- **LG-6: Tree Planting on City Property:** Increase the quantity of drought-tolerant, low-maintenance native trees and vegetation on City-owned or -operated property.
 - *General Plan Policies and Actions:*
 - **Policy CON-9:** The City will evaluate existing City-maintained landscaping and will, as feasible, install or replace vegetation with drought-tolerant, low-maintenance native species.

- **Policy CON-10:** The City will evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and will, as feasible, install or replace vegetation with drought tolerant, low-maintenance native species that can also provide shade and reduce heat-island effects.
- **E-2: Energy Efficient New Construction:** Increase the efficient use of energy and conservation of available resources in the design and construction of new buildings.
 - *General Plan Policies and Actions:*
 - **Policy CON-40:** All public and private development—including homes, commercial, and industrial— should be designed to be energy-efficient.
 - **Policy CON-44:** The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of all private buildings and projects, including: water conservation indoors and outdoors; selection of materials based on recyclability, durability and the amount of energy used to create the material; waste reduction, reuse and recycling during construction and throughout the life of the project; other new aspects of green design and construction included in LEED or other certification programs; control nighttime lighting to lower energy use.
 - **Policy CON-46:** The City will identify and remove regulatory or procedural barriers to implementing green building practices within its jurisdiction, such as updating codes, guidelines, and zoning, and will ensure that all plan review and building inspection staff are trained in green building materials, practices, and techniques.

Thresholds of Significance

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.”

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97 and most recently amended December 28, 2019. A significant impact would occur if the project would:

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

- (b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Approach to Analysis

Section 15064.4 of the *State CEQA Guidelines* states that “A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.” In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency then considers the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Neither the City nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, in the absence of any City or SJVAPCD specific guidelines or thresholds, this analysis evaluates the Project for consistency with the Bay Area Air District (BAAD) *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (Justification Report) along with the California Air Resources Board (CARB) 2022 Scoping Plan and the Madera County Transportation Commission (MCTC) Regional Transportation Plan (RTP)/ Sustainable Communities Strategy (SCS).

BAAD Justification Report

In April 2022, the BAAD adopted the Justification Report document, which identifies applicable GHG significance thresholds. These thresholds establish whether a project would be consistent with California’s efforts to meet long-term climate goals of achieving carbon neutrality by 2045. If a project is designed and built to incorporate design elements related to natural gas, energy, VMT, and EVs, then it would contribute its portion of what is necessary to achieve California’s longterm climate goals—its “fair share”—and an agency reviewing the project under CEQA can conclude that the project would not make a cumulatively considerable contribution to global climate change.

The Justification Report provides substantial evidence supporting the use of their thresholds for projects throughout California because the thresholds are applicable to meeting the State’s goal.

In the absence of any City or SJVAPCD specific guidelines or thresholds, this analysis evaluates the Project for consistency with the identified project design elements as the applicable thresholds of significance to establish if the Project is achieving its “fair share” of emission reductions to support long term State goals for GHG emissions and carbon neutrality.

According to the Justification Report, a project would have a less than significant impact related to GHG emissions if it would include the following project design elements:

1. Buildings

- a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
- b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2. Transportation

- a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA:

- 1. Residential projects: 15 percent below the existing VMT per capita
- 2. Office projects: 15 percent below the existing VMT per employee
- 3. Retail projects: no net increase in existing VMT

- b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

These project design elements are utilized in the following analysis as the thresholds of significance to evaluate the project’s potential GHG emissions impact, given the absence of City or SJVAPCD specified thresholds.

CARB 2022 Scoping Plan

The CARB 2022 Scoping Plan is used for project-level CEQA analysis because it provides the mandatory blueprint for California to reach carbon neutrality by 2045, identifying specific,

quantifiable targets and strategies – such as electrification and reduced vehicle miles travelled – necessary to demonstrate a project’s consistency with state climate goals.

MCTC RTP/SCS

Demonstrating consistency with the MCTC RTP/SCS would ensure that state, regional and local emission reduction goals, particularly under SB 375 are being met. The RTP/SCS defines how the region meets GHG emission reduction targets set by CARB and it provides an integrated framework that helps evaluate how projects align with regional growth projections and transportation investments designed to minimize environmental impacts.

Greenhouse Gas Analysis

GHG emissions associated with the Project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term GHG emissions associated with Project-related vehicular trips. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that, for determining a project’s contribution to GHG emissions, lead agencies should calculate or estimate emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the Project area. CalEEMod results were used to quantify GHG emissions generated by full buildout of the Project. This analysis includes the specific development proposed in the TSM portion of the Project along with all future development occurring within the Project area.

Short-Term Greenhouse Gas Emissions/Construction

Construction activities associated with the construction of residential and nonresidential development capacity would cause short-term GHG emissions. Construction activities with the Project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The SJVAPCD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that the emissions associated

with construction of the Project would be approximately 11,613 metric tons of CO₂e. Construction GHG emissions were amortized over the life of the Project (assumed to be 30 years) and added to the operational emissions. When annualized over the life of the Project, amortized construction emissions would be approximately 387.1 MT CO₂e per year.

Long-Term Greenhouse Gas Emissions/Operations

Long-term GHG emissions are typically generated from mobile sources (e.g., vehicle and truck trips), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include Project-generated vehicle trips to and from the Project. Area-source emissions would be associated with activities such as landscaping and maintenance on the Project site. Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the Project. Waste source emissions generated by the Project include energy generated by land filling and other methods of disposal related to transporting and managing Project generated waste. In addition, water source emissions associated with the Project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Following guidance from the SJVAPCD, GHG emissions for operation of the Project were calculated using CalEEMod and the modeling assumptions outlined in the Methodology section of the AQHRAGGE (see Appendix B, pages 40-41). Based on the analysis results, summarized in Table 3.7-1, the Project would result in emissions of approximately 25,916.5 MT CO₂e per year. These estimated emissions are provided for informational purposes, and the significance of the Project is further analyzed below. CalEEMod output sheets are provided in Appendix B.

Table 3.7-1
Project Greenhouse Gas Emissions¹⁴

Emission Type	Operational Emissions (Metric Tons per Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Mobile Sources	19,596	0.7	1.0	19,939
Area Sources	604.3	<0.1	<0.1	605.0
Energy Sources	4,545.7	0.5	<0.1	4,568.6
Water Sources	59.8	3.1	0.1	160.9
Waste Sources	169.1	16.9	0.0	591.5
Amortized Construction Emissions				51.5
Total Operational Emissions				25,916.5

Source: Compiled by LSA (August 2025).

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

N₂O = nitrous oxide

Impacts and Mitigation Measures

Impact 3.7-1: *Would the project generate direct or indirect greenhouse emissions that would result in a significant impact on the environment?*

Less Than Significant Impact with Mitigation Incorporation. As discussed, the SJVAPCD has not established a numeric threshold for GHG emissions. The significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (e.g., a Climate Action Plan). Therefore, consistent with the State CEQA Guidelines, Section 15183.5, if a project is consistent with an adopted qualified Greenhouse Gas Reduction Strategy, it can be presumed that the Project would not have significant GHG emission impacts. However, neither the City nor the SJVAPCD has developed or adopted numeric GHG significance thresholds.

In the absence of any City or SJVAPCD specific guidelines or thresholds, this analysis evaluates the Project for consistency with the BAAD Justification Report, which identifies project design elements as the applicable thresholds of significance. If a project is designed and built to incorporate design elements related to natural gas, energy, VMT, and EVs, then it would contribute its portion of what is necessary to achieve California's long-term climate goals—its “fair share”—and an agency reviewing the project under CEQA can conclude that the Project would not make a cumulatively considerable contribution to global climate change. Per the

¹⁴ Air Quality, Energy and Greenhouse Gas Impact Analysis for Granite Creek Plan Project, Madera County, California. LSA Consulting, September 2025. Page 60. Appendix B.

significance thresholds described above, a *less than significant* GHG impact would occur if the Project were consistent with the identified design standards.

Natural Gas Usage

According to the Justification Report, a less than significant GHG impact would occur if the project does not include natural gas appliances or natural gas plumbing. As discussed in Chapter 3.3, Air Quality, and as required in Mitigation Measure AIR-2, natural gas will not be utilized with Project development. However, as part of its emissions estimates, CalEEMod automatically estimates emissions resulting from direct natural gas consumption along with indirect electricity consumption. Therefore, as worst case scenario, the unmitigated Project was assumed to include natural gas throughout this analysis. Without mitigation, the Project would conflict with this design element and a significant impact would occur. However, with implementation of AIR-2, which requires several emissions reduction features, one of which is a requirement for all electric development, the Project would be consistent with this design element (Criterion Buildings a.).

Energy Usage

Under this design criterion, the Project must not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. Energy use consumed by the Project would be associated with electricity consumption associated with the Project. Energy consumption was estimated for the Project using default energy intensities by land use type in the CalEEMod output, which is included in Appendix B.

The estimated potential increase in electricity demand associated with the operation of the Project is 15,620,033 kWh per year. Total electricity consumption in Madera County in 2024 was 1,687 GWh (~1,687,000,000 kWh). Therefore, operation of the Project would increase the annual electricity consumption in Madera County by approximately 1.2 percent.

As mentioned above, with implementation of AIR-2, the Project would not increase natural gas consumption.

In addition, the Project would be constructed to current Title 24 standards, which would require energy-saving building features. As such, based on this analysis, as required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines, the Project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy and energy efficiency measures into the building design, equipment use, and

transportation. As such, the Project would be consistent with this design element (Criterion Buildings b.).

Vehicle Miles Traveled

As discussed above, development would be considered to have a less than significant GHG emission impact from transportation sources if it would achieve a reduction in project-generated VMT below the regional average. The Project includes the development of single-family and multi-family residential units, town centers, an elementary/middle school, commercial space for employment opportunities, and public facilities, all supported by an integrated open space and trails network. Project-generated VMT was estimated using the MCTC Travel Demand Forecasting Model and analyzed in a Vehicle Miles Traveled Analysis Memorandum (Memo).¹⁵ The Memo concluded that the Project-generated VMT would be below the threshold of significance, defined as 15 percent below the baseline regional VMT, and the impact would be less than significant. Therefore, the Project would be consistent with this project design element (Criterion Transportation a.) and the Project would be consistent with this project design element.

Electric Vehicle Requirements

The final project design element that the Project should include to ensure that it is achieving its “fair share” of GHG emission reductions is compliance with EV requirements in the most recently adopted version of the CALGreen Code Tier 2 measures. The Project, and any future development within the Project area, would be required to implement AIR-2 (as described in Section 3.3 – Air Quality), which requires that the Project shall provide electric vehicle (EV) charging capabilities that meet the requirements of the latest version of the California Green Building Standards Code (CALGreen Code) Tier 2 Voluntary Standards as part of the final project designs. Therefore, with implementation of AIR-2, the Project would be consistent with this design element (Criterion Transportation b.).

With implementation of AIR-2 measures, the Project would be consistent with the project design elements related to natural gas, energy usage, and EV requirements. Therefore, the Project would be consistent with the GHG emission thresholds identified for this Project. As such, with implementation of AIR-2, the Project would not result in the generation of GHG emissions that would have a *significant impact* on the environment.

¹⁵ LSA Associates, Inc. 2025. *Granite Creek Master Plan Project Vehicle Miles Traveled Analysis Memorandum* (LSA Project# 20252395). August.

Mitigation Measures:

AIR- 2 Prior to issuance of building permits, the City of Madera shall review and approve Project design details and specifications to demonstrate implementation of the following emission reduction measures. The applicant shall incorporate the measures, as applicable to the proposed land use(s) indicated in parentheses below, into final Project design. These measures shall be made enforceable as conditions of approval and shall be verified by the City prior to issuance of certificates of occupancy. Implementation of the following measures, where applicable to the proposed land use(s) indicated in parentheses below, are considered to be effective in reducing criteria pollutant emissions generated by the Project:

A. Transportation and Circulation Measures (All Land Uses)

- **Traffic Calming and Vehicle Speed Reduction.** Project roadway designs shall include at least two traffic-calming features per roadway segment, such as narrowed travel lanes (≤ 10 feet for local streets), speed tables or platforms, curb bulb-outs, chicanes, or raised intersections, consistent with City engineering standards.
- **Pedestrian and Bicycle Connectivity.** The Project shall provide continuous pedestrian sidewalks on both sides of all internal streets, separated from travel lanes by landscaping or on-street parking where feasible. Bicycle facilities shall be provided in accordance with City standards or the latest Caltrans Highway Design Manual, as applicable.
- **Safe and Direct Access.** Pedestrian and bicycle access routes from public rights-of-way, transit stops, and parking areas to building entrances shall be physically separated from vehicular travel lanes and shall not be obstructed by walls, berms, excessive slopes, or discontinuous pathways.
- **Parking Lot Pedestrian Circulation.** For land uses that include public parking lot(s), parking areas shall include clearly marked pedestrian pathways connecting parking stalls and transit facilities to building entrances. Pathways shall be a minimum of 6 feet wide, landscaped or

shaded with trees or canopies providing at least 50 percent shade coverage within 15 years of Project approval.

- Carpool, Vanpool, and Rideshare Incentives. For land uses that include public parking lot(s), a minimum of 5 percent of on-site parking spaces shall be designated as preferential parking for carpool, vanpool, or rideshare vehicles and shall be located within the closest parking row to primary building entrances and clearly signed.

B. Building Energy and Electrification Measures (Residential and Non-Residential)

- All-Electric Development Requirement. All new buildings shall be designed and constructed as all-electric, with no natural gas infrastructure (including piping, meters, or combustion appliances).
- If the applicant demonstrates to the City's satisfaction that full electrification is infeasible, the Project shall implement equivalent or greater criteria pollutant and greenhouse gas emission reductions through a combination of the following measures, subject to City approval:
 - Install on-site solar photovoltaic systems sized to offset 100 percent of the projected annual electricity demand attributable to gas-powered end uses;
 - Install battery energy storage systems to support peak-load reduction; and/or
 - Incorporate other City-approved design features that achieve equivalent emission reductions, quantified using accepted modeling methods.
- Energy Efficiency Standards. All buildings shall exceed the Title 24 Building Energy Efficiency Standards by a minimum of 20 percent, as demonstrated through energy compliance documentation submitted with building permit applications.
- Efficient Appliances and Water Heating. All appliances shall be ENERGY STAR–certified, where available, and all water heating

systems shall consist of high-efficiency electric heat pump water heaters.

C. Renewable Energy and Site Design Measures (All Land Uses)

- **On-Site Solar Energy Generation.** The Project shall maximize on-site solar energy generation by installing photovoltaic systems on rooftops and/or carport structures. Solar installations shall utilize all feasible roof area not constrained by shading, structural limitations, or code requirements.
- **Sustainable Site Design.** Buildings shall incorporate energy-efficient design features, including optimal site orientation, light-colored roofing and paving materials with a minimum solar reflectance index (SRI) of 75 for roofs and 50 for pavements, and the strategic placement of deciduous shade trees and windbreak trees to reduce heating and cooling demands.

D. Materials, Coatings, and Construction-Related Measures (All Land Uses)

- **Low-VOC Coatings.** All interior and exterior paints, coatings, and finishes shall contain no more than 10 grams per liter of VOCs, excluding water and exempt compounds.

E. Landscaping and Water Efficiency Measures (All Land Uses)

- **Water-Efficient Landscaping.** Landscaping shall comply with the Model Water Efficient Landscape Ordinance (MWELO) and shall utilize drought-tolerant plant species, high-efficiency irrigation systems, and soil moisture sensors to minimize water use and associated energy demand.

Impact 3.7-2: *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant Impact. An evaluation of the Project's consistency with the CARB's 2022 Scoping Plan, the MCTC RTP/SCS, and the City's CAP is provided below.

CARB 2022 Scoping Plan

The following discussion evaluates the Project according to the goals of the 2022 Scoping Plan, EO B-30-15, AB 1279, SB 32, and AB 197.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016. AB 1279 establishes State policy to achieve net zero GHG emissions no later than 2045 and for Statewide anthropogenic GHG emissions to be reduced to at least 85 percent below 1990 levels by 2045.

In addition, the 2022 Scoping Plan assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As identified above, the Project would be required to comply with the latest Title 24 and CALGreen Code standards regarding energy conservation requirements. The elimination of natural gas in new development, as required in Mitigation Measure AIR-2, would help projects implement their "fair share" of achieving long-term 2045 carbon neutrality consistent with State goals. As such, if a project does not utilize natural gas, a lead agency can conclude that it would be consistent with achieving the 2045 neutrality goal and will not have a cumulative considerable impact on climate change. Further, the Project will be constructed with the latest Title 24 building design and will meet all required energy efficiency measures. Therefore, with implementation of Mitigation Measure AIR-2, the Project would comply with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, buildout associated with the Project would be required to comply with the latest Title 24 and CALGreen Code standards, which include a variety of different measures, including reduction of wastewater and water use.

In addition, the Project would use drip irrigation and install low-flow water fixtures. Therefore, the Project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the Project. As noted previously, implementation of the Project would result in a less than significant VMT impact. The Project would also be designed to support low and zero emission vehicles by including EV charging stations. Therefore, the Project would not conflict with the identified transportation and motor vehicle measures.

MCTC 2022 Regional Transportation Plan/Sustainable Communities Strategy

The MCTC 2022 RTP/SCS reflects transportation planning for Madera County through 2046. The vision, goals, and policies in the 2022 RTP are intended to serve as the foundation for both short and long-term planning and guide implementation activities. The core vision in the 2022 RTP is to create a region of diverse, safe, resilient, and accessible transportation options that improve the quality of life for all residents by fostering sustainability, equity, a vibrant economy, clean air, and healthy communities. The 2022 RTP contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as forecast development that is generally consistent with regional-level general plan data. The actions in the 2022 RTP address all transportation modes (e.g., highways, local streets and roads, mass transportation, rail, bicycle, and aviation facilities and services) and consist of short and long-term activities that address regional transportation needs. While the actions are organized by the five key policy areas, many of them support multiple goals and policies. Some actions are intended to support the SCS and reduce GHG emissions directly, while others are focused on the RTP's broader goals. The 2022 RTP does not require that local General Plans, Specific Plans, or zoning be consistent with the 2022 RTP, but provides incentives for consistency for governments and developers.

The Project would not interfere with the MCTC ability to achieve the region's GHG reductions. Furthermore, the Project would not conflict with the 2022 RTP targets because those targets were established and are applicable on a regional level. The Project would develop single-family and multi-family residential units, town centers, an elementary/middle school, commercial space for employment opportunities, and public facilities, all supported by an integrated open space and trails network. Under State CEQA Guidelines Section 15206, a project has the potential to be regionally significant if it would provide a residential development of more than 500 dwelling units. Thus, the Project would be considered regionally significant.

Build out of the Granite Creek Plan Area is limited to a maximum of 1,542 residential dwelling units and approximately 612,235 square feet over approximately 204 acres. Proposed development beyond these limitations may require additional environmental review. The number of residents at full build out is estimated at 5,119 based on an average household size of 3.32. As shown in Table 4-2, Population Increase by Jurisdiction, of the RTP/SCS, the City of Madera is projected to grow from a population of 69,000 in 2025 to 77,015 in 2035, which is the anticipated opening year assumed for the Project, for a total population increase of 8,015 residents. Therefore, growth projections of the Project would be within the parameters of expected overall growth in the City. As such, the Project land uses would be consistent with the growth assumptions used in the 2022 RTP. Therefore, it is anticipated that implementation of the Project would not interfere with MCTC's ability to implement the regional strategies outlined in the 2022 RTP.

City of Madera Climate Action Plan

As described above, the City of Madera adopted its CAP in December of 2015.¹⁶ The CAP provides a strategy for reducing GHG emissions. It includes objectives and policies from the proposed General Plan that addressed long-term emissions reduction efforts. The timeframe for the CAP extends from the date of adoption through the year 2030. The CAP reduction targets are based on AB 32, Executive Order S-3-05, and Executive Order B-30-15. The State has since adopted updated emission targets for 2030 but no later than 2045 (codified by AB 1279); therefore, additional reductions would be required. However, in order to evaluate the Project consistency with the CAP, the City has developed the CAP Consistency Worksheet (Appendix E of the CAP). The worksheet is designed to help the City determine if a project is consistent with the CAP but does not define which measures would need to be implemented for the consistency determination, as requirements may vary by project type. The Project consistency with the CAP measures is shown in Table 3.7-2 below.

¹⁶ City of Madera. 2015. *City of Madera Climate Action Plan*. September. https://www.madera.gov/media/oejgv0pe/final-madera-cap_september-2015.pdf. Accessed February 2026.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
E-2 Energy Efficient New Construction	Is the project consistent with applicable policies of the Conservation Element of the General Plan?	Yes	Applicable policies of the Conservation Element of the General Plan state that projects should aim to reduce dust during construction/demolition activities to the extent feasible (Policy CON-30) and should increase tree coverage to reduce the heat island effect (Policy CON-31). Additionally, all development should be designed to be energy-efficient (Policy CON-40) and development should include green building practices in all projects (Policy CON-44). The Project is consistent with the applicable policies of the Conservation Element of the General Plan. The Project would be required to comply with SJVAPCD Regulation VIII to reduce fugitive dust (RCM AIR-1); and would include a 9.74-acre open space area and landscaping throughout the plan area, thus increasing tree coverage for the project site. In addition, the Project would comply with the applicable CALGreen standards regarding energy conservation and green building standards. Implementation of MM AIR-1 would further enforce project inclusion of green building practices, such as the installation of EV charging stations and solar panels. Therefore, the Project would be consistent with the applicable general plan policies under the Conservation Element.
	Does the project exceed Title 24 Energy Efficiency Building Standards, meet the State's Green Building Standards voluntary tier levels, or is LEED Greenpoint, or ENERGY STAR rated?	Yes	As required by MM AIR-1, the Project would exceed Title 24 Building Energy Efficiency Standards by 20 percent. Therefore, the Project would be consistent with this action.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
E-3 On-Site Small-Scale Renewable Energy	Does the project include solar PV systems or solar hot water heaters?	Yes	As required by MM AIR-1, the Project would be designed to include solar panels. Therefore, the Project would be consistent with the action.
T-1: Infill and Mixed-Use Development	Is the project consistent with the land use designation(s) shown on the General Plan Land Use Map and with the applicable policies of the Land Use Element of the General Plan?	N/A	The Project would include annexation into the City, a General Plan amendment, and rezoning. Because the project site is not currently within the City limits, the project cannot show consistency with the General Plan Land Use Map. Applicable policies of the Land Use Element of the General Plan state that new residential development should incorporate amenities which establish a sense of identity at the project or neighborhood level, create opportunities for community interaction, and enhance the visual appeal of the area (Policy LU-20) and single-family developments need to provide functional outdoor recreational space (Policy LU-22). The Project would include a variety of land use types, such as residential, open space, and public use, which would create opportunity for community interaction. Additionally, the inclusion of 9.74 acres of open space would serve as function outdoor recreation space. As such, the Project would be generally consistent with the relevant policies from the Land Use Element.
	Is the project consistent with the Madera County Blueprint?	Yes	The CAP notes that the Blueprint planning process is a part of land use and transportation planning coordinated by MCTC. As discussed above, the Project is consistent with MCTC planning efforts outlined in the RTP/SCS and, therefore, it follows that the project is consistent with the Madera County Blueprint.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
	Does the project include mixed-use, higher density (22.5 to 50 units per acre), or infill development?	Yes	The Project includes a variety of land uses, including high density residential and mixed use.
	Is the project located within ¼ mile of transit stops or in existing community centers/downtown?	N/A	The Project would include annexation into the City, a General Plan amendment, and rezoning. Because the project site is not currently within the City limits, the project site is not located near existing transit stops of community centers. Nevertheless, implementation of the transportation and circulation features set forth in MM AIR-1 would ensure that future development supports public transit use.
T-2 Bicycle and Pedestrian Environment	Is the project consistent with applicable policies of the Community Design and Circulation Elements of the General Plan?	Yes	Applicable policies of the Community Design Element and the Circulation Element of the General Plan relate to designing new development to be walkable pedestrian- and bicycle-oriented development. The Project would fulfill the policies of the Madera General Plan Circulation Element and the City's CAP by providing a mix of land uses in close proximity. In addition, implementation of the transportation and circulation features set forth in MM AIR-1 would ensure that future development includes bicycle and pedestrian infrastructure.
	Is the project consistent with the Bicycle Master Plan?	N/A	The Project would include annexation into the City, a General Plan amendment, and rezoning. Because the project site is not currently within the City limits, the project cannot show consistency with the Bicycle Master Plan. Nevertheless, implementation of the transportation and circulation features set forth in MM AIR-1 would ensure that future development includes bicycle infrastructure and connectivity.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
	Does the project meet minimum design criteria for bicycle and pedestrian circulation?	Yes	Specific details regarding individual developments facilitated by the Project are not available at this time. However, implementation of the transportation and circulation features set forth in MM AIR-1 would ensure that future development includes bicycle and pedestrian infrastructure and connectivity.
	Does the project provide adequate and secure bicycle parking?	N/A	Specific details regarding individual developments facilitated by the Project are not available at this time
T-3 Transit Travel	Is the project consistent with applicable policies of the Circulation and Community Development Elements of the General Plan?	Yes	Applicable policies of the Community Design Element and the Circulation Element of the General Plan relate to planning and accommodating for transit travel (Policy CI-28, Policy CI-30, Policy CI-31, Policy CI-41, Policy CI-50, Policy H-5.3, and Policy CD-59). As mentioned above, the Project would also include a mixture of land uses which would generally minimize vehicle trips due to internal trip capture. Additionally, implementation of the transportation and circulation features set forth in MM AIR-1 would ensure that future development includes bicycle and pedestrian infrastructure and connectivity to support multimodal travel.
	Does the project provide safe routes to adjacent transit stops, where applicable?	Yes	Specific details regarding individual developments facilitated by the Project are not available at this time. However, implementation of the transportation and circulation features set forth in MM AIR-1 would ensure that future development includes safe routes to transit stops where applicable.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
	Does the project finance and/or construct bus turnouts and shelters where transit demand warrants such improvements?	N/A	Specific details regarding individual developments facilitated by the Project are not available at this time
	Does the project provide public transit vouchers to its employees?	N/A	Specific details regarding individual developments facilitated by the Project are not available at this time
T-4 Commute Trip Reduction	Is the project consistent with applicable policies of the Community Development Element of the General Plan?	Yes	Applicable policies of the Community Design Element and the Circulation Element of the General Plan aim to provide parking for alternative modes of transportation (Policy CD-59) and encourage the use of ridesharing (Policy CI-37). The Project would provide EV charging and off-street parking consistent with City requirements. Specific details regarding individual developments facilitated by the Project are not available at this time, but it is assumed that bicycle parking would be provided at multi-family, mixed-use, and commercial land uses. In addition, the proposed land use plan would site residences in close proximity to other residential neighborhoods and commercial areas, which would increase the potential for ridesharing.
	Does the project include and/or promote TDM programs?	N/A	The Project would not include a transportation demand program (TDM). As noted previously, implementation of the Project would result in a less-than-significant VMT impact.
T-5 Traffic Flow and Vehicle Idling	Does the project include measures to improve traffic flow?	Yes	As required by MM AIR-1, appropriate traffic calming measures, such as narrower traffic lanes, traffic signs, etc., would be provided to help reduce traffic speeds, promote attentive driving and increase yield to pedestrians.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
T-6 Low Carbon Fuel Vehicles and Infrastructure	Is the project consistent with applicable policies of the Community Development Element of the General Plan?	Yes	Applicable policies of the Community Design Element of the General Plan aim to provide parking for alternative modes of transportation (Policy CD-59). The Project would provide EV charging and off-street parking consistent with City requirements. Specific details regarding individual developments facilitated by the Project are not available at this time, but it is assumed that bicycle parking would be provided at multi-family, mixed-use, and commercial land uses.
	Is the project consistent with the San Joaquin Valley Plug-in Electric Vehicle (PEV) Readiness Plan?	Yes	As required by MM AIR-1, the project would install EV charging capabilities sufficient to meet the requirements of the latest CALGreen Code Tier 2 Voluntary Standards.
	Does the project include alternative fueling stations or EV charging stations?	Yes	As required by MM AIR-1, the project would install EV charging capabilities sufficient to meet the requirements of the latest CALGreen Code Tier 2 Voluntary Standards.
T-7 Construction and Off-Road Equipment	Would construction of the project use alternatively fueled construction vehicles/equipment (i.e., repowered engines, electric drive trains, CARB-approved low carbon fuel, electrically-powered)?	No	The Project would utilize a minimum of Tier 2 or better construction equipment engines as recommended by CARB. As described in the Energy Impacts Section, construction contractors would be encouraged to conserve the use of their supplies to minimize their costs on the project. In addition, energy (i.e., fuel) usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources.
	Would the project include low-maintenance native landscaping or xeriscaping?	Yes	The Project would include 9.74 acres of open space. The project would be required to comply with the California Model Water Efficient Landscape Ordinance which includes ordinances for low maintenance drought tolerant landscape and irrigation requirements.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
W-1 Exceed SB X7-7 Water Conservation Target	Does the project incorporate water efficiency and water conservation measures?	Yes	The project would be required to comply with the applicable CALGreen standards, which include a variety of different measures, including reduction of wastewater and water use. In addition, the Project would also be required to comply with the City's Model Water Efficient Landscape Ordinance.
W-2 Recycled Water	Is the project consistent with applicable policies of the Conservation Element of the General Plan?	Yes	Applicable policies of the Conservation Element of the General Plan support the use of reclaimed water (Policy CI-54, Policy CON-5, and Policy CON-6), implement strategies to ensure long-term sustainability of water supply (Policy CON-2), and encourage the use of gray water systems and other water reuse methods (Policy CON-7). The Project is consistent with these policies and would strive for water efficiency in accordance with the applicable CALGreen standard measures for water efficiency.
	Does the project incorporate recycled/reclaimed water?	Yes	As mentioned above, the Project would be required to comply with the applicable CALGreen standards, which include a variety of different measures, including reduction of wastewater and water use. The Project would also be required to comply with the City's Model Water Efficient Landscape Ordinance. In addition, the Project would include a basin on at least one of the open space lots for reclaimed water.

Table 3.7-2**Project Consistency with the City of Madera Climate Action Plan**

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details
U-1 Trees and Vegetation	Is the project consistent with applicable policies of the Community Design Element of the General Plan?	Yes	Applicable policies of the Community Design Element of the General Plan support the planning of street trees (Policy CD-26, Policy CD-43), encourage landscaping to reduce the urban heat island effect (Policy CON-10, Policy Con-31, Policy CD-4), and establish landscape and façade maintenance programs (Policy CD-7). The proposed would include landscaped areas as well as 9.74 acres of open space, and would therefore be consistent with these policies
	Does the project include the planting of new trees or new acres of vegetated land?	Yes	As mentioned above, the Project would include landscaped areas as well as 9.74 acres of open space. Therefore, the Project would be consistent with this measure.

Source: City of Madera (2015) and LSA (January 2026).

As shown in Table 3.7-2, the Project would generally be consistent with the applicable project actions from the City's CAP Consistency Checklist. The Project would also be supporting and implementing the General Plan objectives and policies. Therefore, the Project would not conflict with or obstruct the implementation of the City's CAP.

Conclusion

The Project would be consistent with applicable State plans and programs designed to reduce GHG emissions, including the CARB's 2022 Scoping Plan, MCTC RTP/SCS, and the City's CAP. Therefore, the Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions.

This impact is considered *less than significant*.

Mitigation Measures:

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. The State of California, through AB 32, has acknowledged that GHG emissions are a statewide impact. Emissions generated by the Project combined with past, present, and reasonably probable future projects could contribute to this impact. The CEQA Guidelines emphasize that effects of GHG emissions are cumulative in nature and should be analyzed in the context of CEQA's existing cumulative impacts analysis. The California Governor's Office of Planning and Research acknowledges that although climate change is cumulative in nature, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.

As mentioned above, neither the City of Madera nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, this analysis evaluated the Project based on the Project design features and concludes that the Project would not result in the emissions of substantial GHG emissions. Additionally, the Project would not conflict with the State's GHG emissions reductions objectives embodied in EO B-30-15, AB 1279, SB 32, or AB 197. Therefore, the Project's incremental contribution to cumulative GHG emissions would be *less than cumulatively considerable*.

3.8 Hazards and Hazardous Materials

This section of the DEIR identifies potential impacts of the Project pertaining to hazards and hazardous materials, proximity to airports/schools, and assessment of wildfire risk. One NOP comment letter was received pertaining to Hazards or Hazardous Materials, from the California Department of Toxic Substances Control (DTSC). DTSC provided recommendations on identifying pesticides and imported soil and fill materials and those recommendations are addressed in Section 3.8-1 of this Chapter.

Hazards include man--made or natural materials or man--made or natural conditions that may pose a threat to human health, life, property, or the environment. Hazardous materials and waste present health hazards for humans and the environment. These health hazards can result during the manufacture, transportation, use, or disposal of such materials if not handled properly. Hazards to humans can also existing from natural or human induce wildfire and air traffic accidents.

Environmental Setting

Project Site

The Project site is generally located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area is bound by Avenue 14-1/2 to the south, Road 23 to the west, the Fresno River to the north, and Road 24 to the east. The Plan Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera.

The site is generally flat and is at an elevation of approximately 238-250 feet above mean sea level.¹ The surrounding area consists of single family and rural residential developments, and vacant or agricultural land. The site is approximately 0.7 miles west of Lincoln Elementary School. Upon approval, the Granite Creek Precise Plan site will include a school site under the Public Facility land use designation. The Madera Municipal Airport is the closest airport to the proposed

¹ Biological Resource Evaluation for the Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting December 2024. Appendix C. Page 17.

Project site, approximately 1.7 miles north. The Project site supported agricultural land that has been used for cultivation since at least 1985.²

Hazardous Materials

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of.

Hazardous materials include a variety of substances such as lubricants, herbicides and pesticides, solvents, gasoline, household cleaning products, refrigerants and radioactive substances. Some are common to industrial and commercial process, while others are commonly used in households. A hazardous waste is simply the spent or used hazardous material that requires disposal. Improper transport, storage, handling, use and disposal of hazardous wastes can have significant impacts on the environment and human health.

Hazardous Sites

The Cortese List is a planning document used by the State, local agencies, and land owners to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) are responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

DTSC maintains the *Envirostor Data Management System*, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation / Investigation Sites. The hazardous waste facilities include:

² Biological Resource Evaluation for Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting. December 2024. Appendix C. Page 26.

Permitted–Operating, Post-Closure Permitted, and Historical Non-Operating. The Project site is not identified in the *Envirostor* database, nor are there listed sites in the vicinity.³

GeoTracker is the SWRCB’s data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. The Project site was not identified within the GeoTracker Database.⁴ The Database did not identify any PUST facilities, or open LUST / SLIC cases in the vicinity of the Project site.

Wildfire Hazards

In California, responsibility for wildfire prevention and suppression is shared by federal, state and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas. The State of California has determined that some non-federal lands in unincorporated areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by CAL FIRE. All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA). While nearly all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather and other relevant factors (Public Resources Code [PRC] 4201-4204 and California Government Code 51175-89). As described above, the primary factors that increase an area’s susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE maps fire hazards based on zones, referred to as Fire Hazard Severity Zones. CAL FIRE maps three SRA zones: 1) Moderate Fire Hazard Severity Zones; 2) High Fire Hazard Severity Zones; and 3) Very High Fire Hazard Severity Zones. Only the Very High Fire Hazard Severity Zones are mapped for the LRA. Each of the zones influence how people construct buildings and protect property to reduce risk associated with wildland fires. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage

³ EnviroStor Database, California Department of Toxic Control Substances.
<https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=madera+ca>. Accessed February 2026.

⁴⁴ Geotracker Database, California Water Board.
<https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Madera+ca>. Accessed February 2026.

and loss of life within these areas. According to LRA mapping, no land within or adjacent to the City of Madera or the Project site is designated as a Very High Fire Hazard Severity Zone.⁵

Airports

The Project site is approximately 1.7 miles south of Madera Municipal Airport.

Schools

The site is approximately 0.7 miles west of Lincoln Elementary School, which is located at 650 Liberty Lane. Lincoln Elementary is part of Madera Unified School District, which serves 20,000 students.⁶ There are no other schools located within 1/4 mile of the Project site.

Regulatory Setting

Federal Regulations

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 (HMTA) as amended, is the major federal transportation-related statute affecting the transportation of hazardous material in commerce. The objective of the HMTA according to the policy stated by Congress is "... to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce." The HMTA empowers the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property."

Regulations apply to "... any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or container which is represented, marked, certified, or sold by such person for use in the transportation in commerce of certain hazardous materials."⁷

Superfund

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as "Superfund", was enacted on December 11, 1980. The purpose of

⁵ California State Geoportal. California Fire Hazard Severity Zone Viewer. <https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247>. Accessed February 2026.

⁶ Lincoln Elementary School, Madera Unified School District. <https://lincoln.maderausd.org/>. Accessed February 2026.

⁷ United States Department of Labor. Occupational Safety and Health Administration. Transporting Hazardous Materials. <https://www.osha.gov/trucking-industry/transporting-hazardous-materials>. Accessed February 2026.

CERCLA was to provide authorities with the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous waste sites that endanger public health and the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified. Additionally, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the National Priorities List, a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action.

Superfund Amendments and Reauthorization Act SARA amended CERCLA on October 17, 1986. This amendment increased the size of the Hazardous Response Trust Fund to \$8.5 billion, expanded EPA's response authority, strengthened enforcement activities at Superfund sites; and broadened the application of the law to include federal facilities. In addition, new provisions were added to the law that dealt with emergency planning and community right to know. SARA also required EPA to revise the Hazard Ranking System to ensure that the system accurately assesses the relative degree of risk to human health and the environment posed by sites and facilities subject to review for listing on the National Priorities List.

Federal Insecticide, Fungicide and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) provides for federal regulation of pesticide distribution, sale, and use. All pesticides distributed or sold in the United States must be registered (licensed) by the federal Environmental Protection Agency (EPA). Before EPA may register a pesticide under FIFRA, the applicant must show, among other things, that using the pesticide according to specifications "will not generally cause unreasonable adverse effects on the environment." 7 U.S.C. Section 136 et seq.

Federal Emergency Management Act (FEMA)

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) provides the EPA with the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focus on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

State of California Regulations

California Environmental Protection Agency (Cal/EPA) Department of Toxic Substance Control (DTSC)

Cal/EPA has regulatory responsibility under Title 22 of the California Code of Regulations (CCR) for administration of the state and federal Superfund programs for the management and cleanup of hazardous materials. The DTSC is responsible for regulating hazardous waste facilities and overseeing the cleanup of hazardous waste sites in California. The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement and Unified Program activities. HWMP maintains the EPA authorization to implement the RCRA program in California, and develops regulations, policies, guidance and technical assistance/training to assure the safe storage, treatment, transportation and disposal of hazardous wastes. The State Regulatory Programs Division of DTSC oversees the technical implementation of the state's Unified Program, which is a consolidation of six environmental programs at the local level, and conducts triennial reviews of Unified Program agencies to ensure that their programs are consistent statewide and conform to standards.

Hazardous Substance Account Act (1984), California Health and Safety Code Section 25300 ET SEQ (HSAA)

This act, known as the California Superfund, has three purposes: 1) to respond to releases of hazardous substances; 2) to compensate for damages caused by such releases; and 3) to pay the state's 10 percent share in CERCLA cleanups. Contaminated sites that fail to score above a certain threshold level in the EPA's ranking system may be placed on the California Superfund list of hazardous wastes requiring cleanup.

California Code of Regulations

Title 3 of the CCR pertains to the application of pesticides and related chemicals. Parties applying regulated substances must continuously evaluate application equipment, the weather, the treated lands and all surrounding properties. Title 3 prohibits any application that would:

- Contaminate persons not involved in the application
- Damage non---target crops or animals or any other public or private property
- Contaminate public or private property or create health hazards on said property

Title 8 of the CCR establishes California Occupational Safety and Health Administration (Cal OSHA) requirements related to public and worker protection. Topics addressed in Title 8 include materials exposure limits, equipment requirements, protective clothing, hazardous materials, and accident prevention. Construction safety and exposure standards for lead and asbestos are set forth in Title 8.

Title 14 of the CCR establishes minimum standards for solid waste handling and disposal.

Title 17 of the CCR establishes regulations relating to the use and disturbance of materials containing naturally occurring asbestos.

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

Title 22 of the CCR sets forth definitions of hazardous waste and special waste. The section also identifies hazardous waste criteria and establishes regulations pertaining to the storage, transport, and disposal of hazardous waste.

Title 26 of the CCR is a medley of State regulations pertaining to hazardous materials and waste that are presented in other regulatory sections. Title 26 mandates specific management criteria related to hazardous materials identification, packaging, and disposal. In addition, Title 26 establishes requirements for hazardous materials transport, containment, treatment, and disposal. Finally, staff training standards are set forth in Title 26.

Title 27 of the CCR sets forth a variety of regulations relating to the construction, operation and maintenance of the State's landfills. The title establishes a landfill classification system and categories of waste. Each class of landfill is constructed to contain specific types of waste (household, inert, special, and hazardous).

California Fire Code

The California Fire Code (CFC) is Part 9 of Title 24, California Code of Regulations, also referred to as the California Building Standards Code. The CFC incorporates the 2024 International Fire Code of the International Code Council with necessary California amendments. The purpose of the CFC is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations.

California Health and Safety Code

Division 11 of the Health and Safety Code establishes regulations related to a variety of explosive substances and devices, including high explosives and fireworks. Section 12000 et seq. establishes regulations related to explosives and explosive devices, including permitting, handling, storage, and transport (in quantities greater than 1,000 pounds).

Division 12 establishes requirements for buildings used by the public, including essential services buildings, earthquake hazard mitigation technologies, school buildings, and postsecondary buildings.

Division 20 of the Health and Safety Code establishes DTSC authority and sets forth hazardous waste and underground storage tank regulations. In addition, the division creates a State superfund framework that mirrors the Federal program.

Division 26 of the Health and Safety Code establishes California Air Resources Board (CARB) authority. The division designates CARB as the air pollution control agency per Federal regulations and charges the Board with meeting Clean Air Act requirements.

California Health and Safety Code and UBC Section 13000 et seq.

State fire regulations are set forth in §13000 et seq. of the California Health and Safety Code, which is divided into “Fires and Fire Protection” and “Buildings Used by the Public.” The regulations provide for the enforcement of the UBC and mandate the abatement of fire hazards. The code establishes broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

California Vehicle Code §31600 (Transportation of Explosives)

Establishes requirements related to the transportation of explosives in quantities greater than

1,000 pounds, including licensing and route identification.

Cal/EPA Cortese List

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). The Cortese List identifies the following:

- Hazardous Waste and Substance Sites
- Cease and desist order Sites
- Waste Constituents above Hazardous Waste Levels outside the Waste Management Unit Sites
- Leaking Underground Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- WDR Sites
- Permitted Underground Storage Tank (UST) Facilities Sites
- Monitoring Wells Sites
- DTSC Cleanup Sites

Local Regulations

City of Madera General Plan

The Health and Safety Element of City of Madera's General Plan's goal is to identify the natural and man-made public health and safety hazards that exist within the City, and to establish preventative and responsive policies and programs to mitigate their potential impacts. This Element addresses geologic hazards, flood hazards, hazardous materials, wildfire hazards, and safety services. The following list of goals and policies from the Health and Safety Element are applicable to the Project.

HS-10: The City will regulate the storage of hazardous and waste materials consistent with state and federal law. The City shall not permit above ground tanks without considering the potential hazards that would result

from the release of stored liquids caused by possible rupture or collapse, and may request applicants to have an emergency response plan.

- HS-15:** The City will coordinate with the California Highway Patrol, the Madera County Department of Environmental Health Services, the Madera County Sheriff's Department, and all other appropriate local, state and federal agencies in hazardous materials route planning, notifications and incident response, to ensure appropriate first response to hazardous material incidents.
- HS-16:** The City will work with other responsible agencies on efforts to clean up or contain identified soil or water contamination in the city limits. This policy will extend to the former Oberti salt ponds and other related facilities at such time as they are annexed to the city.
- HS-17:** The City shall seek to avoid and minimize exposure of sensitive land uses to potentially hazardous emissions along truck routes and rail lines which may be used by surface vehicles and rail cars carrying hazardous or toxic substances. These truck routes include Avenue 12 and Highways 99 and 145. Rail corridors include the two primary lines running north-south through Madera, as well as the spur line which serves the industrial area in the southwest portion of the City.
- HS-18:** The City shall require written confirmation from applicable local, regional, state, and federal agencies that known contaminated sites have been deemed remediated to a level appropriate for land uses proposed prior to the City approving site development or provide an approved remediation plan that demonstrates how contamination will be remediated prior to site occupancy. This documentation shall specify the extent of development allowed on the remediated site as well as any special conditions and/or restrictions on future land uses.
- HS-31:** The City shall consider the compatibility criteria in the Airport Land Use Compatibility Plan for the Madera Airport and the Madera Municipal Airport Master Plan in the review of potential land uses or projects.
- HS-34:** The City shall continue to maintain and update emergency service plans, including the Madera City Fire Department Emergency Operations Plan and the Hazardous Material Spills Emergency Response Plan.

***Action Item HS-8.1:** Adopt an All Hazards (natural and manmade) Disaster Plan. The Plan should be sufficiently broad in scope to include the designation of evacuation routes, staging areas, shelters, PODs (points of distribution), and protocols for coordinating all local government and volunteer agencies in assisting local residents in the event of a major earthquake, large-scale fire or explosion, or hazardous chemical spill or release of hazardous airborne gas.*

Madera County Environmental Health Division

In Madera, Environmental Health Division has been designated by the California Environmental Protection Agency (CalEPA) as the Certified Unified Program Agency (CUPA) for Madera County⁸. As the CUPA, the Environmental Health Division is responsible for the implementation of six statewide environmental programs. These programs consist of:

1. Aboveground Petroleum Storage Act (APSA) Program
2. California Accidental Release Prevention (CalARP) Program
3. Hazardous Material Release Response Plan (Business Plans)
4. Hazardous Material Management Plan and Hazardous Material Inventory Statement (HMMP/HMIS)
5. Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
6. Underground Storage Tanks (UST) Program

The Environmental Health Division works to ensure that all businesses in Madera County handle, store and dispose of hazardous materials and hazardous wastes in compliance with applicable laws and regulations in order to protect the health and environment of the citizens of Madera County. CUPA programs are administered throughout the County and its incorporated Cities. All businesses regulated by the CUPA require a permit.

The Environmental Health Division also works in cooperation with the Public Health Department's Childhood Lead Poisoning Prevention Program, manages the Drinking Water Program which seeks to assure that public and private water supplies are suitable for domestic uses, and runs the Food Safety and Consumer Protection Program to ensure compliance with applicable laws and regulations to protect the health, safety, and wellbeing of the citizens of

⁸ Madera County, Environmental Health Division. <https://www.maderacounty.com/government/community-economic-development-department/divisions/environmental-health-division>. Accessed February 2026.

Madera County. The Liquid Waste Program is designed to protect the health of the public and environment from the improper disposal of sewage systems, the Medical Waste Program protects the health of the public, health care facility personnel, and landfill personnel from exposure to medical wastes containing potentially communicable pathogenic organisms, the Recreational Health Program assures that all public recreational waters, public swimming pools, and spas are free of safety hazards, disease and life-threatening occurrences and the Solid Waste Program protects the health, safety and well-being of the public and to preserve and improve the quality of the environment by assuring proper storage and disposal of solid waste.

Madera County 2026 Local Hazard Mitigation Plan, Update

A hazard mitigation plan is a formal document that outlays the plans to reduce or eliminate the long-term risk to human life and property from natural or man-made hazards. To address Hazard Mitigation in Madera County, Madera County is partnering with the incorporated communities of Chowchilla and Madera to update their 2018 Local Hazard Mitigation Plan (LHMP). Flood, drought, wildfire, and severe weather are just a few of the natural hazards of concern to Madera County. While natural hazards such as these cannot be prevented, an LHMP forms the foundation for a community's long-term strategy to reduce disaster losses by breaking the repeated cycle of disaster damage and reconstruction. Communities with a FEMA- approved LHMP are eligible for FEMA pre- and post-disaster grant funding and are better positioned to respond and recover when disasters occur.

The LHMP development process creates a framework for risk-based decision making to reduce damages to lives, property, the environment, and the economy from future disasters. The 2026 LHMP includes an updated list of hazards, assesses the likely impacts of these hazards to the people and assets of the Madera County planning area, establishes updated goals, and prioritizes mitigation actions and projects to reduce the impacts of future disasters on people and property, critical facilities and infrastructure, and the environment, as well as to local economies. The LHMP Update is scheduled to be finalized and submitted to Cal OES and FEMA in March 2026.

Standardized Emergency Management System (SEMS)

The standardized emergency management system (SEMS) is a structure for coordination between the government and local emergency response organizations. It provides and facilitates the flow of emergency information and resources within and between the organizational levels of field response, local government, operational areas, regions and state management. SEMS facilitates priority setting, integrated coordination, effective flow of resources and information between all stakeholders. SEMS incorporates the use of the Incident Command System (ICS), Master

Mutual Aid Agreement (MMAA), Operational Area (OA) concept and multi-agency and interagency coordination. State agencies and local government units are to use SEMS in order to become eligible for reimbursement costs led by the state's disaster assistance program.

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air District (SJVAPCD) is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality-management strategies. SJVAPCD's ten core values include: protection of public health; active and effective air pollution control efforts with minimal disruption to the Valley's economic prosperity; outstanding customer service; ingenuity and innovation; accountability to the public; open and transparent public process; recognition of the uniqueness of the Valley; continuous improvement; effective and efficient use of public funds; and respect for the opinions and interests of all Valley residents.⁹ To achieve these core values the SJVAPCD has adopted air quality plans pursuant to the California CAA and a comprehensive list of rules to limit air quality impacts. The air plans currently in effect in the SJVAB and specific rules that apply to the Project are listed and described further below.

The SJVAPCD is responsible for controlling emissions primarily from stationary sources. The SJVAPCD, in coordination with the eight countywide transportation agencies, is also responsible for developing, updating, and implementing air quality attainment plans for the SJVAB. The SJVAPCD also regulates asbestos demolition and other hazardous materials handling.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 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.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

⁹ San Joaquin Valley Air Pollution Control District, About the District. <https://www.valleyair.org/about>. Accessed February 2026.

- 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.
- For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Impacts and Mitigation Measures

Impact 3.8-1: *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials into the environment?*

Less Than Significant Impact With Mitigation. This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Construction

Build out of the Granite Creek Plan Area is limited to a maximum of 1,542 residential dwelling units and approximately 612,235 square feet over approximately 204 acres. Proposed development beyond these limitations may require additional environmental review. The number of residents at full build out is estimated at 5,119 based on an average household size of 3.32. Nearly 60% of the Project area is planned for residential uses, followed by 40% planned for employment uses including commercial and mixed use, and the remaining for public institutional (K-8 School Site), open space, and roadways. Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, State, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with Mitigation Measure GEO-1 (refer to Section 3.7 *Geology and Soils*), which ensures the Project

adhere to the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the Project site. Therefore, after mitigation, no significant impacts would occur during construction activities.

The site was previously active with agricultural production and the potential for agricultural chemicals (pesticides, herbicides, etc.) to have been applied is possible. Residual concentrations of agricultural chemicals tend to be relatively uniform, low in concentration, and confined to the upper two feet of soil (typical depth of agricultural disturbance) over areas of routine application. Soil sampling, as detailed in Mitigation Measure HAZ-1, would allow the City to identify the amounts of Pesticides and Organochlorine Pesticides (OCPs) historically used on the property and remediate as necessary.

Operation

The operational phase of the Project would occur after construction is completed and residents and employees move in to occupy the structures on a day-to-day basis. As part of the Project, the General Plan Amendment would convert the existing land use to residential, mixed use, neighborhood commercial, open space, and public uses. None of these land uses routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential and commercial hazardous materials such as cleaners, paint, petroleum products, etc. The Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur.

Handling and use of hazardous materials and the disposal of the resulting hazardous wastes would be required to follow the applicable laws and regulations, as described in the Regulatory Setting section herein.

Hazardous materials would typically be stored in their original containers prior to use. As required, the hazardous materials would be stored in each building, in locations according to compatibility and in storage enclosures (i.e., flammable material storage cabinets and biological safety cabinets) or in areas or rooms specially designed, protected, and contained for such storage, in accordance with applicable regulations. Hazardous materials would be handled and used in accordance with applicable regulations by personnel that have been trained in the handling and use of the material and that have received proper hazard-communication training. Hazardous materials reporting (i.e., California Hazardous Materials Business Planning, California

Proposition 65 notification, and Emergency Planning and Community-Right-to-Know Act reporting) would be completed as required.

Compliance with all federal, State and local regulations, and the City of Madera General Plan Implementing Policies related to hazardous wastes in the Health and Safety Element would ensure that the Project would not cause an adverse effect on the environment with respect to the use, storage, or disposal of general household and commercial hazardous substances generated from future development or uses. In addition, Mitigation Measure **GEO – 1** (requirement for SWPPP and erosion BMPs) will ensure impacts remain less than significant. Mitigation Measure **HAZ-1** is included to reduce potential impacts resulting from the accidental release of stored pesticides in the soil.

Therefore, the Project will not create a significant hazard to the public or the environment and any impacts would be *less than significant* after mitigation.

Mitigation Measures:

GEO – 1 See Section 3.6

HAZ-1 Soil sampling, per California Department of Toxic Substances Control (DTSC) *Interim Guidance for Sampling Agricultural properties (August 7, 2008)*¹⁰ shall be conducted prior to the issuance of grading permits to identify the amounts of OCPs in the soil. If present, OCPs requiring further analysis, per DTSC consultation, are dichloro-diphenyl-trichloroethane, toxaphene, and dieldrin. Should these OCPs be present, soil remediation shall be conducted until levels are reduced per DTSC guidelines prior to issuance of grading permits. Additionally, if any level of arsenic is present, further analysis and sampling shall meet Human Health Risk Assessment NOTE NUMBER 3, DTSC-SLs approved thresholds.¹¹ If arsenic levels do not meet the approved thresholds, remedial action shall take place to reduce levels below thresholds prior to issuance of grading permits.

¹⁰ California Department of Toxic Substances Control. Interim Guidance for Sampling Agricultural Properties (Third Revision). August 7, 2008. <https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Ag-Guidance-Rev-3-August-7-2008-2.pdf>. Accessed February 2026.

¹¹ California Department of Toxic Substances Control. Human and Ecological Risk Office. June 2020, revised May 2022. <https://dtsc.ca.gov/ecological-risk-assessment-hero/>. Accessed February 2026.

Impact 3.8-2: *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 with Mitigation. This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the Project site. Therefore, no significant impacts would occur during construction activities.

As mentioned previously, because the site was previously active with agricultural production, the potential for agricultural chemicals (pesticides, herbicides, etc.) to have been applied is possible. Residual concentrations of agricultural chemicals tend to be relatively uniform, low in concentration, and confined to the upper two feet of soil (typical depth of agricultural disturbance) over areas of routine application. Even low, uniform concentrations may exceed regulatory guidelines for certain / sensitive land uses. Soil sampling, as detailed in Mitigation Measure HAZ-1, would allow the City to identify the amounts of Pesticides and Organochlorine Pesticides (OCPs) historically used on the property.

It is anticipated that the operational aspects of the Project would not result in large-quantity use of hazardous materials. The General Plan Amendment requested on behalf of the Project would convert the existing land use to residential, mixed use, neighborhood commercial, open space, and public uses. These land uses do not routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Small quantities of hazardous materials would be used onsite, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (such as many cleaners), disinfectants, and fertilizers. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity of the materials. As such, these materials are not expected to expose human health or the environment to undue risks associated with their use.

Any accumulated hazardous construction or operational wastes will be collected and transported away from the site in compliance with all federal, state and local regulations. The initial 60 residences proposed by the TSM are not a typical source of hazardous materials, nor are the structures associated with future build-out phases; thus it wouldn't create a significant hazard to the public involving release of hazardous materials. Mitigation Measure **HAZ-1** is included to reduce potential impacts resulting from the accidental release of stored pesticides in the soil. Therefore, the Project will not create a significant hazard to the public or the environment and any impacts would be *less than significant with mitigation incorporated*.

Mitigation Measures:

See **HAZ-1** above.

Impact 3.8-3: *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. The site is approximately 0.7 miles west of Lincoln Elementary School. There are no other schools within ¼ mile, however a new K-8 school is planned for future development within the Granite Creek Precise Plan.

As noted in Chapter 3.3 *Air Quality*, Project construction would involve the use of diesel-fueled vehicles and equipment that emit diesel particulate matter (DPM), which is considered a toxic air contaminant (TAC). The SJVAPCD's 2015 GAMAQI does not currently recommend analysis of TAC emissions from Project construction activities, but instead focuses on projects with operational emissions that would expose sensitive receptors over a typical lifetime of 70 years.

As identified in Chapter 3.3 *Air Quality*, the Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant, and the Project is not a significant source of TAC emissions during construction or operation. Therefore, the Project would not result in significant impacts to sensitive receptors such as schools.

Based on the Project description of a residential, mixed use, neighborhood commercial, open space, and public use development, it is not reasonably foreseeable that the Project will cause a significant impact by emitting hazardous waste or bringing hazardous materials within one-quarter mile of an existing or proposed school. Residential and neighborhood commercial developments typically do not generate, store, or dispose of significant quantities of hazardous materials. Such uses also do not normally involve dangerous activities that could expose persons onsite or in the surrounding areas to large quantities of hazardous materials. See the responses to

a) and b) above regarding hazardous material handling. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

Impact 3.8-4: *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. As previously noted, DTSC maintains the *Envirostor Data Management System*, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation / Investigation Sites. The hazardous waste facilities include: Permitted–Operating, Post-Closure Permitted, and Historical Non-Operating. The Project site is not identified in the *Envirostor* database, nor are there listed sites in the vicinity.¹²

GeoTracker is the SWRCB’s data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. The Project site was not identified within the GeoTracker Database.¹³ The Database did not identify any PUST facilities, or open LUST / SLIC cases in the vicinity of the Project site.

There are no hazardous materials sites that impact schools within ¼ mile of the Project site and the Project would not create a significant hazard to the public or the environment. Therefore, there is *a less than significant impact*.

Mitigation Measures: None are required.

¹² EnviroStor Database, California Department of Toxic Control Substances.
<https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=madera+ca>. Accessed February 2026.

¹³ Geotracker Database, California Water Board.
<https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Madera+ca>. Accessed February 2026.

Impact 3.8-5: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

Less Than Significant Impact. The Project site is approximately 1.7 miles south of Madera Municipal Airport. The Project is outside any noise contour, however a small portion of the upper right-hand corner of the Project site is within Safety Zone 6 (Traffic Pattern Zone).¹⁴ The land uses being proposed by the Project are considered compatible with this Safety Zone. There are no private airstrips in the Project vicinity and as such, there is a *less than significant impact*.

Mitigation Measures: None are required.

Impact 3.8-6: *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. The California Emergency Services Act (Government Code Section 8550-8668) provides a framework for local jurisdictions to prepare and maintain an Emergency Plan for natural, manmade, or war-caused emergencies that result in conditions of disaster or in extreme peril to life. The Madera County 2026 Local Hazard Mitigation Plan includes planning and response scenarios for wildfires, floods, earthquakes, drought, dam failure, and other severe weather events seismic hazards, and other extreme weather conditions. It is meant to work in conjunction with the State Emergency Plan.

The Project involves the implementation of the Granite Creek Precise Plan, a mixed-use urban development. Construction activities will be temporary in nature and will not cause any road closures that could interfere with any adopted emergency response or evacuation plan. The construction contractor will be required to work with the City and County (public works, police/fire, etc.) if and when roadway diversions are required to ensure that adequate access is maintained for residents and emergency vehicles. The City of Madera has reviewed the Project layout and street configuration and has determined that the Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities and

¹⁴ Madera Countywide Airport Land Use Compatibility Plan, adopted September 9, 2015. Exhibit 5D, Factors Map: Noise and Safety. <https://www.maderacounty.com/home/showpublisheddocument/2882/636480659963700000>. Accessed February 2026.

as such, the Project would not interfere with the City's adopted emergency response plan. Any impacts are *less than significant*.

Mitigation Measures: None are required.

Impact 3.8-7: *Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?*

Less Than Significant Impact. Wildfire hazard data for the City of Madera is provided by the California Department of Forestry and Fire Protection. According to LRA mapping, no land within or adjacent to the City of Madera or the Project site is designated as a Very High Fire Hazard Severity Zone.¹⁵ According to the City of Madera General Plan Health and Safety Element, the level of fire protection in Madera is currently (2008) rated "4" by the Insurance Services Organization, which rates cities and counties on their fire protection services. (The ISO rating is on a scale of 1 to 10, with 1 being best.)¹⁶

There are no other factors of the Project or the surrounding area that would exacerbate wildfire or the uncontrolled spread of a wildfire. For these reasons, the impact is considered *less than significant*.

Mitigation Measures: None are required.

Cumulative Impacts

Less Than Cumulatively Considerable with Mitigation. The scope for considering cumulative impacts to hazards and hazardous materials is generally site-specific rather than cumulative in nature because each project site has different hazardous considerations that would be subject to review. Project construction may involve the transportation, use, and/or disposal of hazardous materials, which may involve the use of equipment that contains hazardous materials (e.g., solvents and fuels, diesel-fueled equipment), or the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated.

¹⁵ California State Geoportal. California Fire Hazard Severity Zone Viewer.
<https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247>. Accessed February 2026.

¹⁶ City of Madera General Plan, October 7, 2009. Health and Safety Element, page 6-16.

With respect to impacts related to the creation of a hazard through upset or accident conditions involving the release of a hazardous material, the following could occur during Project construction and operation: site grading that would generate dust, inadvertently damage the existing abandoned wells, and unknown wells could be discovered. However, conformance with existing State and City regulations, as well as project safety design features, and implementation of mitigation measures GEO-1 and HAZ-1, identified herein, would render this impact less than significant. This impact does not have the potential to contribute to cumulative hazards associated with other projects. The impacts would be localized, occurring only in the immediate vicinity of the project sites, and the implementation of appropriate safety measures during construction of the Project would reduce the impact to a level that would not contribute to cumulative effects.

Because the project is not located within ¼ mile of an existing school, it will not contribute to cumulative effects resulting from hazardous emissions or the handling of hazardous materials, substances, or waste. The project is not located on a listed hazardous materials site and accordingly would not contribute to cumulative impacts resulting from the creation of a significant hazard to the public due to its location.

Because of the Project's location in an area with adequate emergency response times and the absence of project features that would physically impair emergency response or evacuation, the Project would not contribute to cumulative impacts on an adopted emergency response plan or evacuation plan. Similarly, the Project would not contribute to cumulative wildland fire-related impacts due to its location in an area with low wildland fire risk. Considering the protection granted by local, State and federal agencies and their requirements for the use of hazardous materials in the region, as discussed above, with implementation of GEO-1 and HAZ-1, the overall cumulative impact would be less than significant. As such, the Project's incremental contribution to cumulative hazards and human health impacts would be *less than cumulatively considerable with mitigation*.

3.9 Hydrology and Water Quality

This section of the DEIR identifies potential impacts of the Project pertaining to hydrology, water supply and water quality. To assist in evaluation of this environmental impact, an SB 610 Water Supply Assessment (Appendix E) was prepared per the requirement of Water Code section 10910 (SB 610) and CEQA Guidelines section 15155. No NOP comment letters were received pertaining to this topic.

Environmental Setting

Project Site

The Granite Creek Precise Plan Area (Plan Area) is generally located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area consists of two (2) properties, totaling approximately 204 acres, that are generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Plan Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The two (2) parcels include Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026.

The Project site is currently developed with agriculture, specifically grape vines and almond trees. The Project area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. The south side of the Project area includes a combination of residential uses and agricultural uses.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service, the Project the site is underlain by Hanford fine sandy loam, 0 to 1 percent slopes (35.2%); Pachappa fine sandy loam, 0 to 1 percent slopes (29.3%); Grangeville fine sandy loam, slightly saline-alkali, 0 to 1 percent slopes (10.3%); Delhi sand, 3 to 8 percent slopes (8.1%); Tujunga loamy sand, 0 to 3 percent slopes (4.7%); Hanford sandy loam, moderately deep over sand, 0 to 3 percent slopes (3.7%); Hanford sandy loam, 0 to 3 percent slopes (2.5%); Delhi sand, 0 to 3 percent slopes (2.4%); Traver loam, slightly saline-alkali, 0 to 1 percent slopes (1.4%); Grangeville fine sandy loam, 0 to 1 percent slopes (1.5%); Traver loam, moderately saline-sodic, 0 to 1 percent slopes (0.6%); and Riverwash (0.2%).¹ The Project area is essentially flat, lying at

¹ Biological Resource Evaluation for Madera Granite Hills Precise Plan. Colibri Ecological Consulting. December 2024. See Appendix C.

an elevation of approximately 250 feet above sea level. Madera County is located on the Central Valley floor, in the San Joaquin Valley.

The Project site is bordered by a Madera Irrigation District canal and the Fresno River to the north. The canal is listed in the National Wetlands Inventory as riverine with a classification of R4SBCx, which means unknown intermittent, streambed, seasonally flooded, and excavated. The canal contained discontinuous, standing water during the 17 December 2024 reconnaissance survey. As the canal evidently lacks a continuous surface connection to a water of the United States, it is not likely regulated by the USACE. However, as it contained surface water and would be classified as a stream, it is likely under the regulatory jurisdiction of the SWRCB and the CDFW, respectively.

The Project area is outside of any Special Flood Hazard Areas or other Areas of Flood Hazard, as designated by Flood Insurance Rate Maps 06039C1150E and 06039C1155E, effective 9/26/2008. The riverine area outside the Project area to the north is designated as a Special Flood Hazard Area Without a Base Flood Elevation (BFE), or “Zone A”.

Water Agencies and Providers

The City of Madera is identified as the public water supplier for the City.² The City of Madera adopted its 2020 UWMP Update in September 2022, which includes the City’s future water demands for future developments within the existing City limits, as well as future developments within future service areas currently outside the existing City limits. Currently, the Project is not within the City limits and only half of the area is within the City’s SOI. Therefore, the Project is not included in the 2020 UWMP Update and requires an additional demand. Thus, the an SB 610 Water Supply Assessment was prepared for the Project. Upon annexation, the site will be added to the City of Madera water service area.

The City created their own GSA, known as the City of Madera Groundwater Sustainability Agency (CMGSA). The CMGSA works collaboratively with the other three GSAs in Madera County to implement projects that are aimed at obtaining sustainable groundwater conditions by 2040. They have adopted the Madera Subbasin Joint Groundwater Sustainability Plan (MJGSP) that was updated in 2023 to achieve compliance with the Sustainable Groundwater Management Act of 2014 (SGMA). The City has two projects listed in their GSP:

² Water Supply Assessment for Granite Creek Development, City of Madera. Prepared by Akel Engineering Group, Inc., March 2025. Appendix E.

- Berry Basin (Implemented in 2018): Objective is to increase recharge of the Berry Basin in conjunction with MID.
- Meters and Volumetric Pricing (Implemented in 2015): Objective is to install water meters and implement volumetric billing for single-family homes to reduce evaporation and groundwater pumping.

Local Groundwater Basin

Groundwater is the only source of the City's potable water supply. The groundwater basin underlying the City is the Madera Subbasin, (numerically referenced as 5.022-06 and typically included in parenthesis after the basin name) within the San Joaquin Valley Basin (5.022). Although the Madera Subbasin is not adjudicated, the Department of Water Resources (DWR) has identified the Madera Subbasin as a critically over-drafted basin and is classified as high priority, based on the 2019 SGMA-BP.

Historically, groundwater pumping has decreased over time to ensure that the water demand usage remains below their 2020 target. Based on the City's 2020 UWMP Update, the City's confirmed 2020 target was 196 GPCD, but their actual 2020 GPCD was 119 GPCD. The UWMP Update documents 9,203 AF of groundwater pumped in 2016, and only 8,754 AF pumped by 2020. This is largely due to mitigation efforts. According to the 2020 UWMP Update, the City maintains a conservative expectation where groundwater pumping will increase from 14,870 afy to 17,278 afy based on the 2020 water use target over the next twenty years.

The supply total is assumed to match the demand total since groundwater pumping will operate to meet demands per 2020 UWMP Update. Therefore, the City will not meet the water deficit in a normal year.

Regulatory Setting

Federal Agencies and Regulations

Clean Water Act (CWA) and Associated Programs

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant

Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

Construction activities that are subject to this general permit include clearing, grading, stockpiling, and excavation that result in soil disturbances to at least one acre of the total land area. Construction activities that disturb less than one acre are still subject to this general permit if the activities are part of a large common plan of development or if significant water quality impairment would result. In California, the Construction General Permit, revised in September 2009, is implemented by the SWRCB.

Section 401

CWA Section 401 requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the United States. In California, USEPA has delegated to SWRCB and the RWQCBs the authority to issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and that region's water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that might result in the discharge to waters of the United States must also obtain a Section 401 water quality certification to ensure that any such discharge would comply with the applicable provisions of the CWA.

Section 404

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the afore-mentioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of USACE under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of the CWA.

Federal Emergency Management Agency (FEMA)

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

State of California Regulations

Department of Water Resources (DWR)

DWR's major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources; planning, designing, constructing, operating, and maintaining the State Water Resources Development System; regulating dams; providing flood protection; assisting in emergency management to safeguard life and property; educating the public; and serving local water needs by providing technical assistance. In addition, DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water facilities voluntary water transfers; and, when needed, operates a State drought water bank.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate activities which may adversely affect the quality of waters of the State to attain the highest water quality which is reasonable, considering a full range of demands and values. The act authorizes the SWRCB to establish water quality principles and guidelines for long-range resource planning including groundwater and surface water management programs and control and use of recycled water. Much of the implementation of the SWRCB's responsibilities is delegated to nine Regional Water Quality Control Boards (RWQCBs). The Project site is located within the jurisdiction of the Central Valley RWQCB.

California Water Code

The Federal CWA establishes certain guidelines for the states to follow in developing programs for the control of surface water pollution and for planning the development and use of water resources. Under certain circumstances, the CWA allows the federal Environmental Protection Agency (EPA) to withdraw the primary responsibility for these programs from states with inadequate implementation mechanisms.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants

the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The regional plans must conform with the policies set forth in the Porter-Cologne Act and established by the State water policy adopted by the SWRCB. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

- (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:
 - (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
 - (2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.
 - (3) A person operating, or proposing to construct, an injection well.
- (b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.
- (c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Water Code section 10910 (SB 610)

Water Code section 10910 (SB 610) requires that a lead agency obtain a water supply assessment from an applicable public water system for certain projects subject to the California Environmental Quality Act, which are defined as (a) a residential development of more than 500 dwelling units; (b) a shopping center or business employing more than 1,000 persons or having more than 500,000 square feet of floor space; (c) a commercial office building employing more than 1,000 persons or having more than 250,000 square feet; (d) a hotel or motel with more than 500 rooms; (e) an industrial or manufacturing establishment housing more than 1,000 persons or having more than 650,000 square feet or 40 acres; (f) a mixed use project containing any of the foregoing; or (g) any other project that would have a water demand at least equal to a 500 dwelling unit project. Refer to Impact Section 3.9-2 herein for the discussion pertaining to the Water Supply Assessment that was prepared for the Project.

Regional Water Quality Board

The Central Valley RWQCB administers the NPDES storm water-permitting program in the Central Valley region, including Madera. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan must include specifications for Best Management Practices (BMPs) that will be implemented during proposed construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the SWRCB and the Central Valley RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP describes measures to prevent or control runoff degradation after construction is complete, and identifies a plan to inspect and maintain these facilities or project elements.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under the jurisdiction of the appropriate Regional Water Quality and Control Board (RWQCB). Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as

actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under CWA Section 401.

Sustainable Groundwater Management Act

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA) (Water Code §10720 et seq.). SGMA requires that groundwater basins designated by the state Department of Water Resources (DWR) as high priority and/or critically over-drafted must be managed under a Groundwater Sustainability Plan (GSP) that avoids “undesirable results” as defined in the Act within 20 years from January 31, 2020. The GSP must be developed by a Groundwater Sustainability Agency (GSA) approved by the DWR. The City of Madera is part of the City of Madera Groundwater Sustainability Agency (CMGSA).

Local Regulations

City of Madera General Plan

The following lists policies and implementing actions from the City of Madera General Plan pertaining to hydrology and water quality that are applicable to the Project.

Guiding Policies

Policy CON-3 The City supports natural groundwater recharge and new groundwater recharge opportunities through means such as:

- Developing a comprehensive groundwater recharge program to be applied in conjunction with new development.
- Increasing the area on developed sites into which rainwater can percolate.
- Providing areas where rainwater and other water can collect and percolate into the ground.
- Providing for groundwater recharge in storm drainage facilities.
- The use of reclaimed water to recharge the groundwater table.

Policy CON-4 The City will coordinate water resource management planning with other conservation planning efforts, such as those related to open space, park land, and agricultural preservation.

Policy CON-5 To reduce the need for groundwater, the City encourages water conservation and the use of reclaimed water.

Policy CON-6 Where feasible, the installation of pipelines in new developments to carry existing or future supplies of reclaimed water for irrigation and other uses shall be required.

Policy CON-7 The City encourages the use of gray water systems, and other water re-use methods in new development and renovation projects as consistent with state and local water quality regulations.

Policy CON-8 The City encourages Low Impact Development practices in all residential, commercial, office, and mixed-use discretionary projects and land division projects to reduce, treat, infiltrate, and manage runoff flows caused by storms, urban runoff, and impervious surfaces. Low impact development practices may include:

- Use of small-scale stormwater controls such as bioretention, grass swales and channels, vegetated rooftops, rain barrels and cisterns.
- Reduction of impervious surfaces through site design and use of pervious paving materials.
- Retention of natural features such as trees and ponds on site.
- The use of drought tolerant plant materials and/or water-conserving irrigation systems.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

- 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 offsite;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows?
- In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Impacts and Mitigation Measures

Impact 3.9-1: *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less Than Significant With Mitigation. Project implementation has the potential to impact water quality standards and/or waste discharge requirements during construction (temporary impacts) and operation (polluted stormwater runoff due to an increase in impervious surfaces and urban run-off); however, as discussed below, mitigation is included to reduce potential impacts to less than significant.

Construction

Grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related water (stormwater, surface water and/or groundwater) pollution associated with the Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of water by these materials. These same types of common sense, “good housekeeping” procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater, surface water and/or groundwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants.

The Project site is located within the Central Valley RWQCB and is subject to the applicable requirements of the Basin Plan administered by the RWQCB in accordance with the Porter-Cologne Water Quality Control Act.

In accordance with the NPDES Stormwater Program, the Project will comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the RWQCB has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement. Implementation of Mitigation Measure HYD - 1 would ensure that the Project is in compliance with the NPDES Stormwater Program and that Project implementation would have a less than significant impact.

Operation

The long-term operations of the Project could result in long-term impacts to surface water quality from urban stormwater runoff. The Project would result in new impervious areas associated with site improvements, including new asphalt, concrete and the proposed structures on site. Urban runoff typically contains oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals) and other household pollutants. Precipitation early in the rain season displaces these pollutants into storm water resulting in high pollutant concentrations

in initial wet weather runoff. This initial runoff with peak pollutant levels can be referred to as the "first flush" of storm events.

As part of the Granite Creek Precise Plan, an 8.8-acre storm water basin would be installed along Avenue 14 ½ (see Figure 2-4). The proposed basin will be a dual-use basin that will have a park area and a low flow area. The low flow area will have enough capacity so that a 2-year storm event can be retained without utilizing storage from the park area. The park area will only be used for storage during other major storm events. Approximately 54 acre-feet will be required to store the anticipated runoff generated from the 204-acre Project area during a 100-year major storm event, while 14 acre-feet will be needed to store the 2-year storm event flows.

A smaller temporary basin will be constructed to accommodate stormwater for the initial 345 units at the same location and will be gradually expanded as development occurs. The ultimate basin design will be constructed at full buildout or when conditioned by the City. All storm water drainage facilities (e.g. storm drainage mechanisms and storm water pipes) would be constructed to City Development Standards.

In accordance with the City's storm water management regulations and NPDES Stormwater Program (General Stormwater Permit), BMPs would be implemented to reduce the amount of pollution in stormwater discharged from the Project site. The management of water quality through the requirement to obtain a General Stormwater Permit and implement appropriate BMPs would ensure that water quality does not degrade to levels that would violate water quality standards. These are existing regulatory requirements.

In addition, the Project will generate typical wastewater (sewer) associated with the proposed residential and commercial developments and will connect to the City's sewer system. The Project site would be located within the service area of the City of Madera's existing Wastewater Treatment Plant (WWTP). The City of Madera Sanitary Sewer System Master Plan identified the need for an additional sewer trunk line running down Road 23 (Road 23 Trunk) to connect to the WWTP. The Road 23 Trunk will be a 30-inch line that connects to a 48-inch line running parallel to an existing 48-inch pipe on Avenue 13. Both parallel 48-inch pipelines will connect to the existing WWTP. The 30-inch line will be approximately 16,000 (about 8,000 at the Avenue 14 ½ tie-in) linear feet (lf) and the parallel 48-inch pipe will be approximately 8,000. It was determined that there is sufficient capacity to temporarily tie into the Westberry Boulevard Sewer Line (Westberry Trunk) until the Road 23 Sewer Trunk Line is installed, which is supported by a report from Akel Engineering, the City's consultant for their sewer master plan. The report dated December 21, 2023, and titled Sewer System Hydraulic Analysis for Granite Creek Subdivision, analyzed the possibility for the first 345 lots of the Granite Creek Development to be accommodated by the Westberry Trunk. The report indicated that the extra

capacity is due in part to greater water use efficiency since the adoption of the 2014 Sewer System Master Plan.

To direct sewer flows to the Westberry Trunk, either a temporary lift station, reduced sewer slopes, or dirt fill will be utilized for the Plan area. Should a lift station be installed, it would be placed along Avenue 14 ½, on the east side of the development area, near the entrance to the initial first 345 lots. Upon the installation of the Road 23 Trunk, Granite Creek would be required to reverse sewer flows to the Road 23 Trunk and remove the temporary lift station.

The entire Project site is estimated to generate 187,000 gallons per day (gpd) of wastewater flows. Assuming seven percent inflow and infiltration, the total generated wastewater is expected to be approximately 200,000 gpd.

Since the WWTP is considered a publicly owned treatment facility, operational discharge flows treated at the WWTP would be required to comply with applicable water discharge requirements issued by the Regional Water Quality Control Board (RWQCB). Compliance with the conditions and permit requirements established by the City, as well as water discharge requirements outlined by the RWQCB, would ensure that wastewater discharges coming from the Project site and treated by the WWTP system would not exceed applicable Central RWQCB wastewater treatment requirements. See also Section 3.16 – Utilities and Service Systems for further discussion regarding the Project's wastewater (sewer) impacts.

Lastly, the development of the Granite Creek Precise Plan would include the construction of a water well which would be managed by the City and would be regulated by the California Department of Water Resources Bulletin 74, which enforces standards for well construction and water quality testing to prevent contamination. These regulations ensure that new wells are properly sited, designed, and tested. The City complies with the Sustainable Groundwater Management Act (SGMA), which requires the City to work with local Groundwater Sustainability Agencies (GSAs) to manage, monitor, and balance pumping and recharge by 2040. The City collaborates with GSAs to implement Groundwater Sustainability Plans that address declining water levels and water quality.

The Project will not result in a violation of any water quality standards or waste discharge requirements. Therefore, with mitigation, impacts result in a *less than significant impact*.

Mitigation Measures:

HYD – 1

In order to reduce on-site erosion due to Project construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional prior to the issuance of grading permits. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System (NPDES). Erosion control measures shall include at a minimum, but not limited to the following:

- i. Limit disturbance of soils and vegetation disturbance removal to the minimum area necessary for access and construction;
- ii. Confine all vehicular traffic associated with construction to the right-of-way of designated access roads;
- iii. Adhere to construction schedules designed to avoid periods of heavy precipitation or high winds;
- iv. Ensure that all exposed soil is provided with temporary drainage and soil protection when construction activity is shut down during the winter periods; and
- v. Inform construction personnel prior to construction and periodically during construction activities of environmental concerns, pertinent laws and regulations, and elements of the proposed erosion control measures.

The erosion component of the plan shall at least meet the requirements of the SWPPP required by the Central Valley RWQCB. Additional erosion control measures shall be implemented in consultation with the City of Madera. Prior to the issuance of any permit, the Project proponent shall submit detailed plans to the satisfaction of the City of Madera for approval. The components of the erosion control plan and SWPPP shall be monitored for effectiveness by the City of Madera.

Impact 3.9-2: *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. The Project would add demand for potable water to the City of Madera water system, which is reliant on groundwater to serve its customers. The City of Madera adopted their 2020 UWMP Update in September 2022 which includes the City's future water demands for future developments within the existing city limits, as well as future developments within future service areas currently outside the existing city limits. Currently, the Project site is not within the

City limits and only half of the area is within the SOI. Therefore, development on the Project is not included in the 2020 UWMP Update and requires an additional demand not realized in the 2020 UWMP. The information herein is based, in part, on the SB 610 Water Supply Assessment that was prepared for the Project (Appendix E). The results are summarized herein.

Water Duty Factor

Domestic water duty factors are coefficients commonly used in planning level analysis to estimate future average daily demands for predetermined land uses of a specific area. The water duty factor is multiplied by the number of gross acres to yield the average daily demand projections. The City's 2020 UWMP Update did not list the water duty factors used for the various land uses. However, it indicated that the projected water use is based on the 2020 Water Use Target of 167 gpcd in 2030 for residential uses (including residential landscaping). The WSA derived the water duty factors for commercial and public institutional uses by dividing the land use area for each respective use by the corresponding annual water usage recorded in the City's 2020 UWMP Update tables.³

In determining the projected indoor and outdoor water duty factors, documents were consulted including the 2020 UWMP Update, the 2020 Infrastructure Master Plan, the 2014 Madera WSMP, and other San Joaquin Valley water system master plans that document duty factors, as well as the water demand factor database used by Akel Engineering Group in the WSA. Thus, the Project's indoor water duty factor for residential is estimated at 160 gpd/DU, the indoor water duty factor for commercial is estimated at 700 gpd/ac, and the indoor water duty factor for public and semi-public is estimated at 126 gpd/ac. The Project's outdoor water duty factor for residential is estimated at 7 gpd/DU, the outdoor water duty factor for residential is estimated at 179 gpd/ac, and the outdoor water duty factor for commercial use is estimated at 294 gpd/ac.⁴

Project Water Demand

Based on applying the water duty factor for each land use type and multiplying them to their respective areas, the Project's indoor water demand is calculated at 267,210 gpd (equivalent to 299.28 afy), and the outdoor water demand is calculated at 21,882 gpd (equivalent to 24.51 afy). The total water demand for this Project is calculated at 289,092 gpd (equivalent to 323.78 afy), as broken down in Table 3.9-1.⁵

³ WSA for Granite Creek Development, Akel Engineering Group, March 2025. Page 6. Appendix E.

⁴ Ibid.

⁵ Ibid, pages 6 & 7.

Table 3.9-1
Proposed Development and Project Potable Water Demand⁶

Proposed Land Use ¹	Lot Area	Maximum Dwelling Units	Unit	Water Duty Factor ²	Water Demand	
	(ac)	(DU)		(gpd/Unit)	(gpd)	(afy)
Indoor Water Demand						
Residential						
Low Density Residential	105.44	738	DU	160	118,080	132.25
Medium Density Residential	35.35	530	DU	160	84,800	94.98
High Density Residential	5.48	274	DU	160	43,840	49.10
Subtotal	146.27	1,542	DU	160	246,720	276.33
Commercial						
Village Mixed Use	10.06	-	acre	700	7,042	7.89
Neighborhood Commercial	15.19	-	acre	700	10,633	11.91
Subtotal	25.25	-	acre	-	17,675	19.80
Public and Semi-Public Land Use						
Public Institutional	22.34	-	acre	126	2,815	3.15
Subtotal	22.34	-	acre	126	2,815	3.15
Total Indoor Water Demand		1,542	-	-	267,210	299.28
Outdoor Water Demand						
Residential	146.27	1,542	DU	7	10,794	12.09
Commercial	25.25	-	acre	179	4,520	5.06
Public Institutional	22.34	-	acre	294	6,568	7.36
Total Outdoor Water Demand		1,542	-	-	21,882	24.51
Total Water Demand						
Total		1,542			289,092	323.78

3/28/2025

Notes:

1. Project information provided by Crawford & Bowen Planning, Inc. on March 5, 2025.
2. The water duty factors are determined based on 2020 Madera UWMP Update, 2020 Infrastructure Master Plan, 2020 Water Use Target, and Akei Engineering Group, Inc. experience.

Total Water Demand

The projected water demand of the Project is not included in the 2020 UWMP Update because it was initially designed for agricultural use. Therefore, the total proposed water demand will be added to the future water demand of 2020 UWMP Update table. The total water demand of the development and the 2020 UWMP Update is calculated at 14,870 afy by 2025. The UWMP Update does not include projections for the year 2045; however, based on the average annual changes between 2025 and 2040,

⁶ Ibid, Table 6

the total projections (including the Granite Creek Precise Plan development) are assumed to be 17,278 afy by 2045.⁷

City of Madera Water Supply – Normal Years

Groundwater. As previously mentioned, groundwater is the only source of the City’s potable water supply. The groundwater basin underlying the City is the Madera Subbasin (5.022-06) within the San Joaquin Valley Basin (5.022) (2020 UWMP Update Table 6-1). Although the Madera Subbasin is not adjudicated, the Department of Water Resources (DWR) has identified the Madera Subbasin as a critically over-drafted basin and is classified as high priority, based on the 2019 SGMA-BP.⁸

Historically, groundwater pumping has decreased over time to ensure that the water demand usage remains below the 2020 target. Based on the City’s 2020 UWMP Update, the City’s confirmed 2020 target was 196 GPCD, but their actual 2020 GPCD was 119 GPCD. The UWMP Update documents 9,203 AF of groundwater pumped in 2016, and only 8,754 AF pumped by 2020. This is largely due to mitigation efforts. According to the 2020 UWMP Update, the City maintains a conservative expectation where groundwater pumping will increase from 14,870 afy to 17,278 afy based on the 2020 water use target over the next twenty years. The supply total is assumed to match the demand total since groundwater pumping will operate to meet demands per 2020 UWMP Update. Therefore, the city won’t meet the water deficit in a normal years.

Other Water Categories⁹

- *Surface Water* The City may receive some surface water through the overflow of the Fresno River during wet months. This is an important source of groundwater recharge; however, the City does not have water rights or contracts from the government to claim this supply. The City has purchased small amounts of surface water from MID in the past to aid with groundwater recharge.
- *Stormwater* There are stormwater basins throughout the City that have been connected to MID facilities and are used for groundwater recharge.
- *Recycled Water* The City currently does not have any programs implementing recycled water. The City has conducted a recycled water feasibility study in 2013, where the analysis predicted a recycled water supply up to 3,300 AF/year.

⁷ Ibid, page 7.

⁸ Ibid.

⁹ Ibid, page 8.

However, the costs from treatment and distribution prevented further action on implementation.

- *Exchanges and Transfers* The City currently does not have any agreements to exchange or transfer water with other agencies. However, opportunities may arise to exchange treated wastewater for surface water with MID.

Response to Climate Change

Due to the notable changes within the climate, the City's 2020 UWMP Update warns that drastic changes in temperatures, precipitation, etc. may impact the available water supply. The City plans to address these changes by reducing the per capita demand by potentially initiating the use of recycled water in the future. By using recycled water, as well as other mitigation strategies, the water demand for landscapes will not increase.¹⁰

Water Supply (Dry-Years)

According to the 2020 UWMP Update, the City's available water supply during a single dry year will be largely unaffected by dry weather conditions due to the City's reliance on groundwater. Therefore, the City's water supply will consistently meet the water demands through 2045. Similarly, the available water supply during multiple dry years will also remain unaffected by dry weather conditions through 2045. However, because the groundwater basins are critically over-drafted, caution is still advised.¹¹

Demand and Supply Comparison (Dry Years)

The total water supply and demand can be compared during single-dry and multiple-dry years. These results are summarized in Tables 3.9-2 and 3.9-3.

¹⁰ Ibid, page 9.

¹¹ Ibid.

Table 3.9-2
Single Dry Year Demand and Supply Comparison¹²

	2025	2030	2035	2040	2045
	(afy)	(afy)	(afy)	(afy)	(afy)
Demand^{1,2,3}					
Madera 2020 UWMP Update ⁴ + Granite Creek Precise Plan	14,870	15,018	15,844	16,716	17,265
Supply⁵					
Groundwater (not desalinated)	14,870	15,018	15,844	16,716	17,265
Demand vs. Supply					
Surplus (+) / Deficit (-)	0	0	0	0	0

AKEL
ENGINEERING GROUP, INC.

3/28/2025

Notes:

1. A 5-year buildout, with construction beginning in 2026 and completion expected by 2030, is assumed by Akel Engineering Group as of March 6, 2025.
2. 336.89 afy potable water demand is added to the total demand projections extracted from the 2020 UWMP Update.
3. Total water demand of FY2045 is assumed based on Akel Engineering Group, Inc. experience and the increased water demand percentage of the annual year between 2025 and 2040.
4. Source: 2020 Madera UWMP Update, Table 7-3.
5. From 2020 UWMP Update Chapter 6.2.9.1.1, the City plans to continue using groundwater to meet their water demands.

¹² Ibid. Table 10.

Table 3.9-3
Multiple Dry Years Demand and Supply Comparison¹³

	2025	2030	2035	2040	2045
	(afy)	(afy)	(afy)	(afy)	(afy)
First Year					
Demand totals	14,870	15,018	15,844	16,716	17,265
Supply totals	14,870	15,018	15,844	16,716	17,265
Surplus (+) / Deficit (-)	0	0	0	0	0
Second Year					
Demand totals	14,870	15,018	15,844	16,716	17,265
Supply totals	14,870	15,018	15,844	16,716	17,265
Surplus (+) / Deficit (-)	0	0	0	0	0
Third Year					
Demand totals	14,870	15,018	15,844	16,716	17,265
Supply totals	14,870	15,018	15,844	16,716	17,265
Surplus (+) / Deficit (-)	0	0	0	0	0
Fourth Year					
Demand totals	14,870	15,018	15,844	16,716	17,265
Supply totals	14,870	15,018	15,844	16,716	17,265
Surplus (+) / Deficit (-)	0	0	0	0	0
Fifth Year					
Demand totals	14,870	15,018	15,844	16,716	17,265
Supply totals	14,870	15,018	15,844	16,716	17,265
Surplus (+) / Deficit (-)	0	0	0	0	0

AKEL
ENGINEERING GROUP, INC.

3/28/2025

Notes:

1. A 5-year buildout, with construction beginning in 2026 and completion expected by 2030, is assumed by Akel Engineering Group as of March 6, 2025.
2. Source: 2020 Madera UWMP Update, Table 7-4.
3. 336.89 afy potable water demand is added to the total demand projections extracted from the 2020 UWMP Update.
4. Total water demand of FY2045 is assumed based on Akel Engineering Group, Inc. experience and the increased water demand percentage of the annual year between 2025 and 2040.
5. From 2020 UWMP Update Chapter 6.2.9.1.1, the City plans to continue using groundwater to meet their water demands.

¹³ Ibid. Table 11.

The tables verify that the City's total water supplies are sufficient to meet the City's water demands with the addition of the Project under different water years. Per the 2020 UWMP Update, the supply is assumed to match the demand since groundwater pumping will continue to operate until demands are met even though state-wide conservation mandates are required.¹⁴

Water shortage Contingency Plan

In the event of a water shortage, the City has outlined its response levels and respective conservation targets, as well as the specific actions that will be taken to meet the criteria. When existing conditions (stage 1) become strained, the conservation target grows from stage 2 through stage 4 where there would be a 5-10%, 10-35%, and 35-50% decrease in water usage, respectively. Actions to meet the conservation target include limits on when and what kind of water usage is permissible.¹⁵

Conclusion

The estimated water demand of the Project site was calculated as 323.78 afy, as broken down in Table 3.9-1. This total proposed water demand will be added to the future water demand of 2020 UWMP Update table. The total water demand of the development and the 2020 UWMP Update is calculated at 14,870 afy by 2025, increasing to 17,278 afy by 2045.

The supply total is assumed to match the demand total since groundwater pumping will operate to meet demands per 2020 UWMP Update. Therefore, the City's total projected water supply availability during normal, single-dry, and multiple-dry water years will meet the projected water demand for the Project over the next 20 years (through 2045)¹⁶. Therefore, the Project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. The impact is determined to be *less than significant*.

Mitigation Measures: None are required.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid, page 10.

Impact 3.9-3: *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 offsite;*
- ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*
- iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
- iv. impede or redirect flood flows?*

Less Than Significant With Mitigation. Construction and long-term operations of the Project could result in potential impacts to surface water quality from urban stormwater runoff. The Project would result in new impervious areas associated with site improvements, including new asphalt, concrete and the proposed structures on site. Urban runoff typically contains oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals) and other household pollutants. Precipitation early in the rain season displaces these pollutants into storm water resulting in high pollutant concentrations in initial wet weather runoff. This initial runoff with peak pollutant levels can be referred to as the "first flush" of storm events.

The Project would install storm water drainage facilities (e.g. storm drainage mechanisms and storm water pipes) that would be in compliance with the City of Madera Development Standards. The Project will discharge stormwater runoff through a proposed storm drain system that drains into the onsite 8.8-acre stormwater basin (see Figure 2-4). The proposed basin will be a dual-use basin that will have a park area and a low flow area. The low flow area will have enough capacity so that a 2-year storm event can be retained without utilizing storage from the park area. The park area will only be used for storage during other major storm events. Approximately 54 acre-feet will be required to store the anticipated runoff generated from the Granite Creek Precise Plan area during a 100-year major storm event, while 14 acre-feet will be needed to store the 2-year storm event flows.

A smaller temporary basin will be constructed for the initial 345 units at the same location and will be gradually expanded as development occurs. The ultimate basin design will be constructed at full buildout or when conditioned by the City.

Substantial erosion, siltation or flooding are not expected to occur as the site is developed. In accordance with the NPDES Stormwater Program, the Project will be required to comply with

existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the RWQCB has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to review and approval by the RWQCB and are an existing regulatory requirement. Construction of the storm drain basin and implementation of Mitigation Measure HYD-1 would ensure that the Project would have a *less than significant impact* relative to this topic.

Mitigation Measures:

Implement Mitigation Measure HYD-1.

Impact 3.9-4: *In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?*

Less Than Significant. The Project area is outside of any Special Flood Hazard Areas or other Areas of Flood Hazard, as designated by Flood Insurance Rate Maps 06039C1150E and 06039C1155E, effective 9/26/2008. The riverine area outside the Project properties to the north is designated as a Special Flood Hazard Area Without a Base Flood Elevation (BFE), or “Zone A”.

The site plan has been designed with adequate storm drain capacity, and compliance with the requirements for SWPPP and BMP (Mitigation Measure HYD-1) will ensure that risk of release of pollutants due to Project inundation is less than significant. The site is also located more than 75 miles from the nearest ocean that could cause a tsunami and there are no bodies of water near the Project site that would represent any impacts related to seiche zones. Therefore, there is a *less than significant impact* related to flooding and related hazards.

Mitigation Measures: None are required.

Impact 3.9-5: *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less Than Significant. See the response to Impacts 3.9-1 and 3.9-4 pertaining to water quality. The Project would install storm water drainage facilities (e.g. storm drainage mechanisms and storm water pipes) that would be in compliance with the City of Madera Development Standards. In addition, water quality protection measures are included as mitigation and the Project would be in compliance with the City’s Storm Drain Master Plan. This will ensure Project water quality impacts are less than significant.

The City of Madera is part of the City of Madera Groundwater Sustainability Agency (CMGSA). The Project, if approved, would come under the jurisdiction and purview of Madera Subbasin Joint Groundwater Sustainability Plan. Projects and management actions described in the GSP include:

- Berry Basin (Implemented in 2018): Objective is to increase recharge of the Berry Basin in conjunction with MID.
- Meters and Volumetric Pricing (Implemented in 2015): Objective is to install water meters and implement volumetric billing for single-family homes to reduce evaporation and groundwater pumping.

Upon approval, the Project will be subject to the rules and requirements of CMGSA's GSP. Therefore, the Project will not conflict with or obstruct a sustainable groundwater management plan. Impacts are *less than significant*.

Mitigation Measures:

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. The geographic area for cumulative hydrology analysis is the land area included in the Madera Sub Basin. Buildout of the City's General Plan and other pending projects in the Basin area will contribute to changes to stormwater collection systems and groundwater quality as well as an increase in groundwater demand.

Development of the Project in combination with future projects associated with buildout of the General Plan would increase the amount of impervious surfaces in the area. Stormwater runoff is typically directed into adjacent streets where it flows to the nearest drainage system. As with the Project, each new development would be required to design and develop a stormwater collection system that ensures appropriate water quality protection measures and sufficient capacity. All projects would be required to implement Best Management Practices and to conform to the existing NPDES water quality regulations. Mitigation Measure MM HYD-1 would require the Project to prepare and implement a SWPPP in accordance with City and State requirements. Similarly, all projects that would not retain all runoff onsite would be required to prepare a SWPPP, which would include BMPs designed to prevent the mixture of sediment and other pollutants with stormwater and degrading water quality. With implementation of Mitigation Measure HYD-1, cumulative impacts of the Project to water quality would be less than significant.

Therefore, cumulative impacts associated with stormwater collection and water quality is less than cumulatively considerable.

With respect to erosion, drainage, and flooding, the Project would implement Mitigation Measure HYD-1 would minimize direct impacts on erosion, drainage, and flooding. It is anticipated that other cumulative scenario projects would be required to implement similar measures, in order to minimize erosion, drainage, and flooding related impacts. Additionally, drainage related impacts from cumulative scenario projects would be primarily localized. Therefore, cumulative scenario impacts on erosion, drainage, and flooding are not anticipated to be cumulatively considerable, and the Project would not contribute to a cumulative impact on flooding, erosion, or drainage.

With respect to water supplies, the City of Madera is part of the City of Madera Groundwater Sustainability Agency (CMGSA). The Project, if approved, would become under the jurisdiction and purview of CMGSA's Groundwater Sustainability Plan. The City of Madera utilizes groundwater as its sole source of potable water. As identified herein and in the SB 610 Water Supply Assessment, the City anticipates being able to provide adequate potable water to the City through the year 2045. Thus, the Project would result in *less than significant cumulative impacts* to groundwater supplies in the Basin.

3.10 Land Use and Planning

This section of the DEIR evaluates the potential environmental effects related to land use and planning associated with implementation of the Project. No NOP comment letters were received pertaining to this topic.

Environmental Setting

The Granite Creek Precise Plan Area (Plan Area) is generally located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area is bound by Avenue 14-1/2 to the south, Road 23 to the west, the Fresno River to the north, and Road 24 to the east. The Plan Area consists of two (2) properties that total approximately 204 acres that are generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Plan Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) for the City of Madera. The Plan Area consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026.

A majority of the Plan Area is currently in agricultural production of grapevines and almond trees. The Plan Area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. The south side of the Project area includes a combination of residential uses and agricultural uses.

Regulatory Setting

Federal Regulations

Federal Aviation Regulation Title 14 Part 77

The Federal Aviation Administration regulates airspace around civil airports. The three existing airports located within the Planning Area are required to be consistent with Part 77 of the Federal Aviation Regulation (FAR). Part 77 requires the airspace to be free of obstructions to air navigation during critical flight phases and states that obstructions shall not penetrate the "imaginary surfaces" surrounding an airfield as defined in FAR Part 77. The "imaginary surfaces" are determined by runway length and type of navigational approach instrumentation available.

State of California Regulations

The Cortese-Knox-Hertzberg Local Government Reorganization Act

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56300 et seq.) governs the establishment and revision of local government boundaries. The Act was a comprehensive revision of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 1985. The Act is a policy of the state to encourage orderly growth and development that are essential to the social, fiscal, and economic well-being of the state. The intent of the Act is to promote orderly development while balancing competing state interests of discouraging urban sprawl, preserving open space and prime agricultural lands, and efficiently extending government services. The Act had previously established the County Local Agency Formation Commission (LAFCO), which gave it authority to consider and approve city and special district annexation, dissolution, and formation.

California Land Conservation Act

The California Land Conservation Act, better known as the Williamson Act, was enacted by the State Legislature in 1965 to encourage the preservation of agricultural lands. Under the provisions of the act, landowners agreeing to keep their lands under agricultural production for a minimum of ten years receive property tax adjustments. Williamson Contracts limit the use of the properties to agricultural, open space, and other compatible use. Williamson Act lands are assessed based on their agricultural value, rather than their potential market value under nonagricultural uses.

Local Regulations

Local Agency Formation Commission of Madera County

Local Agency Formation Commissions (LAFCOs) review proposals for the formation of new local governmental agencies and for changes in the organization of existing agencies. The Madera County LAFCO's mission is to coordinate logical and timely changes in local governmental boundaries and to implement the applicable provisions of State law, namely the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000¹. LAFCO sets spheres of influence for each city and special district within its jurisdiction; conducts special studies to review potential simplification and streamlining of governmental structure and increase cost effectiveness; and provides for reorganization or consolidation of local governmental agencies when appropriate. It

¹ Madera County LAFCO. <https://www.maderacounty.com/government/madera-lafco>. Accessed February 2026.

is LAFCO's goal to prevent premature or illogically planned development and to see that services are provided efficiently and economically while agricultural and open-space lands are protected.

Madera Countywide Airport Land Use Compatibility Plan

The Madera Countywide Airport Land Use Compatibility Plan (ALUCP) contains individual compatibility plans for the Chowchilla Municipal Airport and the Madera Municipal Airport, the two public-use airports in Madera County. The Madera Municipal Airport is located north of the Plan Area. In 2015, the Madera County Airport Land Use Commission (ALUC) adopted the ALUCP for the two airports within the County, including the Madera Municipal Airport. The ALUCP identifies four compatibility factors in which the compatibility zones for the Chowchilla and Madera Municipal Airport were derived. The four compatibility factors are defined by:

- Noise – Future noise contours reflecting a forecasted aircraft activity level of 100,000 annual operations.
- Overflight – Primary traffic patterns reflecting where aircraft and helicopters operating at the airport routinely fly.
- Safety – Generic safety zones provided in the California Airport Land Use Planning Handbook (October 2011) are applied to the existing and future runway configurations.
- Airspace Protection – Outer boundary of the Obstruction Surfaces as defined by FAR Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace

The ALUCP provides land use compatibility criteria for land near the airport to avoid potential safety problems and to ensure airport operations are not constrained by surrounding development. To establish compatibility criteria, the ALUCP establishes three safety zones that are linked to land use compatibility: clear, approach/departure, and overflight. The clear zone is near each end of the runway and is the most restrictive in allowing land uses. The approach/departure zone is located under the takeoff and landing slopes, and is less restrictive. The overflight zones are areas where aircraft maneuver to enter or leave the traffic pattern, typically defined by the FAR Part 77, as described above. The safety zones in turn form the establishment of “Compatibility Zones” around airports for the purpose of assessing land use compatibility within the Airport Influence Area (AIA). Figure 3.10-1 depicts the Compatibility Zones in the AIA of the Madera Municipal Airport. A small portion of the northeast corner is located within Compatibility Zone C2 (Primary Traffic Pattern Zone), which has a low to moderate risk level associated with accidents. The remaining portion of the Plan Area is within Compatibility Zone D (Other Airport Environs) where the accident risk is categorized as low. Under California Government Code Section 65302.3(a), general plans must be consistent with any airport land use plan adopted pursuant to Public Utilities Code Section 21675. The Madera

County ALUC monitors land use and development compliance with Airport Land Use Compatibility Plan provisions.

Madera County Transportation Commission

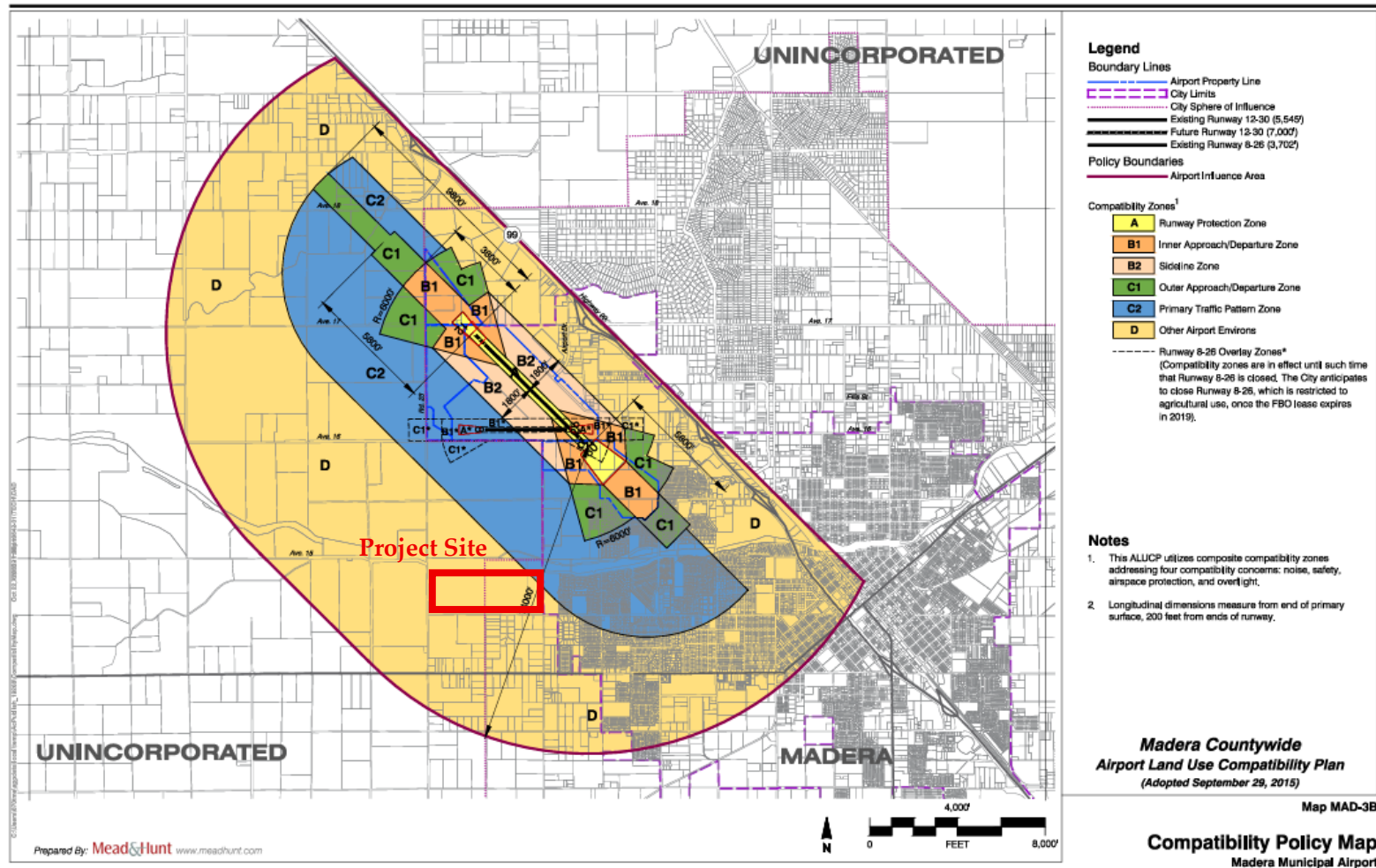
The Madera County Transportation Commission (MCTC) is the Regional Transportation Planning Agency (RTPA) and the designated Metropolitan Planning Organization (MPO). MCTC's efforts address regional issues relating to transportation, land use and urban form, housing, environment, economic development, regional public facilities, and climate change plans and programs that MCTC has adopted or participates in are described below.

2018 Regional Transportation Plan and Sustainable Communities Strategy. The MCTC is required to update the Regional Transportation Plan (RTP) to reflect the existing and future regional transportation system in Madera County. The 2018 update reflects the horizon or “planning” year of 2042, to ensure that the region's transportation system and implementation policies and programs in the RTP and in the Sustainable Communities Strategy (SCS) will safely and efficiently accommodate growth envisioned in the General Plan Land Use Elements of the Cities of Chowchilla and Madera and Madera County. As the RTPA and MPO for Madera County, MCTC is responsible for development of the RTP and the SCS.

San Joaquin Valley Blueprint. The MCTC works with the seven Regional Transportation Agencies of the additional counties within the San Joaquin Valley to implement the San Joaquin Valley Blueprint planning process. The San Joaquin Valley Blueprint planning process is a unique opportunity to work together to convey a regional vision of land use and transportation that will be used to guide growth in the San Joaquin Valley over the next 50 years. Through its public outreach and education component and technical data for local decision makers, the Blueprint provides a tangible opportunity to ensure the San Joaquin Valley remains a desirable place to live.

San Joaquin Valley Greenprint. The San Joaquin Valley Greenprint is a voluntary, stakeholder-driven project that provides agricultural, water, and environmental leaders with improved planning data and fosters regional collaboration on strategies that prioritize resource sustainability while enhancing economic prosperity. It focuses on the challenges and opportunities in non-urban land use planning, and how those rural decisions shape the region's economy and environment.

Figure 3.10-1

ALUCP Compatibility Plan²

² Madera County. Madera Countywide Airport Land Use Compatibility Plan. Map MAD-3B. <https://www.madera.gov/media/sfjfl3c/2015-alucp.pdf>. Accessed February 2026.

City of Madera General Plan

The lists of policies and implementation actions from the City of Madera General Plan pertaining to land use that are applicable to the Project are provided in Table 3.10-1.

City of Madera Zoning Ordinance

The City of Madera Zoning Ordinance establishes regulations governing the development and use of land in accordance with the City of Madera General Plan in a manner that protects the public health, safety, comfort and convenience, and welfare of residents and businesses of Madera. The zoning code provides information to facilitate the efficient review of development proposals, while providing opportunity for public review and comment for proposals that may have a significant impact on the community.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, the project would have a significant impact on land use if the project would:

- Physically divide an established community?
- 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?

Impacts and Mitigation Measures

Impact 3.10-1: *Physically divide an established community?*

Less Than Significant. The Project would have a significant environmental impact if it would create a barrier between portions of an established community.

The site is currently outside the City limits, but within the Sphere of Influence (SOI) and the Urban Growth Boundary (UGB) of City of Madera. The Project site is immediately west of the urbanized City. The Project area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. The south side of the Project area includes a combination of residential uses and agricultural uses. The Project would not divide an established community but would be a natural extension of planned urbanization.

As described above, the Plan Area generally consists of farmland. Land uses adjacent to the Plan Area would not be restricted or divided from services and would continue to operate as they do in the

existing condition. The Project will implement a circulation network, including pedestrian and bicycle paths and trails, as well as roadway, landscape, and sidewalk improvements, which would help provide connectivity within the Plan Area. Therefore, the Project would not divide an established community and *a less than significant impact* would occur.

Mitigation Measures

None are required.

Impact 3.10-2: *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. The City of Madera General Plan and Zoning Ordinance establish land use policies and regulations that are applicable to the Project. Many of the plans, policies, and regulations are addressed in various sections of Chapter 3 of this EIR. Upon annexation, the Project would be subject to the land use plans, policies and regulations of these documents. The following discussion evaluates the conformity of the Project to the plans, policies and regulations that have been adopted for the purpose of avoiding or mitigating an environmental effect.

The City of Madera's General Plan includes several policies to account for future growth (See General Plan policies related to land use in the Local Regulations section above). Table 3.10-1 provides a comparison of the Projects characteristics with all applicable policies included in the General Plan as they relate to land use issues. As discussed below, the proposed Precise Plan is generally consistent with the General Plan because the Project implements a comprehensive land use plan that is required by Policy LU-34 of the General Plan.

The Project includes a General Plan Amendment (GPA) to change the existing land use of Village Reserve to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses. The GPA will also modify the requirement of establishing a permanent agricultural buffer along the westerly edge of the Plan Area.

Upon Project approval and amendment to the General Plan, the Project would be consistent with the General Plan. Therefore, this impact is considered *less than significant*.

Table 3.10-1
General Plan Consistency Analysis

Goal/Policy No.	Goal/Policy Text	Consistency Determination
LU-10	The Growth Boundary is considered by the City to define the physical limits of development in Madera. The City shall direct all future growth in Madera and in the unincorporated area outside the city limits to occur inside the Growth Boundary shown on the Land Use Map in this General Plan. Within the City's Planning Area, the City encourages the County to assist the City in maintaining an agricultural greenbelt around the Growth Boundary by limiting the use of land designated for Agriculture on the City's General Plan Land Use map to agriculture. 8-16 The following apply to the Growth Boundary: • The Growth Boundary may only be revised as part of a comprehensive update of the General Plan involving, at a minimum, the Land Use and Circulation elements. • Any revision to the Growth Boundary shall be accompanied by a statement of findings which demonstrate the following: 1) That the revision is consistent with the intent of the Growth Boundary and all other applicable policies in this General Plan; 2) That the revision is necessary to accommodate planned growth in Madera.	Consistent. The Project is consistent with this policy since it is wholly within the Urban Growth Boundary.
LU-11	The City specifically envisions the establishment and maintenance of a greenbelt of agricultural and other open space lands around the urbanized portion of the Planning Area, outside the Growth Boundary, as shown on the Land Use Map. In addition to the maintenance of appropriate agricultural land use designations, the City encourages the use of Williamson Act contracts and similar mechanisms to ensure the maintenance of the greenbelt. Along the west edge of the Planning Area, the Greenbelt is intended to be permanent, and the implementing mechanisms on the west edge should reflect that intent, including transfer of development rights, permanent conservation	Consistent: The City's Urban Growth Boundary would be consistent with the boundaries of the proposed Plan Area. As a result, the areas outside of the Plan Area would function as a greenbelt of agriculture. A large amount of agricultural land to the west and south of the Project area is within a Williamson Act Contract, a 20-year Farmland Security Zone, or

Goal/Policy No.	Goal/Policy Text	Consistency Determination
	easements, etc. (See specific policies for Villages D & E for requirements to establish a permanent edge/buffer on the western boundary of these Villages.)	within California Conservation Easements, which provides a protected greenbelt buffer outside of the Urban Growth Boundary. Areas within the Plan Area would also serve to preserve open space. Areas include open space along the Fresno River, and recreational trail facilities located throughout the Plan Area.
LU-13	The City shall support the annexation of property to its boundaries for the purpose of new development only when it determines that the following conditions exist: 1) Sufficient public infrastructure, facilities, and services are available or will be provided in conjunction with new development; and 2) Demands on public infrastructure, facilities and services created by the new development will not result in reductions in capacity that is necessary to serve the existing city limits (including demand created by potential infill development), reductions in existing service levels within the city limits, or the creation of detrimental fiscal impacts on the City.	Consistent. The proposed Precise Plan implements the goals of the General Plan by providing urban growth areas to focus future growth. As the proposed Precise Plan is implemented, the City will continue to evaluate public infrastructure, facilities, and services to ensure that adequate capacity is available to accommodate the growth.
LU-14	All proposals to annex property into the City limits for the purpose of new development shall prepare a Public Facilities Financing Plan (PFFP) that articulates infrastructure and public facilities requirements, their costs, financing mechanisms, and the feasibility of the financial burden. The PFFP shall analyze backbone infrastructure and public service needs and funding capacity at the Village level, as defined in Figure LU-3 of the Land Use Element of this General Plan. (The Planning Process required for Village Reserve Areas in Policy LU-34 shall be sufficient to meet this requirement.) The cost of preparing the PFFP shall be shared proportionately among property owners in each Village, with the shares of any non-participating owner collected at the time of development and reimbursed to owner(s) who	Consistent: A PFFP that identifies infrastructure and public facilities requirements, and associated costs and financing mechanisms, will be included as part of the project approval of the proposed Precise Plan. Mitigation Measure LU-1 is included below to require completion and acceptance of a PFFP prior to approval of the proposed Precise Plan.

Goal/Policy No.	Goal/Policy Text	Consistency Determination
	prepared the PFFP through a reimbursement agreement.	
LU-17	It is the policy of the City of Madera that any lands in the Planning Area outside of the City which are proposed to be converted from agricultural use should be annexed to the City before development. The City encourages the County to assist in the implementation of this policy by taking the following actions: • Discouraging the subdivision of unincorporated land within the Planning Area to parcel sizes less than twenty acres. • Directing all new urban development within the Growth Boundary (development that would typically be expected to connect to community sewer and water systems) to annex into the City and by supporting annexation applications at the Local Agency Formation Commission.	Consistent. The land within the Precise Plan Area is primarily agricultural in nature, and once annexed into the City, would be converted to non-agricultural, urban land uses throughout implementation of the proposed Precise Plan. The development of the Project would occur within the City's Urban Growth Boundary and after the Plan Area is annexed into the City. Implementation of the proposed Precise Plan would ensure orderly growth and adequate infrastructure and public facilities and services to support the future population within the Precise Plan Area by establishing a land use plan, as shown in Figure 2-4 of the Project Description, and establishing financing and maintenance responsibilities through likely Development Agreements for long-term implementation and buildout.
LU-20	New residential development should be designed to avoid continuous blocks or clusters of dwellings that are connected only by streets, sidewalks, and hardscape. New development shall incorporate amenities which establish a sense of identity at the project or neighborhood level, create opportunities for community interaction, and enhance the visual appeal of the area. Features which accomplish these goals may include pathways, paseos,	Consistent. The Precise Plan proposed as part of the Project establishes Development Standards and Design Guidelines to establish a cohesive neighborhood that provides a sense of identity by creating a compact mixed-use community, a diversity of

Goal/Policy No.	Goal/Policy Text	Consistency Determination
	parks, community gardens, and other semi-public gathering places.	residential building types, and walkable and bikeable streets that allow for a diverse, well-balanced community. The Precise Plan also includes public amenities, including parks, recreation areas, natural open space, and trails.
LU-22	Single family developments need to provide functional outdoor recreational space. The space can be provided either on individual lots or more efficiently as aggregated local public spaces, creating features such as those described in Policy LU-20.	Consistent. The proposed Precise Plan includes approximately 9.74 acres of open space throughout the Plan Area. Outdoor recreational space would be provided in the form of community parks, neighborhood parks, pocket parks and trails.
LU-34	All planning for areas designated on the Land Use Map as “Village Reserve” shall implement the 3 step planning process described below: Step1: Comprehensive Land Use and Implementation Planning Step 2: Detailed Neighborhood Plans Step 3: Development Proposals This planning process is intended to provide progressively more detailed plans for Village Reserve areas, Neighborhoods, and individual development projects. The following general rules apply to this planning process: • Each step in the planning process may be initiated by the City of Madera or by another private or public sector applicant(s). • Each step in the planning process must be completed as a prerequisite for the next step. However, multiple steps (1+2 or 1+2+3 or 2+3) may be undertaken	Consistent. The entire Plan Area is identified as Village Reserve. The proposed Precise Plan clears Step 2 of the 3-step planning process – detailed neighborhood plans – while the proposed General Plan Amendment clears Step 1, concurrently. This Precise Plan is prepared in compliance with the General Plan policy for Neighborhood planning. However, because there is no mechanism in the Zoning Ordinance for Neighborhood Plans, the Precise Plan mechanism outlined for Planned Development zones is being utilized. This Precise Plan, known as the

Goal/Policy No.	Goal/Policy Text	Consistency Determination
	simultaneously. As a general rule, the City would expect that a private applicant would submit a Comprehensive Land Use and Implementation Plan and its components (Step 1), together with a Neighborhood Plan (Step 2) for at least one neighborhood, as the initial submittal. • At the Comprehensive Land Use and Implementation Plan and Neighborhood Plan level, the participation of all affected property owners is encouraged, but not required. A private sector applicant submitting either type of plan must include a list of all affected owners and their property(ies) and must show how their participation was sought. • In some Village areas (as mapped and defined in this Land Use Element), the Village Reserve designation applies only to a portion of the Village. In this case, the process outlined below is required only for the Village Reserve areas, not to the entire Village. However, submitting plans that cover the entire Village is permitted. In some Village Reserve areas, a Village Center is not required. See the detailed policies for the affected Village area (below) for further information. In addition to the required plans, maps, reports, etc., the City may at its discretion require other items as needed to address issues in any particular Village. These may include additional environmental analysis, traffic studies, biological studies, noise studies, etc.	Granite Creek Precise Plan, sets forth the vision for the plan area to a level of detail sufficient to evaluate individual development proposals within the Plan Area. At a high level, the Plan discusses the goals and policies, land use, design vision, circulation, public services, and infrastructure improvements for the entire Plan Area. While the Plan discusses these items, future development within the Plan Area will be evaluated on an individual level at the time development is proposed, as required in Step 3.
Village E Policy 1	Future development along the Fresno River should be designed to take advantage of the river frontage, including orienting development to front the river where not otherwise prohibited by site conditions.	Consistent. The Project includes a minimum of 10.71 acres of open space concentrated along the Fresno River which will ensure access to the river

Goal/Policy No.	Goal/Policy Text	Consistency Determination
		frontage.
Village E Policy 2	In conjunction with village and neighborhood planning for the village reserve at the northwest corner of Village E, a mechanism shall be established which creates a permanent agricultural buffer where the westerly edge of the Village abuts the Growth Boundary. This buffer shall average at least 400' in depth, with a minimum depth of 250', and must run continuously along westerly edge of the Village. No habitable structures are to be located within this buffer, although passive recreational opportunities (such as trails), and community gardens may be allowed. Alternative methods and designs to establish the buffer may be proposed, and including placing the buffer on either side of the Growth Boundary. Physical maintenance of the buffer shall be provided consistent with the design and function of the space.	Consistent. Consistent with Policies LU-10 and LU-11, the City envisions the establishment and maintenance of a greenbelt of agriculture around the urbanized portion of the City's planning area, outside of the Growth Boundary. Also consistent with the revised Village E Policy, land immediately west and south is agricultural with the majority being in a Williamson Act Contract, 20-year Farmland Security Zone, or within California Conservation Easements, which provide a protected agricultural buffer immediately outside the Growth Boundary.
Village E Policy 3	The westerly neighborhood of Village E generally lies west of existing conservation easements which are intended to represent the westerly limit of urban growth in this area. The City does not intend to intensify the existing pattern of rural residential lots in this area, and the extension of infrastructure to serve new development in this area is not permitted. While larger "farmable" parcel sizes outside the urban area are preferable, the existing land use pattern significantly limits commercial farming opportunities. Do to the unique conditions in this neighborhood, the City will encourage the County to limit parcel sizes to five acres or larger. In the event this area is annexed into the City, the minimum parcel size permitted by the City in this neighborhood will be five acres.	Consistent. The Project area is wholly within the Urban Growth Boundary of the City. Agricultural conservation easements currently exist to the west and south of the Project area, immediately outside of the Urban Growth Boundary.
Village E Policy 4	Individual uses proposed in proximity of the rail spur which passes through Village E shall take into consideration the circulation and noise impacts created by the rail line. The policies of	Consistent. The rail spur is located east of the Project area, near the industrial portion

Goal/Policy No.	Goal/Policy Text	Consistency Determination
	the noise ordinance addressing transportation-related noise and mitigation preferences will be applied to projects in the vicinity of the spur.	of the City, and is not in the vicinity of the Project area.

Consistency with City of Madera Municipal Code

The City's Municipal Code implements the General Plan and ensures land use compatibility by defining the specific land uses permitted in an area based on the anticipated type of use, level of activity, hours of operation, and other factors. The Municipal Code also contains development standards that help to avoid or minimize incompatibilities related to noise and aesthetics. Implementation of the Project would be subject to the provisions of the Municipal Code, which is used in conjunction with the General Plan to ensure redevelopment activities and future development is suitable and compatible with adjacent and nearby land uses, and is protective of the human health, safety, and welfare. The Precise Plan would be adopted as a planning and regulatory document that is to guide the development of the Granite Creek Plan Area. The Precise Plan must, as required by law, be consistent with the City's adopted General Plan. As a regulatory document, similar to the City's Zoning Ordinance of the City's Municipal Code, which specifies process, procedures, and measurable standards where applicable throughout the City, the proposed Precise Plan will serve as the regulatory ordinance (i.e., process, procedures, and standards) specific to only the development of the Plan Area. Upon adoption the Plan would prevail over the City's Zoning Ordinance specific to development within the Plan Area. As a governing document regulating development of the Plan Area, the Precise Plan, where applicable, will be required to be compliant with the City's Municipal Code. Consequently, no environmental impacts are anticipated beyond what is addressed in this EIR. This impact would be *less than significant*.

Consistency with the Madera Countywide ALUCP

The ALUCP contains individual compatibility plans for the Chowchilla Municipal Airport and the Madera Municipal Airport, the two public-use airports in Madera County. Under California Government Code Section 65302.3(a), general plans must be consistent with any airport land use plan adopted pursuant to Public Utilities Code Section 21675. The Madera County ALUC monitors compliance with ALUCP provisions. The Proposed Land Use Plan, included as Figure 2-4 of the Project Description of this EIR, includes appropriate land use types and densities located within the C2 and D Compatibility zones to ensure consistency with the ALUC plan, and

future development within the airport zones would be required to comply with the restrictions of the ALUC plan prior to approval both by law and per the General Plan. As a result, potential impacts related to implementation of the ALUCP would be considered *less than significant*.

Consistency with the Cortese-Knox-Hertzberg Local Government Reorganization Act.

The General Plan includes various objectives and policies to provide for the future orderly growth and development of the Planning Area. The proposed Precise Plan is located within the City's Urban Growth Boundary and partially within the City's Sphere of Influence and has been identified for future growth in the General Plan. Since the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 governs the establishment and revision of local government boundaries, implementation of the proposed Precise Plan, which requires annexation in the City prior to project approval, would provide for orderly growth to ensure that adequate services are available to serve the new development. Impacts are *less than significant*.

Consistency with the California Land Conservation Act

As discussed in Section 3.2, Agricultural Resources, the Plan Area is not subject to a Williamson Act contract, pursuant to Government Code Section 51200 et seq. Therefore, there would be no conflict with a Williamson Act Contract. This impact would be *less than significant*.

Consistency with the Madera County Local Agency Formation Commission

As identified above, the General Plan includes policies to provide for the future orderly growth and development of the Plan Area. This orderly growth would be consistent with LAFCO's objectives to encourage orderly formation of local governmental agencies, preserve agricultural land resources and to discourage urban sprawl. Policies LU-13, LU-14, and LU-17 would result in consistency with LAFCO's general policies by requiring annexation and implementation of the General Plan Building Blocks principles. Therefore, impacts would be *less than significant* and no mitigation is required.

Consistency with Madera County Transportation Commission

The MCTC is required to develop and update the RTP-SCS, and works with other agencies to implement the San Joaquin Valley Blueprint and the San Joaquin Valley Greenprint. These documents take into account development identified in the respective General Plans of jurisdictions, including the City of Madera and County of Madera. The proposed Precise Plan provides further direction for development identified in the City's General Plan. Therefore, implementation of the Project would not be in conflict with the MCTC documents. Impacts are *less than significant*.

Conclusion

As discussed above, implementation of the Project includes a General Plan Amendment that would remove the requirement to include an agricultural buffer along the western edge of the Precise Plan area. Additionally, in accordance with General Plan Policy LU-14, to ensure that a PFFP is implemented, Mitigation Measure LU-1 is included to reduce potential impacts to *less than significant*.

Mitigation Measures

- LU-1 Prior to adoption of the Precise Plan by the City, a Public Facilities Financing Plan (PFFP) shall be completed by the project applicant and approved by the Community Development Director or designee. The PFFP shall identify all infrastructure and public facilities required to support the Specific Plan area and shall identify associated costs and financing mechanisms to fund these facilities.

Cumulative Impacts

Less Than Cumulatively Considerable. The geographic area of this cumulative analysis is the area covered by the City of Madera General Plan. As discussed above, the Project does not divide an existing community. The site and surrounding areas to the east are located in a developing area planned as part of the City of Madera. It is unlikely that other projects that develop in the vicinity of the Project will cause a community to be divided because those projects would be developed according to the City's General Plan and would be subject to site-specific environmental review.

The Project, in conjunction with cumulative development in the area of the Project, would increase urbanization and result in the loss of open space and agricultural lands. Increased urbanization also increases the potential for land use conflicts, if not properly managed. Potential land use impacts require evaluation on a case-by-case basis because of the interactive effects of a specific development and its immediate environment. Other development in the area may occur, however, those projects would be developed according to the City's General Plan. As described in Table 3.10-1, the Project would be consistent with the goals and policies of the Madera General Plan. In addition, with approval of all discretionary actions, the Project would be a permitted use that would not conflict with the land use designation or zone classification for the sites. As such,

implementation of the Project would not make a cumulatively considerable contribution to any significant impact to land use and planning.

3.11 Noise

This section evaluates the potential for noise and groundborne vibration impacts resulting from implementation of the Project. This includes the potential for the Project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the Project site; exposure of people in the vicinity of the Project site to excessive noise levels, groundborne vibration, or groundborne noise levels; and whether this exposure is in excess of standards established in the local general plan or noise ordinance. The data utilized for analysis of this section is based, in part, on the *Environmental Noise Assessment – Granite Creek Precise Plan* prepared for this Project by WJV Acoustics (Appendix D). No NOP comments were received pertaining to this topic.

Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Table 3.11-1, Representative Environmental Noise Levels, illustrates representative noise levels in the environment.

**Table 3.11-1
Representative Environmental Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock Band
Jet Fly-over at 100 feet		
	—100—	
Gas Lawnmower at 3 feet		
	—90—	
		Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	—80—	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	—70—	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	—60—	
		Large Business Office
Quiet Urban Area during Daytime	—50—	Dishwasher in Next Room
Quiet Urban Area during Nighttime	—40—	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	—30—	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	—20—	
		Broadcast/Recording Studio
	—10—	
Lowest Threshold of Human Hearing	—0—	Lowest Threshold of Human Hearing
<i>Source: California Department of Transportation, Technical Noise Supplement, October 1998.</i>		

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq} – An L_{eq} , or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{max} – The maximum instantaneous noise level experienced during a given period of time.
- L_{min} – The minimum instantaneous noise level experienced during a given period of time.
- L_{dn} – The Day-Night Average Level, is a 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity

in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .

- CNEL – The Community Noise Equivalent Level is a 24-hour average L_{eq} with a 5 dBA “weighting” during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.7 dBA CNEL.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60–70 dBA range, and high above 70 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55–60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60–75 dBA) or dense urban or industrial areas (65–80 dBA).

Under controlled conditions, in an acoustics laboratory, the trained (enhanced listening abilities) healthy human ear is able to discern changes in sound levels of 1 dBA, when exposed to steady, single frequency “pure tone” signals in the mid-frequency range. Outside of such controlled conditions, the trained ear can detect changes of 2 dBA in normal environmental noise. It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation,

including grass). Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels are also generally reduced by 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.¹

Fundamentals of Environmental Groundborne Vibration

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., train operations, motor vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby, creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

The general human response to different levels of groundborne vibration velocity levels is described in Table 3.11-2, Human Response to Different Levels of Groundborne Vibration.

¹ National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.

Table 3.11-2
Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.</i>	

Environmental Setting

Study Area

The Granite Creek Precise Plan Area (Plan Area) is generally located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area consists of two (2) properties, totaling approximately 204 acres, that are bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Plan Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and partially within the Sphere of Influence (SOI) for the City of Madera. The two (2) parcels include Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026.

The Project site is currently developed with agriculture, specifically grape vines and almond trees. The Project area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. Agricultural uses lie to the south of the Project site and rural residences are immediately south of Avenue 14 ½ along the eastern portion of Project perimeter. The closest rural residence is located approximately 100 feet south of the Project perimeter.

There are no public or private airstrips within two miles of the Project site and no railways are located near the Project site. Major roads in the Project area include Road 23, Road 24, Avenue 14 ½, Cleveland Avenue, Avenue 16 and Westberry Avenue.

Regulatory Setting

Federal Regulations

Noise Standards

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project. With regard to noise exposure and workers, the Office of Safety and Health Administration (OSHA) regulations safeguard the hearing of workers exposed to occupational noise.

Vibration Standards

The Federal Transit Administration (FTA) has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in Table 3.11-3, Construction Vibration Damage Criteria.

**Table 3.11-3
Construction Vibration Damage Criteria**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.</i>	

In addition, the FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for the following three land-use categories: (1) Vibration Category 1 – High Sensitivity, (2) Vibration Category 2 – Residential, and (3) Vibration Category 3 – Institutional. The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

Under conditions where there are an infrequent number of events per day², the FTA has established thresholds of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings.

Under conditions where there are an occasional number of events per day³, the FTA has established thresholds of 65 VdB for Category 1 buildings, 75 VdB for Category 2 buildings, and 78 VdB for Category 3 buildings. No thresholds have been adopted or recommended for commercial, office, and industrial uses.

State of California Regulations

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services as shown in Table 3.11-4, California Land Use Compatibility Noise Guidelines.

The guidelines rank noise/land use compatibility in terms of “normally acceptable,” “conditionally acceptable” and “clearly unacceptable” noise levels for various land use types. Single-family homes are “normally acceptable” in exterior noise environments up to 60 CNEL and “conditionally acceptable” up to 70 CNEL. Multiple-family residential uses are “normally acceptable” up to 65 CNEL and “conditionally acceptable” up to 70 CNEL. Schools, libraries, and churches are “normally acceptable” up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

California State Building Code

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room.

² The Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006) defines “Infrequent Events” as “fewer than 30 vibration events of the same kind per day.” Page 8-3.

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed July 2025.

³ The Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006) defines “Occasional Events” as “between 30 and 70 vibration events of the same source per day.” Page 8-3.

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed July 2025.

**Table 3.11-4
California Land Use Compatibility Noise Guidelines**

Land Use Category	Community Noise Exposure (dBA CNEL)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 – 75	75 – 85
Residential – Multiple Family	50 - 65	60 - 70	70 – 75	70 – 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 – 75	72.5 – 85

Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

Madera County General Plan

The existing Madera County General Plan was adopted in October of 1995. The County's General Plan identifies the goals and policies for protecting County residents from harmful and annoying effects of exposure to excessive noise. The General Plan Policy Document describes Transportation Noise Source Policies, as well as Non-Transportation Source Policies for minimizing Noise and exposure. Acoustical Analysis requirements are outlined in Table 7.A.7 in the County's General Plan Policy Document.

City of Madera General Plan

The City of Madera's General Plan includes a Noise Element, which addresses a broad range of topics related to Noise in its many forms, and provides policies and actions to help ensure that uses sensitive to noise maintain the desired level of "quiet" that is needed for a healthy and desirable community. The following Noise-related policies are applicable to the Project.

Policy N-1 The City will protect residential areas and other noise-sensitive uses from excessive noise by doing the following:

- 1) Requiring that land uses, roadways, and other sources do not create in compatible noise levels on adjacent parcels.
- 2) Allowing homes or noise-sensitive uses to be developed only in places where existing and projected noise levels will meet the exterior noise guidelines and standards shown in Policies N-5 and N-6.
- 3) Requiring that City decisions which would cause or allow an increase in noise created by stationary or mobile sources (such as development of noise-generating land uses or the construction of new or wider roadways) be informed by a noise analysis and accompanied by noise reduction measures to keep noise at acceptable levels.

The analysis may be accomplished by reviewing available noise data, by requiring additional information on potential noise that would be created, or by a noise analysis prepared as part of the project's environmental analysis. Roadway projects which are consistent with the Circulation Map in this General Plan will generally not require the preparation of a noise analysis.

Policy N-2 To implement Policy N-1, the following shall apply:

- 1) No use regulated by the City shall be permitted to generate noise that would cause the ambient noise on any adjacent parcel to exceed the "completely compatible" 24-hour guidelines shown in Policy N-5 or 30-minute noise standards in Policy N-6.
- 2) The City shall ensure that noise mitigation to achieve a "completely compatible" 24-hour exterior noise level and conformance with the 30-minute exterior noise standard is provided in conjunction with any decision it makes that would cause a violation of item 1) above.
- 3) Developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise that exceeds the "completely compatible" guidelines in Policy N-5 shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.
- 4) The City shall ensure that transportation projects such as new or widened roadways include mitigation measures to maintain at least

“tentatively compatible” noise levels as shown in Policy N-5. Mitigation for roadway noise need not be provided where “tentatively compatible” noise guidelines would be exceeded on vacant lands, but shall be installed as part of the transportation project where the noise would affect existing homes. In those instances where noise mitigation is not initially triggered, it shall be the responsibility of the project which places residential units on the vacant lands.

Action Item N-2.1: Apply the State Noise Insulation Standards, zoning and building controls, buffers, sound barriers, traffic controls, and other effective measures to reduce exposure to noise that exceeds the standards contained in this General Plan.

Action Item N-2.2: Require acoustical studies for: 1) Significant new noise generators, or 2) New uses which are proposed to be developed in areas which do not meet the “completely compatible” exterior noise guidelines contained in Policy N-5 or Policy N-6. If information on the noise environment at a project site is not available, a measurement of the noise environment by a qualified acoustical engineer may be needed to make a determination whether a proposed project complies with the guidelines and standards in Policy N-5 or N-6.

Action Item N-2.3: Seek to obtain noise mitigation from other agencies (including the State of California) required to address the noise impacts of decisions made by those agencies (including, but not limited to, roadway widenings and railroad operations).

Policy N-3 The following definitions shall be used to interpret and implement the policies in this Noise Element.

- “Noise-Sensitive Use” is any use other than residential or commercial for which an acceptable interior or exterior noise level is defined in this General Plan or other uses as determined by the City. Generally, noise-sensitive uses will be those which require a reasonable level of quiet as part of their ordinary functioning.
- Noise standards in residential areas shall be applied to outdoor activity areas. Where the outdoor activity areas are not known, the exterior noise

standard shall be applied to all areas within 50 feet of the residential dwelling.

- “Outdoor Activity Areas” for residential uses include rear yard areas, including patios located in a rear yard; private ground-floor patios; and community play areas, pools, etc.
- “Projected Noise Levels” shall be those projected to exist at a time 20 (twenty) years in the future, based on projected future development, traffic, and other factors.
- “Residential Area” is any area designated for residential uses on the Land Use Map of this General Plan.
- “Transportation Noise” consists of noise generated by motor vehicles, trains, and aircraft takeoffs and landings.

Policy N-4 The following compatibility standards shall be used to determine whether a proposed use is appropriate for its location, given the projected ambient noise level.

- “Completely Compatible” means that the specified land use is satisfactory and both the indoor and outdoor environments are pleasant.
- “Tentatively Compatible” means that noise exposure may be of concern, but common building construction practices will make the indoor living environment acceptable, even for sleeping quarters, and outdoor activities will not be unduly disturbed by noise.
- “Normally Incompatible” means that noise exposure warrants special attention, and new construction or development should generally be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. Careful site planning or exterior barriers may be needed to make the outdoor environment tolerable.
- “Completely Incompatible” means that the noise exposure is so severe that new construction or development should generally not be undertaken.

Policy N-5 The following are the maximum 24-hour exterior noise levels for land designated by this General Plan for residential, commercial/retail, and public parks.

- See Policy N-4 for the definitions of these levels of compatibility.
- These guidelines apply to land designated by this General Plan for these uses. Residential, retail, or public parks which have been developed on land designated for other uses shall be subject to the exterior noise guidelines for the land on which they are located.
- Non-residential uses located on residentially designated land shall be subject to the exterior noise guidelines for residential lands.
- All uses on commercial lands, including non-commercial uses, shall be subject to the standards for commercial land.
- Land use designations not listed above do not have exterior noise compatibility standards. Land use designations with no exterior noise compatibility standard include office and industrial.
- Standards for public schools are set and enforced by the State of California and are not regulated by the City of Madera. Therefore, no standards for public schools are shown in Table N-B.

TABLE N-B: EXTERIOR NOISE COMPATIBILITY GUIDELINES FOR NOISE FROM ALL SOURCES, INCLUDING TRANSPORTATION NOISE (24-HOUR DAY-NIGHT AVERAGE [CNEL/Ldn])

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA
All Commercial	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	(1)
Public Parks (Lands designated as Open Space on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA

(1) No "Completely Incompatible" category is shown for commercial uses because not all commercial uses are incompatible with noisy environments. The City may determine as part of the review of individual development proposals that some types of commercial uses are incompatible with noise environments in excess of 75 dBA CNEL.

Policy N-6 The following are the City’s standards for maximum exterior non transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day.

- Where existing ambient noise levels exceed these standards, the ambient noise level shall be highest allowable noise level as measured in dBA Leq (30 minutes).
- The noise levels specified above shall be lowered by 5 dB for simple tonal noises (such as humming sounds), noises consisting primarily of speech or music, or for recurring impulsive noises (such as pile drivers, punch presses, and similar machinery). Example: the Single Family/Duplex standard from 10 p.m. to 7 a.m. for these types of noises is 45 dBA.
- The City may impose exterior noise standards which are less restrictive than those specified above, provided that: 1) The noise impact on the residential or other noise-sensitive use is addressed in an environmental analysis, 2) A finding is made by the approving body stating the reasons for accepting a higher exterior noise standard, and 3) Interior noise standards will comply with those identified in Policy N-7.

**TABLE N-C: EXTERIOR NOISE LEVEL STANDARDS
FOR NON-TRANSPORTATION NOISE, MEASURED AS dBA Leq (30 MINUTES)⁷**

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units Per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

Policy N-7 The following are the City’s standards for acceptable indoor noise levels for various types of land uses. These standards should receive special attention when projects are considered in “Tentatively Compatible” or “Normally Incompatible” areas.

- Noise created inside a use listed above shall not count toward the acceptable noise levels to be maintained in accordance with this policy.

**TABLE N-D: MAXIMUM ACCEPTABLE
INTERIOR NOISE LEVELS CREATED BY EXTERIOR NOISE SOURCES**

Land Use Type	Acceptable Noise Level (dBA Ldn or CNEL)
Residential Living and Sleeping Areas	45 dBA
Residential Living and Sleeping Areas where the dwelling unit is subject to noise from railroad tracks, aircraft overflights, or similar sources which produce clearly identifiable, discrete noise events (such as the passing of a train as opposed to relatively steady or constant noise sources such as roadways)	40 dBA
Private & Semi Private School Classrooms ⁸	55 dBA
All Places of Work Other than School Classrooms	Conform with applicable state and federal workplace safety standards

Policy N-8 Multi-Family residential uses constructed in a mixed-use setting with commercial or office uses may be exempted from exterior noise standards at the City's discretion but must meet interior noise standards as defined in Policy N-7.

Policy N-9 The City's preferences for providing noise mitigation are, in order (#1 is the most preferred, #5 the least):

- 1) Reduce noise at the source.
- 2) If #1 is not practical, seek to designate land uses which are compatible with projected noise levels.
- 3) If #1 or #2 are not practical, use distance from the source to reduce noise to acceptable levels.
- 4) If #1, #2, or #3 are not practical, use buildings, berms, or landscaping or a combination of these to reduce exterior noise to acceptable levels. Use construction techniques (sound-reducing windows, etc.) to reduce interior noise to acceptable levels.

5) The last measure which should be considered is the use of a sound wall to reduce noise to acceptable levels.

Policy N-10 Where they are constructed, sound walls should be: 1) Considered only if proven effective by accompanying noise studies. 2) Be visually attractive, complement the surroundings, and require a minimum of maintenance. (See Community Design Element references to sound wall designs). 3) As small/low as possible consistent with the need to reduce noise to acceptable levels.

Policy N-11 The City shall generally not require the installation of sound walls in front yard areas to reduce noise to acceptable levels in residential areas which were originally constructed without sound walls. The City shall emphasize other methods to reduce noise levels in these situations, and may accept exterior noise levels higher than those shown in Policy N-5 in order to minimize the construction of sound walls. Examples of “other methods” include: 9-18

- Installation of double- or triple-paned windows;
- Installation of weather stripping or seals to keep noise out;
- Replacing wooden fencing with walls or other materials with better sound reducing properties;
- Use of rubberized asphalt to reduce roadway noise.

Policy N-12 All acoustical analysis prepared pursuant to this Noise Element shall:

- 1) Be the financial responsibility of the applicant.
- 2) Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
- 3) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- 4) Estimate existing and projected cumulative (20 years) noise levels in terms of Ldn or CNEL and/or the standards in this Noise Element, and compare those levels to the policies in this Noise Element.

5) Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of this Noise Element, giving preference to proper site planning and design over mitigation measures which require the construction of noise barriers or structural modifications to buildings which contain noise-sensitive land uses.

6) In cases where a sound wall is proposed, the potential impacts associated with noise reflecting off the wall and toward other properties or sensitive uses shall be evaluated.

7) Estimate noise exposure after the prescribed mitigation measures have been implemented.

8) Describe a post-project assessment program which could be used to evaluate the effectiveness of the proposed mitigation measures.

Policy N-13 For the purposes of CEQA analysis, a 5 db increase in CNEL or Ldn noise levels shall be normally considered to be a significant increase in noise.

Policy N-14 New equipment and vehicles purchased by the City shall comply with noise level performance standards consistent with the best available noise reduction technology.

Policy N-15 The City will require that aviation easements be recorded in conjunction with the approval of development projects on properties affected by airport noise as identified in the Airport Land Use Compatibility Plan.

City of Madera Municipal Code

Chapter 11 of the City's Municipal Code (Noise Control) specifically prohibits excessive noise. The following Code sections regulate noise within the City of Madera:

Section 3-11.01 Unlawful Noise

(A) No person shall make, or cause or permit to be made or caused, upon any premises owned, occupied, possessed, or controlled by them or upon any public street, alley, or thoroughfare any unnecessary noise or sound which is physically annoying to persons of ordinary and normal sensitivity or which is so harsh or so prolonged unnatural or unusual in its use, time, and place as to cause physical discomfort, or which is injurious to the lives health, peace, and comfort of the inhabitants of the city.

- (B) The provisions of this chapter shall not be construed to apply to any public celebration, public holiday, or public occasion generally celebrated or public parades held under authorized permits; nor shall such provisions apply to any sporting event or activity conducted under the direction and supervision of any public or private school; nor shall such provisions apply to the operation of any mechanical devices used by public employees or utility companies involved in remedying a dangerous, hazardous, or unhealthful situation at any time of the day or night.

Section 3-11.02 Specific Noise Prohibitions

- (A) Operating, playing, or permitting the operation or playing of any radio, television set, loudspeaker, stereo, drum, musical instrument, or similar device which produces or reproduces sound which is in violation of the provisions of § [3-11.01](#) of this title.
- (B) *Between the hours of 8:00 p.m. and 6:00 a.m. of the following day.* Noise sources associated with operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, remodeling, paving, or grading of any real property or demolition work which creates sound which is in violation of § [3-11.01](#) of this title is prohibited. Provided, however, the Community Development Director or their designated representative may, for good cause, exempt certain construction work from the provisions of this chapter for a limited time when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed. In such circumstance, the contractor or owner shall be allowed to work after 8:00 p.m. and to operate machinery and equipment necessary until the specific work in progress can be completed in a manner which will not jeopardize the inspection or acceptance of a project or create undue financial hardships for the contractor or property owner.
- (C) *Between the hours of 10:00 p.m. and 6:00 a.m. of the following day.* Operating or permitting the operation of any mechanically powered saw, drill, grinder, lawn or garden tool, or similar tool which creates sound which is in violation of § [3-11.01](#) of this title.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, the Project would have a significant impact on noise if it would cause any of the following conditions to occur:

- 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?
- Generation of excessive groundborne vibration or groundborne noise levels?
- 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?

CEQA does not define what constitutes a substantial increase in noise levels. Some guidance is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed changes in ambient noise levels resulting from aircraft operations. The FICON recommendations are based upon studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of the DNL (or CNEL). Annoyance is a summary measure of the general adverse reaction of people to noise that results in speech interference, sleep disturbance, or interference with other daily activities.

Impacts and Mitigation Measures

Impact 3.11-1: *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less Than Significant With Mitigation. The data utilized for analysis of this section is based, in part, on the *Environmental Noise Assessment – Granite Creek Precise Plan* prepared for this Project by WJV Acoustics (Appendix D). The results of the study is summarized herein.

Background Noise Level Measurements

Existing noise levels in the Project vicinity are dominated by traffic noise along local roadways and noise associated with various agricultural land uses near and within the Project site, as well as occasional aircraft overflights. Measurements of existing ambient noise levels in the Project vicinity were conducted on March 26 & 27, 2025. Long-term (24-hour) ambient noise level measurements were conducted at three (3) locations (sites LT-1, LT-2, and LT-3). Ambient noise levels were measured for a period of 24 continuous hours at each of the three locations. Site LT-1

was located within the western portion of the Project site, along Road 23. Site LT-2 was located within the southern portion of the Project site, along Avenue 14 ½. Site LT-3 was located within the eastern portion Project site, along Road 24. All three sites were exposed to noise associated with vehicle traffic on roadways as well as periodic agricultural activities and occasional aircraft overflights. Additionally, site LT-2 was exposed to noise associated with rural residential land uses and site LT-3 was exposed to noise associated with construction activities and residential land uses. The locations of the long-term ambient noise monitoring sites are provided on Figure 3.11-1.

**Figure 3.11-1
Project Vicinity and Ambient Noise Monitoring Sites**



Measured hourly energy average noise levels (Leq) at site LT-1 ranged from a low of 54.4 dB between 2:00 a.m. and 3:00 a.m. to a high of 69.1 dB between 5:00 p.m. and 6:00 p.m. Hourly maximum (Lmax) noise levels at site LT-1 ranged from 77.9 to 93.4 dB. Residual noise levels at the monitoring site, as defined by the L90, ranged from 28.5 to 51.3 dB. The L90 is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The L90 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 Ldn value at site LT-1 was 70.0 dB Ldn.

Measured hourly energy average noise levels (Leq) at site LT-2 ranged from a low of 41.3 dB between 1:00 a.m. and 2:00 a.m. to a high of 62.4 dB between 9:00 a.m. and 10:00 a.m. Hourly maximum (Lmax) noise levels at site LT-2 ranged from 73.8 to 85.4 dB. Residual noise levels at the monitoring site, as defined by the L90, ranged from 27.2 to 44.6 dB. The measured Ldn value at site LT-2 was 61.0 dB Ldn. Figure 5 graphically depicts hourly variations in ambient noise levels at site

Measured hourly energy average noise levels (Leq) at site LT-3 ranged from a low of 33.4 dB between 2:00 a.m. and 3:00 a.m. to a high of 50.5 dB between 8:00 a.m. and 9:00 a.m. Hourly maximum (Lmax) noise levels at site LT-3 ranged from 41.8 to 78.1 dB. Residual noise levels at the monitoring site, as defined by the L90, ranged from 31.2 to 43.8 dB. The measured Ldn value at site LT-3 was 48.4 dB Ldn.

Additionally, short-term (15-minute) ambient noise level measurements were conducted at five (5) locations (Sites ST-1 through ST-5). Two (2) individual measurements were taken at each of the five short-term sites to quantify ambient noise levels in the morning and afternoon hours.

Table 3.11-5 summarizes short-term noise measurement results. The noise measurement data included energy average (Leq) maximum (Lmax) 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 L90 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.

Short-term noise measurements were conducted for 15-minute periods at each of the five sites. Sites ST-1 and ST-2 were located northeast of the Project site, in the vicinity of existing residential land uses. Site ST-3 was located southwest of the Project site, along the east side of Road 23. Site ST-4 was located south of the Project site, along the east side of Road 12 ½. Site ST-5 was located southeast of the Project site, along the west side of Road 24. Sites ST-3 through ST-5 were located in the vicinity of existing rural residential land uses. The overall noise measurement data indicate that noise in the Project vicinity is highly influenced by vehicular traffic along adjacent roadways.

**Table 3.11-5
Short Term Noise Measurement Data ⁴**

Site	Time	A-Weighted Decibels, dBA							Sources
		Leq	Lmax	L ₂	L ₈	L25	L50	L90	
ST-1	8:15 a.m.	44.4	56.2	53.8	46.4	43.1	42.6	36.7	TR, AG, L
ST-1	4:05 p.m.	48.9	68.4	59.2	50.5	44.3	41.0	39.6	TR, AC
ST-2	8:40 a.m.	44.8	56.1	51.6	48.3	42.2	40.1	39.0	TR, B, D, C
ST-2	4:30 p.m.	45.5	60.8	50.0	47.4	45.5	43.8	41.6	TR, D
ST-3	9:00 a.m.	61.4	77.8	72.3	65.1	63.8	58.2	55.6	TR, AG
ST-3	4:50 p.m.	63.3	82.4	73.0	66.4	65.0	57.7	56.0	TR, AC
ST-4	9:20 a.m.	54.3	69.4	66.2	56.2	53.0	48.7	46.4	TR, B, D
ST-4	5:10 p.m.	56.1	71.4	65.8	60.1	52.2	49.6	48.5	TR, D, L
ST-5	9:40 a.m.	57.2	74.0	70.5	61.6	54.0	46.8	45.6	TR, AG
ST-5	5:30 p.m.	55.5	71.5	67.4	58.9	52.7	45.0	44.2	TR, AC

TR: Traffic AC: Aircraft AG: Agricultural Activities C: Construction Activities B: Birds D: Barking Dogs V:Voices L: Landscaping
Activities Source: WJV Acoustics, Inc.

Noise Impacts to Off-Site Sensitive Receptors

Project Traffic Noise Impacts on Existing Noise-Sensitive Land Uses Outside Project Site

The City of Madera General Plan establishes an exterior noise level of up to 60 dB Ldn as “Completely Compatible” and an exterior noise level up to 70 dB Ldn as “Tentatively Compatible.” “Completely Compatible” means that the specified land use is satisfactory and both the indoor and outdoor environments are pleasant. “Tentatively Compatible” means that noise exposure may be of concern, but common building construction practices will make the indoor living environment acceptable, even for sleeping quarters, and outdoor activities will not be unduly disturbed by noise.

Traffic noise was modeled at thirteen (13) receptor locations. The thirteen modeled receptors are located at roadway setback distances representative of the sensitive receptors (residences) along

⁴ *Environmental Noise Assessment – Granite Creek Precise Plan (September 2025) – WJV Acoustics, page 12.*

each analyzed roadway segment. The receptor locations are provided on Figure 3-5-2. Several of these roadway segments either have existing sound walls or the residences themselves provide acoustic shielding to the individual backyards. This acoustic shielding was accounted for in the noise model, with an estimated 5dB of traffic noise attenuation provided.

**Figure 3.11-2
Modeled Traffic Noise Receptor Locations**



Table 3.11-6 provides existing traffic noise exposure levels at the thirteen analyzed representative receptor locations and provides what the Project contribution would be to existing traffic conditions.

**Table 3.11-6
Project Contribution to Future Traffic Noise – Existing Traffic Conditions⁵**

Modeled Receptor	Existing Without Project Contribution	Existing Plus Project	Project Contribution	Significant Impact?
R-1	55	57	+2	No
R-2	59	60	+1	No
R-3	41	52	+11	No
R-4	52	58	+6	No
R-5	53	58	+5	No
R-6	56	58	+2	No
R-7	59	60	+1	No
R-8	59	60	+1	No
R-9	58	58	0	No
R-10	44	45	+1	No
R-11	53	53	0	No
R-12	60	61	+1	No
R-13	56	57	+1	No

2045 Cumulative Conditions

Table 3.11-7 provides 2045 Cumulative traffic noise exposure levels at the thirteen analyzed representative receptor locations and provides what the Project contribution would be to 2045 Cumulative traffic conditions.

⁵ *Environmental Noise Assessment – Granite Creek Precise Plan* (September 2025) – WJV Acoustics, page 14. See Appendix F.

Table 3.11-7
Project Contribution to Future Traffic Noise – 2045 Cumulative Traffic Conditions⁶

Modeled Receptor	2045 Conditions Without Project Contribution	2045 Conditions Plus Project	Project Contribution	Significant Impact?
R-1	57	58	+1	No
R-2	60	61	+1	No
R-3	43	52	+9	No
R-4	54	59	+5	No
R-5	55	59	+4	No
R-6	57	59	+2	No
R-7	60	61	+1	No
R-8	60	61	+1	No
R-9	59	59	0	No
R-10	46	47	+1	No
R-11	54	54	0	No
R-12	61	62	+1	No
R-13	57	58	+1	No

⁶ *Environmental Noise Assessment – Granite Creek Precise Plan* (September 2025) – WJV Acoustics, page 15. See Appendix F.

As shown in Table 3.11-7, the Project's contribution to 2045 traffic noise exposure levels at the modeled representative receptor locations could result in noise levels exceeding 60 dB Ldn (Completely Compatible) but would not result in noise exposure levels at any sensitive receptor to exceed the 70 dB Ldn threshold (Tentatively Compatible). The highest anticipated noise exposure level would be approximately 62 dB Ldn. It is expected that construction complying with current building code would provide up to 25 dB of noise reduction from exterior noise sources. This includes requirements that exterior windows and doors must have a minimum STC 30 to STC 40 rating, which will significantly reduce sound entry. As such, with such exterior noise levels, interior noise levels would not be expected to exceed the 45 dB Ldn interior noise level standard, and as such, would not be considered a significant impact and would remain compatible with the City of Madera noise compatibility standards.

Noise Impacts From Operational On-Site Sources

The Project would include two land use designations with the potential to result in noise impacts to existing noise-sensitive (residential) land uses. These land uses include Village Mixed Use (10.06 acres) and Commercial (15.19 acres).

- **Village Mixed Use:** This category provides for a mix of uses generally corresponding to the Medium Density Residential, High Density Residential, and Commercial land use categories. This designation is to be applied in the Village Centers and implemented through standard zoning districts, specific plans, planned development, or other methods.
- **Commercial:** This is the City's retail commercial land use category. A broad range of commercial uses is allowed, including professional offices. Various zoning designations shall be used to determine the specific character of commercial development, from regional shopping centers to neighborhood stores. The maximum floor area ratio (FAR) for the Commercial designation is 0.30.

The noise level standards applicable to these proposed land uses are provided above in Table N-C (Exterior Noise Level Standards for Non-Transportation Noise). The noise standards become 5-10 dB more restrictive during nighttime hours (10:00 p.m. to 7:00 a.m.).

A wide variety of noise sources can be associated with such commercial, retail, and mixed-use land uses. The noise levels produced by such sources can also be highly variable and could potentially impact existing off-site and proposed on-site sensitive receptors. Typical examples of stationary noise sources associated with such land uses include:

- HVAC/Mechanical equipment

- Truck movements
- Parking lot activities (closing of car doors and trunks, stereos, alarms etc.)
- Drive-Through operations
- Loading Dock Activities
- Car Wash Operations
- Refuse/Cardboard Compactor

The exact quantity, type and location of such noise-producing sources were not known at the time of this analysis. These potential noise sources are discussed in general terms below.

HVAC Mechanical Equipment

It is assumed that various components of the above-described land uses would include ground- or roof-mounted HVAC units for interior spaces. WJVA has conducted reference noise level measurements at numerous commercial and retail buildings with roof-mounted HVAC units, and associated noise levels typically range between approximately 45-50 dB at a distance of 50 feet from the building façade.

Truck Movements

Truck movements and deliveries would likely be associated with these land uses. WJVA has conducted measurements of the noise levels produced by slowly moving trucks for a number of studies. Such truck movements would be expected to produce noise levels in the range of 65 to 71 dBA at a distance of 100 feet. The range in measured truck noise levels is due to differences in the size of trucks, their speed of movement and whether they have refrigeration units in operation during the pass-by.

Parking Lot Activities

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60-65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

Drive-Through Retail

The Project could include multiple retail areas that could include drive-through quick service restaurant operations. In order to assess potential noise levels associated with drive through

operations, WJVA reviewed reference noise levels measured at a Wendy's drive-through restaurant located on South Mooney Boulevard in the City of Visalia. Measurements were conducted during the early afternoon of July 11, 2011 between 12:45 p.m. and 1:45 p.m. using the previously described noise monitoring equipment. The results of this 2011 study would be considered to be a conservative estimate because of technological advances that have been made since then.

The microphone used by customers to order food and the loudspeaker used by employees to confirm orders are both integrated into a menu board that is located a few feet from the drivethrough lane at the approximate height of a typical car window. Vehicles would enter the drivethrough lane from the west and then turn to the north along the east side of the restaurant.

Reference noise measurements were obtained at a distance of approximately 40 feet from the menu board containing the microphone/loudspeaker system at an angle of about 45° toward the rear of the vehicle being served. This provided a worst-case exposure to sound from the loudspeaker system since the vehicle was not located directly between the loudspeaker and measurement location. Cars were lined up in the access lane during the noise measurement period indicating that the drive-through lane was operating at or near a peak level of activity.

Each ordering cycle was observed to take approximately 60 seconds including vehicle movements. A typical ordering cycle included 5-10 seconds of loudspeaker use with typical maximum noise levels in the range of 60-62 dBA at the 40 foot-reference location. Vehicles moving through the drive-through lane produced noise levels in the range of 55-60 dBA at the same distance. Vehicles parked at the ordering position (between the menu board and measurement site) were observed to provide significant acoustic shielding during the ordering sequence. The effects of such shielding are reflected by the noise measurement data. Noise levels were measured to approximately 60 dB Leq at the measurement site, and included noise from all sources, including the loudspeaker, vehicle movements and HVAC equipment.

Loading Dock Activities

Noise sources typically associated with loading dock activities include truck engines, the operation of truck-mounted refrigeration units, fork lifts, the banging of hand carts and roll-up doors, noise from P.A. systems, and the voices of truck drivers and store employees. Truck engines and/or refrigeration units are typically turned off while trucks are in loading dock areas to reduce noise and save energy. Based upon noise level measurements conducted by WJVA for other studies, loading dock noise levels would be expected to be in the range of approximately 60 to 75 dBA at a distance of 100 feet.

Compactor

Retail and commercial land uses often include exterior-located compactors. Based upon noise studies conducted by WJVA for other projects, the maximum noise level produced by a typical unenclosed trash compactor (Hydra-Fab Model 1200) is approximately 74 dBA at a distance of 10 feet from the equipment.

Car Wash

All auto-related uses, including car washes, are not allowed within the proposed Zone districts within the Precise Plan area.

Operational Noise Conclusion

The Project would include 10.06 acres of Village Mixed Use and 15.19 acres of Commercial Land uses, with Light Commercial zoning occurring in the Village Mixed Use land use and Neighborhood Commercial zoning occurring in the Commercial land use, in the western and southwestern portion of the Project site. Anticipated uses within these land uses may include development such as retail, services and restaurants. As detailed above, a wide variety of noise sources can be associated with mixed use and commercial land use designations.

For the Village Mixed Use and Commercial land uses, noise levels from new stationary noise sources cannot be predicted with any certainty at this time since specific uses have not yet been proposed and the locations of stationary noise sources relative to the locations of noise sensitive uses are not known. The closest existing residential land use to the Commercial land use is located approximately 600 feet to the south.

Noise levels from new stationary noise sources may be effectively reduced by incorporating noise mitigation measures into the Project design that consider the geographical relationship between the noise sources of concern and potential receptors, the noise-producing characteristics of the sources and the path of transmission between noise sources and sensitive receptors. Options for noise mitigation include the use of building setbacks, the construction of sound walls and the use of noise source equipment enclosures.

When specific uses within the study area are proposed that could result in a noise-related conflict between a commercial or other stationary noise source and existing or proposed noise-sensitive receptor, an acoustical analysis may be required that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. This will be implemented as Mitigation Measure NOI – 1. Refer to the mitigation measures at the end of this section.

Noise Impacts From Construction

Construction noise would occur at various locations within and near the Project site through the buildout period. Existing sensitive receptors could be located as close as 100 feet from construction activities. Table 3.11-8 provides typical construction-related noise levels at distances of 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. The City of Madera limits hours of construction to occur only between the hours of 6:00 a.m. to 8:00 p.m., daily. Any construction activities occurring outside of these hours would be subject to the City's stationary noise standards provided above in Table III. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment is not properly muffled or maintained.

**Table 3.11-8
Typical Construction Equipment⁷**

Type of Equipment	100 Ft.	200 Ft.	300 Ft.
Concrete Saw	84	78	74
Crane	75	69	65
Excavator	75	69	65
Front End Loader	73	67	63
Jackhammer	83	77	73
Paver	71	65	61
Pneumatic Tools	79	73	69
Dozer	76	70	66
Rollers	74	68	64
Scrapers	81	75	71

⁷ *Environmental Noise Assessment – Granite Creek Precise Plan (September 2025) – WJV Acoustics, page 19. See Appendix F.*

Type of Equipment	100 Ft.	200 Ft.	300 Ft.
Portable Generators	74	68	64
Backhoe	80	74	70
Grader	80	74	70

A noise impact could occur if construction activities do not incorporate appropriate best management practices (BMP) in regards to construction-related noise. Implementation of BMP during Project construction, as described in Mitigation Measure NOI-2 will reduce construction noise levels. Therefore, impacts from construction noise are considered less than significant with mitigation incorporation.

Noise Impacts to On-Site Sensitive Receptors

Project Traffic Noise Impacts to On-Site Receptors

The City of Madera General Plan Noise Element establishes an exterior noise level standard of 60 dB Ldn for outdoor activity areas of residential uses. An exterior noise level up to 60 dB Ldn is considered “completely compatible” and an exterior noise level up to 70 dB Ldn is considered “tentatively compatible” for residential land uses. Outdoor activity areas generally include backyards of single-family residences and individual patios or decks and common outdoor activity areas of multi-family developments. The noise element also requires that interior noise levels attributable to exterior noise sources not exceed 45 dB Ldn.

The Project would include new sensitive receptors (residential land uses) that could be impacted by traffic noise exposure adjacent to or near arterial roadways. Such roadways include Road 23 and Avenue 14 ½. WJVA used the above-described FHWA traffic noise model and traffic noise modeling assumptions to determine the distances from the center of the roadways to the 60 dB Ldn and 70 dB Ldn noise exposure contours. Table 3.11-9 provides distances from the center of each roadway to these noise exposure contours for 2045 Cumulative conditions as they represent a worst-case assessment of noise exposure at proposed sensitive receptor locations.

Table 3.11-9
Distances to Traffic Noise Contours⁸

Roadway Segment (Description)	Distance (feet) From Roadway	
	Centerline to Contour	
	60 dB L _{dn}	70 dB L _{dn}
Road 23	134	62
Avenue 14 ½	100	46

A noise impact could occur if the outdoor activity areas of proposed sensitive receptors are located within the cumulative conditions 70 dB L_{dn} traffic noise contours. If the outdoor activity areas of these residential land uses are located along these roadways within the 70 dB L_{dn} contour (as described in Table 3.11-9), an impact would be expected to occur. However, as described below, construction of sound walls will reduce impacts to a less than significant level.

Noise levels from transportation noise sources may be effectively mitigated by incorporating noise mitigation measures into the Project design that consider the geographical relationship between the noise sources of concern and potential receptors, the noise-producing characteristics of the sources and the path of transmission between noise sources and sensitive receptors. Options for noise mitigation include the use of building setbacks and the construction of sound walls.

Typically, the incorporation of sound walls (or a combination of earthen berms and sound walls) are the most effective method of mitigating transportation noise exposure. The effectiveness of a sound wall is determined by the geometric relationship between the noise source, barrier and receiver. Sound walls are most effective when they are located either close to the noise source or the receiver.

The Madera Municipal Code provides standards for the construction of block walls, within the City of Madera. Standard wall heights permitted by the City of Madera range between 6-foot to 8-foot in height. Depending on the height and geometric relationship between the roadway and the receiver location, wall of this height range would be typically expected to provide between approximately 6-7 dB of noise attenuation. While specific wall height requirements would generally be determined once final lot layout designs and elevations are known, wall heights of

⁸ *Environmental Noise Assessment – Granite Creek Precise Plan* (September 2025) – WJV Acoustics, page 21. See Appendix F.

up to 8 feet will be sufficient to mitigate traffic noise within all proposed residential land uses, to below the City's acceptable maximum allowed noise exposure levels. This will be implemented as Mitigation Measure NOI – 3. Refer to the mitigation measures at the end of this section.

Noise Impacts From Operational On-Site Sources

As described above, the Project would include two land use designations with the potential to result in noise impacts to proposed (on-site) noise-sensitive (residential) land uses. These land uses include Village Mixed Use (10.06 acres) and Commercial (15.19 acres), with Light Commercial zoning occurring in the Village Mixed Use land use and Neighborhood Commercial zoning occurring in the Commercial land use. The noise level standards applicable to these proposed land uses are provided in the Regulatory Section (Municipal Code standards for non-transportation noise sources). The noise standards become 5- 10 dB more restrictive during nighttime hours (10:00 p.m. to 7:00 a.m.)

A wide variety of noise sources can be associated with such commercial, retail, and mixed-use land uses. The noise levels produced by such sources can also be highly variable and could potentially impact existing off-site and proposed on-site sensitive receptors. Typical examples of stationary noise sources associated with such land uses include:

- HVAC/Mechanical equipment
- Truck movements
- Parking lot activities (closing of car doors and trunks, stereos, alarms etc.)
- Drive-Through operations
- Loading Dock Activities
-
- Refuse/Cardboard Compactor

The exact quantity, type and location of such noise-producing sources were not known at the time of this analysis. These potential noise sources were discussed in general terms earlier in this analysis. These same noise sources could potentially result in noise impacts at proposed (on-site) residential land uses, which would be located along the western and southwestern site boundaries. Sound walls would be constructed in accordance the Madera Municipal Code; however, when specific uses within the study area are proposed that could result in a noise-related conflict between a commercial or other stationary noise source and existing or proposed noise-sensitive receptor, an acoustical analysis may be required that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the

City's noise standards. This will be implemented as Mitigation Measure NOI – 1. Refer to the mitigation measures at the end of this section.

Commercial Zone (Impacts to On-Site Receptors)

The Project would include high-density residential land uses proposed adjacent to the Neighborhood Commercial and Light Commercial Zone. A wide variety of noise sources can be associated with commercial land use designations. The noise levels produced by such sources can also be highly variable and could potentially impact proposed on-site sensitive receptors. From the perspective of the City's noise standards, noise sources not associated with transportation sources are considered stationary noise sources. Typical examples of stationary noise sources include:

- Fans and blowers
- HVAC units
- Truck deliveries
- Compactors
- Amplified Drive-through Menu Board Speakers

Noise levels from new stationary noise sources within the Neighborhood Commercial and Light Commercial Zone cannot be predicted with any certainty at this time since specific uses have not yet been proposed and the locations of stationary noise sources relative to the locations of new noise sensitive uses are not known. However, under some circumstances, there is a potential for such uses to exceed the City's noise standards for stationary noise sources at the locations of sensitive receptors.

Noise levels from new stationary noise sources may be effectively mitigated by incorporating noise mitigation measures into the Project design that consider the geographical relationship between the noise sources of concern and potential receptors, the noise-producing characteristics of the sources and the path of transmission between noise sources and sensitive receptors. Options for noise mitigation include the use of building setbacks, the construction of sound walls and the use of noise source equipment enclosures.

When specific uses within the study area are proposed (and their locations are defined) that could result in a noise-related conflict between a commercial or other stationary noise source and Project proposed sensitive receptors, an acoustical analysis may be required that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. This will be implemented as Mitigation Measure NOI – 1. Refer to the mitigation measures at the end of this section.

Noise Impacts From Proposed School Land Uses

Sources of operational noise associated with school land uses could include mechanical equipment (trash compactors, HVAC, etc.), vehicle and bus movements and noise associated with general school activities (children at play). There is one proposed school site within the overall Project site footprint.

Per City of Madera Municipal Code section 3-11.01 (Unlawful noise), noise levels associated with school activities are exempt from City of Madera noise standards. The municipal code states “...nor shall such provisions apply to any sporting event or activity conducted under the direction and supervision of any public or private school...” however, there are potentially significant noise impacts associated with buses and school-related vehicle areas (such as parking lots and loading areas), as described below.

School Bus and Vehicle Movements

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, type of vehicles, and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice. For slowly moving heavy trucks and buses, it is typical to generate a maximum noise level (Lmax) of approximately 70-75 dB at 50 feet.

Impact Determination

As described herein, the Project could, without mitigation, result in the generation of a substantial temporary (during construction) or permanent (operational) increase in ambient noise levels in the vicinity of the Project, or exceed standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, with implementation of mitigation measures NOI – 1 through NOI –3, impacts are reduced to a *less than significant*.

Mitigation Measures

NOI - 1: Prior to issuance of building permits for development or redevelopment of future existing structures within the Light Commercial or Neighborhood Commercial Zones, the City of Madera will require a detailed acoustical study to be prepared by a certified professional to document potential impacts to onsite and offsite

noise-sensitive land uses (as determined by the City of Madera's General Plan and Municipal Code thresholds) as follows: When specific uses within the Light Commercial or Neighborhood Commercial Zones are proposed that could result in a potential noise-related conflict between a commercial or other stationary noise source and existing or proposed noise-sensitive receptor, an acoustical analysis shall be required by the City of Madera that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. When the study indicates that potential impacts will be in exceedance of the City of Madera's standards, projects shall be required to incorporate mitigation such as increased setbacks, sound walls, equipment enclosures, site design, and enhanced building materials to quantifiably reduce impacts to levels below the City of Madera standards. Development that cannot incorporate mitigation to reduce impacts to acceptable City of Madera standards shall not be approved. Evidence of compliance with this mitigation measure shall be provided to the City of Madera prior to issuance of building permits.

NOI – 2: The following best management practices shall be applied during all Project construction and shall be required by the City as conditions of approval for the construction of all development projects:

- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas at the greatest possible distances from any noise-sensitive land uses.
- Ensure that all general construction related activities are restricted to between the hours of 6:00 a.m. and 8:00 p.m., consistent with the City's Noise Ordinance
- Designate a "disturbance coordinator" at the City, at the expense of the Project contractor, who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g.,

starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

NOI - 3: For Project components involving new sensitive receptors (residential land uses) within the cumulative 70 dB Ldn noise contours of adjacent roadway segments, the City of Madera shall require construction of block walls to achieve noise attenuation to below the City's noise thresholds. The City of Madera Municipal Code provides standards for the construction of block walls, within the City of Madera. Standard wall heights permitted by the City of Madera range between 6-foot to 8-foot in height. Depending on the height and geometric relationship between the roadway and the receiver location, walls of this height range would be typically expected to provide between approximately 6-7 dB of noise attenuation. While specific wall height requirements would generally be determined once final lot layout designs and elevations are known, wall heights of up to 8 feet will be sufficient to mitigate traffic noise within all proposed residential land uses, to below the City's acceptable maximum noise exposure levels allowed. Evidence of compliance with this mitigation measure shall be provided to the City of Madera prior to issuance of building permits.

Impact 3.11-2: *Generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant. The dominant sources of man-made vibration are sonic booms, blasting, pile driving, heavy demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the 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 (if they were to occur). Typical vibration levels at distances of 100 feet and 300 feet are summarized by Table 3.11-10. These levels would not be expected to exceed any significant threshold levels for annoyance or damage, as provided in Appendix D.

Table 3.11-10
Typical Vibration Levels During Construction⁹

Equipment	PPV (in/sec)	
	@ 100'	@ 300'
Bulldozer (Large)	0.011	0.006
Bulldozer (Small)	0.0004	0.00019
Loaded Truck	0.01	0.005
Jackhammer	0.005	0.002
Vibratory Roller	0.03	0.013
Caisson Drilling	0.01	0.006

After full Project build out, it is not expected that ongoing operational activities will result in any significant vibration impacts at nearby sensitive uses. Activities involved in trash bin collection could result in minor on-site vibrations as the bin is placed back onto the ground. Such vibrations would not be expected to be felt at the closest off-site sensitive uses. Any impacts would be *less than significant*.

Mitigation Measures

None are required.

Impact 3.11-3: *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?*

Less Than Significant. The Project site is located approximately 1.25 miles south of Madera Municipal Airport. According to the Madera Countywide Airport Land Use Compatibility Plan (ALUCP), the Project site lies within the D Zone (Other Airport Environs), and the noise impact is described as “low” within the ALUCP for D Zoned areas. The ALUCP also states “Within Compatibility Zones C2 and D, the Density of new residential development is not limited.”¹⁰

Section 3.3.1(a) of the ALUCP states “The maximum CNEL considered normally acceptable for residential uses in the vicinity of the Airport is 60 dB.” The Project site is located outside of the Madera

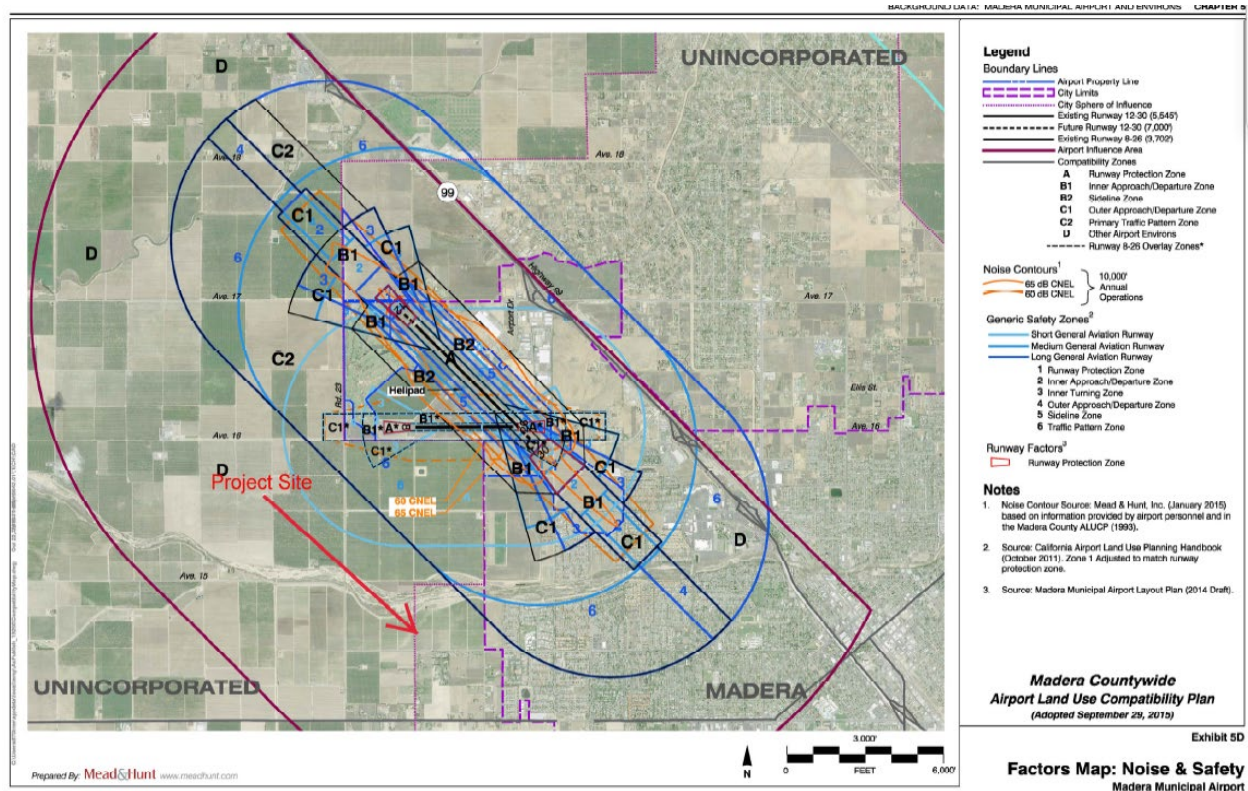
⁹ Environmental Noise Assessment – Granite Creek Precise Plan (September 2025) – WJV Acoustics, page 20. See Appendix F.

¹⁰ Environmental Noise Assessment – Granite Creek Precise Plan (September 2025) – WJV Acoustics, page 23. See Appendix F.

Municipal Airport 60 dB CNEL contour¹¹ and would not expose people residing or working in the Project area to excessive airport-related noise levels.

Figure 3.11-3

Madera Municipal Airport Noise Contours



As shown in Figure 3.11-3, the Project is situated outside of the 60 dB and 65dB noise contour lines. As such, noise levels at the proposed residential land uses will not exceed the City's 60dB Ldn noise standard because of airport uses.

Therefore, there is a *less than significant impact*.

Mitigation Measures

None are required.

¹¹ Ibid.

Cumulative Impacts

Less Than Cumulatively Considerable. Construction of the individual development projects allowed under the land use designations of the City of Madera's and County of Madera's General Plans may result in the generation of site-specific noise increases from stationary noise sources, and may contribute incrementally to noise from mobile sources. Due to the localized nature of noise impacts, cumulative impacts would be largely limited to areas within the general vicinity of the Project, which is generally considered 1,000 feet. As shown in Section 3.11-1, the Project will result in less than significant impacts pertaining to increases in ambient noise levels (with implementation of Mitigation Measures NOI – 1 through NOI – 4) at both the project and cumulative level.

The Project's temporary construction activities, in combination with the construction of other reasonably foreseeable projects in the area, could result in increased short-term construction noise levels in the Project area (depending upon the specific timing of the construction of those other projects and proximity to the Project site). Construction activities associated with other projects in proximity to the Project site could occur at the same time as the Project. However, other projects would also be required to adhere to all City noise-related construction regulations, which would reduce and minimize cumulative construction noise level. Additionally, Mitigation Measure NOI-2 would further reduce Project-related construction noise levels and cumulative impacts would be less than significant.

Cumulative construction may also result in the exposure of people to or the generation of excessive groundborne vibration. The same receptors as identified for construction noise would be the closest to be impacted by the Project with respect to construction related vibration as well. Due to these distances, and the rapid attenuation of groundborne vibration, the Project and any nearby other project would not be in close enough proximity to the sensitive receptors such that any sensitive receptor would be exposed to substantial groundborne vibration levels, since there are no significant vibration-producing construction activities (such as pile driving). Therefore, cumulative impact in terms of groundborne vibration would be less than significant.

As indicated herein, the Project will not result in significant permanent (operational) increases in noise or vibration levels. In addition, while temporary construction noise does not constitute a significant impact either at the project-level or cumulative level, construction noise mitigation is included to ensure impacts are less than significant. Therefore, with implementation of NOI-1 through NOI-4, the Project's incremental contribution to cumulative noise impacts would be *less than cumulatively considerable*.

3.12 Population and Housing

This section of the DEIR evaluates the potential environmental effects related to population and housing associated with implementation of the Project. No comments pertaining to population and housing were received during the NOP public review period.

Environmental Setting

The Project site totals approximately 204 acres, generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Project site consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. The Project is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and partially within the Sphere of Influence (SOI) for the City of Madera. The Project site is currently designated 'Village Reserve' by the City's General Plan, but the Project applicant is requesting a General Plan Amendment to change the land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses.

The proposed density, intensity, acreage, and realistic maximum development potential (housing units or square footage) of the Project are summarized in Table 3.12-1. Build out of the Granite Creek Plan Area is limited to a maximum of 1,542 residential dwelling units and approximately 612,235 square feet over approximately 204 acres. Proposed development beyond these limitations may require additional environmental review. The number of residents at full build out is estimated at 5,119 based on an average household size of 3.32. Nearly 60% of the Project area is planned for residential uses, followed by 40% planned for employment uses including commercial and mixed use, and the remaining for public institutional (K-8 School Site), open space, and roadways.

Table 3.12-1
Project Buildout Assumptions

Land Use Designation	Zoning Designation	Total Acreage	Maximum Dwelling Units per Gross Acre or Maximum Non-Residential Floor Area Ratio	Maximum Development Potential
Residential Land Use Designations				
Low Density Residential	P-D (4500)	105.44	2.1 – 7.0 dwelling units	738 units
Medium Density Residential	P-D (3000)	35.35	7.1 – 15.0 dwelling units	530 units
High Density Residential	Residential	Low Density Residential	PD (6000), PD (4500) (City)	274 units

Land Use Designation	Zoning Designation	Total Acreage	Maximum Dwelling Units per Gross Acre or Maximum Non-Residential Floor Area Ratio	Maximum Development Potential
Employment Land Use Designations				
Village Mixed Use (VMU)	C-1 (Light Commercial)	10.06	0.5 Maximum Non-Residential FAR	219,106 square feet
Commercial (C)	C-N (Neighborhood Commercial)	15.19	0.3 Maximum Non-Residential FAR	198,503 square feet
Public and Semi-Public Land Use Designations				
Other Public and Semi-Public	PF (Public Facilities)	22.34	0.2 (Assumed Maximum FAR)	194,626 square feet
Open Space	RCO (Resource Conservation and Open Space)	9.74	0.2 (Assumed Maximum FAR)	84,854 square feet
TOTAL		203.60	--	1,542 units 612,235 square feet

Currently, there are no plans for the development of the remaining 123 acres of land proposed to be annexed. However, entitlements for this project will include a General Plan Amendment for approximately 210 acres and Pre-Zoning of all 327 acres. This includes the establishment of a 20-acre K-8 school site and an 8.8-acre dual use basin for water retention and recreational purposes.

The Project site is located in a developing area of Madera. The site is approximately 0.7 miles west of Lincoln Elementary School, which is located at 650 Liberty Lane. Lincoln Elementary is part of Madera Unified School District, which serves 20,000 students.¹ In addition, the Granite Creek Precise Plan site intends to build an elementary school in the vicinity in the future. The surrounding area consists of single family and rural residential developments, and vacant or agricultural land.

Population

The population of City of Madera was estimated to be 67,064 in 2025.²

¹ Lincoln Elementary School, Madera Unified School District. <https://lincoln.maderausd.org/>. Accessed February 2026.

² Madera County Growth and Development Forecast, 2025 to 2050. Table A-22. https://www.maderactc.org/sites/default/files/fileattachments/transportation/page/6714/mctc_growth_and_development_forecast.pdf. Accessed February 2026.

Housing Units

According to the City's Housing Element, the City of Madera had a total of 18,713 housing units (as of 2020) of which 14,211 are single-family units, 4,291 are multi-family units, and 211 are mobile homes.³

Regulatory Setting

Federal Regulations

US Department of Housing and Urban Development (HUD)

HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality, affordable rental homes; utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business.⁴

State of California Regulations

California Department of Housing and Community Development (HCD)

The State of California and California Department of Housing and Community Development (HCD) is dedicated to the preservation and expansion of safe, stable and affordable housing so more Californians have a place to call home. HCD works to ensure an adequate supply of housing for Californians and promotes the growth of strong communities through its leadership, policy, and program development.⁵ Since 1969, California has required that all local governments (cities and counties) adequately plan to meet the housing needs of everyone in the community. California's local governments meet this requirement by adopting housing plans as part of their "general plan" (also required by the state). General plans serve as the local government's "blueprint" for how the city and/or county will grow and develop and include seven mandatory elements: land use, circulation, conservation, noise, open space, safety, and housing. The law

³ City of Madera Housing Element, 6th Cycle Housing Plan. Housing Needs Assessment, page 51.

<https://www.madera.gov/media/klalm2g3/madera-housing-element-hcd-draft-2-11-24-2025-1.pdf>. Accessed February 2026.

⁴ U.S. Department of Housing and Urban Development, Mission, <http://portal.hud.gov/hudportal/HUD?src=/about/mission>. Accessed February 2025.

⁵ California Department of Housing and Community Development, About HCD. <https://www.hcd.ca.gov/about-hcd>. Accessed February 2026.

mandating that housing be included as an element of each jurisdiction's general plan is known as "housing-element law" and the document is called "Housing Element."

State Housing Law also mandates that local governments identify existing and future housing needs in a Regional Housing Needs Assessment (RHNA).

California Relocation Assistance Act

The State of California adopted the California Relocation Assistance Act (*California Government Code* §7260 et seq.) in 1970. This State law, which follows the federal Uniform Relocation Assistance and Real Property Acquisition Act, requires public agencies to provide procedural protections and benefits when they displace businesses, homeowners, and tenants in the process of implementing public programs and projects. This State law calls for fair, uniform, and equitable treatment of all affected persons through the provision of relocation benefits and assistance to minimize the hardship of displacement on the affected persons.

Local Regulations

Madera County General Plan

Madera County encourages new residential development in suitable locations that meet the projected needs of all economic segments of the community. Development of vacant or underutilized sites in strategic locations focuses new construction within and near existing communities, which encourages growth in proximity to commercial businesses, jobs, and community services.

City of Madera General Plan

The following lists policies and implementation actions from the City of Madera General Plan pertaining to urban growth and development that are applicable to the Project.

- LU-10:** The Growth Boundary is considered by the City to define the physical limits of development in Madera. The City shall direct all future growth in Madera and in the unincorporated area outside the city limits to occur inside the Growth Boundary shown on the Land Use Map in this General Plan. Within the City's Planning Area, the City encourages the County to assist the City in maintaining an agricultural green belt around the Growth Boundary by only allowing agricultural uses where land is designated for such use on the City's General Plan Land Use Map.

The following apply to the Growth Boundary:

- The Growth Boundary may only be revised as part of a comprehensive update of the General Plan involving, at a minimum, the Land Use and Circulation elements.
- Any revision to the Growth Boundary shall be accompanied by a statement of findings which demonstrate the following:
 - 1) That the revision is consistent with the intent of the Growth Boundary and all other applicable policies in this General Plan
 - 2) That the revision is necessary to accommodate planned growth in Madera

LU-11: The City specifically envisions the establishment and maintenance of a greenbelt of agricultural and other open space lands around the urbanized portion of the Planning Area, outside the Growth Boundary, as shown on the Land Use Map. In addition to the maintenance of appropriate agricultural land use designations, the City encourages the use of Williamson Act contracts and similar mechanisms to ensure the maintenance of the greenbelt. Along the west edge of the Planning Area, the Greenbelt is intended to be permanent, and the implementing mechanisms on the west edge should reflect that intent, including transfer of development rights, permanent conservation easements, etc. (See specific policies for Villages D & E for requirements to establish a permanent edge/buffer on the western boundary of these Villages).

LU-13: The City shall support the annexation of property to its boundaries for the purpose of new development only when it determines that the following conditions exist:

- 1) Sufficient public infrastructure, facilities, and services are available or will be provided in conjunction with new development; and
- 2) Demands on public infrastructure, facilities and services created by the new development will not result in reductions in capacity that is necessary to serve the existing city limits (including demand created by infill development), reductions in existing service levels within the city limits, or the creation of detrimental fiscal impacts on the City.

Housing Element

The City of Madera's 2024-2032 6th Cycle Housing Element has been prepared in compliance with State of California housing element law. This Housing Element sets forth the City's overall housing objectives in the form of goals, policies, and programs. The goals, policies, and programs are consistent with the direction of the City's other General Plan elements, specifically the Land Use Element, Health and Safety Element, and the Sustainability Element.

The Housing Element goals, policies, and programs aim to:

- Encourage the development of a variety of housing opportunities and provide adequate sites to meet the 2024 – 2032 Regional Housing Needs Allocation (RHNA).
- Assist in the development of housing to meet the needs of lower- and moderate-income households.
- Address and, where appropriate and legally possible, remove governmental constraints to housing development.
- Conserve, preserve, and improve the condition of the existing affordable housing stock.
- Promote equal housing opportunities for all residents to reside in the housing of their choice. These objectives are required by and delineated in State law (California Code Section 65583 [c][1]).

As determined by HCD, the RHNA for all of Madera County over the 2024-2032 planning period is 12,243 units. The City of Madera was assigned a RHNA of 5,910 total units.⁶ The allocation is equivalent to a yearly need of approximately 739 housing units for the 8-year time period.

Housing Element Policies

Policy 1.1 The City shall ensure continued availability of suitable sites for construction of a variety of housing.

⁶ City of Madera Housing Element, 6th Cycle Housing Plan. Housing Needs Assessment, page 32.

<https://www.madera.gov/media/klalm2g3/madera-housing-element-hcd-draft-2-11-24-2025-1.pdf>. Accessed February 2026.

- Policy 1.3** The City shall encourage developers/builders to develop their projects at the maximum density allowed under the General Plan land use designations and zoning provisions.
- Policy 1.4** The City shall promote the use of energy conservation measures in residential units to conserve energy and reduce household utility costs.
- Policy 1.5** The City shall improve the jobs/housing balance through the development of housing in proximity to jobs and both in proximity to public transportation. The City shall increase the supply of affordable housing and support efforts to match job income and housing affordability levels.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- *Induce substantial unplanned population growth in an area, either directly or indirectly?*
- *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Impacts and Mitigation Measures

Impact 3.12-1: *Induce substantial unplanned population growth in an area, either directly or indirectly or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Less Than Significant Impact. Project implementation will increase the area's population and housing stock by facilitating the development of up to 1,542 new households within the City of Madera. The number of residents at full build out is estimated at 5,119 based on an average household size of 3.32 (1,542 housing units X 3.32 persons per household = 5,119 persons).

Population

For purposes of evaluating the environmental impact of population growth in Madera under CEQA, the question becomes whether or not the Project will induce population beyond what the City has or will plan for and/or can accommodate at full buildout of the Project. The assessment takes into account Project-related impacts to topics like traffic, water supply, public services (police, fire, etc.), sewer / storm drain capacity, and other related topics, as the City has prepared infrastructure Master Plans based on buildout of the City's General Plan.

The Madera County Growth and Development Forecast estimated the 2025 population of City of Madera to be 67,064.⁷ The City's General Plan EIR states, "While the growth rate has slowed in recent years, the City's population growth rate since 2000 has been 3.5 percent annually, while the population of the Planning Area outside the city grew by 2.2 percent annually. By comparison, the average annual population growth rate of California was 1.5 percent during the same time. In addition, the population within the current city limits (2008) is projected to grow to approximately 68,088 by 2030, which is an increase of 20 percent over the city's 2008 population. The General Plan Planning Area outside the current city limits is estimated to have a population of 113,721 by 2030, which is an increase of 425 percent over the Planning Area's 2008 population. It should be noted that the majority of the population increase which will occur outside the current city limits is expected to occur in conjunction with urban development projects, which will trigger new annexations and expansions to the City's boundaries."

Table 3.12-2 shows the City's existing population, the increase in population from the Project, and the City's General Plan projected population in Year 2030, assuming full buildout of the General Plan. The last column shows the population difference between the 2030 projected population and the existing plus Project population.

**Table 3.12-2
Population Estimates**

Existing Population (2025)	Proposed Project Population	Existing Plus Project Population	City of Madera 2030 Projected Population	Population difference between the 2030 Projected Population and the Existing Plus Project
67,064	5,119	72,183	68,088	4,095

Implementation of the Project could facilitate population growth in the area, beyond the expected scope of the City's Planning Documents. However, implementation of the policies and associated programs included in the City's General Plan and other supporting documents would assist in managing growth and infill development such that development would occur in an orderly manner. See the Land Use Policies and Housing Element Policies mentioned above. The City's

⁷ Madera County Growth and Development Forecast, 2025 to 2050. Table A-22: Forecast for Total Population by Subarea; Madera County; 2025 to 2050.

https://www.maderact.org/sites/default/files/fileattachments/transportation/page/6714/mctc_growth_and_development_forecast.pdf. Accessed February 2026.

EIR acknowledges and expects that most of the previously discussed population increase will occur outside City Limits. This increase in growth requires new annexations and expansion of the City's boundaries, which will occur in tandem with urban development such as the Project.

Housing Units

According to the City's most recently adopted Housing Element, 6th Cycle Housing Plan, the City of Madera had a total of 18,713 housing units (as of 2020) of which 14,211 are single-family units, 4,291 are multi-family units, and 211 are mobile homes.⁸ Housing needs in Madera are determined by the California Department of Housing and Community Development (HCD) who developed a Regional Housing Needs Allocation (RHNA) for the City. According to the City's Housing Element, Madera had an allocated need of 6,099 units for the 2016-2024 planning period.⁹ The allocation is equivalent to a yearly need of approximately 762 housing units over the 8-year period. As of December 2021, there were 2,162 units that were permitted during the 5th Cycle. There was a remaining need of 1,194 very low-income units, 326 low-income units, 484 moderate-income units, and 1,933 above moderate-income units. The total remaining requirement was 3,937 units.¹⁰

The Project would develop up to 1,542 residential units at full buildout. Table 3.12-3 shows the number of units in the City (per City's Housing Element - Year 2020), the number of units proposed by the Project, and the potential number of future units based on buildout of the City's General Plan. The last column shows the additional number of housing units that will be included with full buildout of the Project.

**Table 3.12-3
Residential Units**

Existing Units (2020)	Project Number of Units	Existing Plus Project Number of Units	Potential Number of Units in the City at Full Buildout of the General Plan*
18,713	1,542	20,255	20,508*

⁸ City of Madera Housing Element, 6th Cycle Housing Plan. Page 51. <https://www.madera.gov/media/klalm2g3/madera-housing-element-hcd-draft-2-11-24-2025-1.pdf>. Accessed February 2026.

⁹ Ibid, page 7.

¹⁰ Ibid.

** This figure is based on the City's projected 2030 population of 68,088 divided by 3.32 (the City's average household size per unit), which equals approximately 20,508 units.*

Based on the City's General Plan projections, the Project would not exceed the projected number of housing units (20,508) at full build-out of the City's General Plan (2030). However, the Project would aid the City in meeting its RHNA allocation, which as of the 6th Cycle RHNA (2024 – 2032) showed that the City needs approximately 5,910 units to meet the allocation for various housing categories. The Project contains a mixture of low density, medium density and high density residential homes which will assist the City in meeting some of its Housing Element goals and requirements.

Determination

As shown in the tables above, the anticipated population and housing unit increase associated with the Project is outside the growth projections of the City's 2030 General Plan.

Growth in and around the City of Madera area would occur regardless of implementation of the General Plan. While growth from the Project would exceed current projections, growth would not be unplanned since it is within the General Plan Planning Area and contemplated by the current General Plan Environmental Impact Report. As described in the General Plan, the Project site is included in Village E (Village Reserve Planning Area E) which was developed with extensive community input, keeping in mind the State's planning and housing priorities. The General Plan details how a Village should be organized, which includes a mix of residential dwelling types, including single-family areas in Neighborhoods and multi-family development near the center and strategically dispersed in single-family areas. Goals for Village E include preserving the Fresno River as an amenity, utilizing park facilities to function as a gathering place for surrounding neighborhoods, and creating commercial venues at central locations to increase shopping opportunities within walking and biking distance to a large area. Implementation of the associated General Plan Land Use and Housing Element policies will ensure that development occurs with minimal impact on existing infrastructure and services. The included infrastructure improvements later described (See Chapter 3.16, Utilities) would ensure that adequate public services and facilities were maintained under the anticipated development of the Project.

The City's General Plan EIR acknowledges and expects that most of the previously discussed population increase will occur outside City Limits. This increase in growth requires new annexations and expansion of the City's boundaries, which will occur in tandem with urban

development such as the Project. By implementing the General Plan policies designed for orderly growth, as mandated by the state, the Project would not result in substantial impacts related to population and economic growth. While other future residential developments are also likely to occur in the City, it is anticipated that the City can accommodate the Project and other residential developments in the City. The General Plan anticipated a population of up to 68,088 people by 2030 with a current population of 67,064. The City's current housing stock is 18,713 units and the City needs an additional 5,910 units to meet RHNA requirements. The Project would assist in accommodating the City of Madera's 2024 - 2032 Regional Housing Needs Allocation according to the City's current Housing Element.

Based on the City's General Plan, infrastructure master planning documents, and the City's Housing Element, it is determined that the Project will not induce unplanned population growth beyond that which can be accommodated by the City. It has been determined that the City has adequate capacity to grow to sustainably serve the Project and therefore, the Project will have a *less than significant* impact occurring from inducement of unplanned population.

Mitigation Measures:

None are required.

Impact 3.12-2: *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The Project site currently contains grapevines and almond trees and contains no housing or structures. Thus, the Project would not displace existing housing or people. There is *no impact*.

Mitigation Measures:

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. The Project would result in population growth in an area currently designated for agricultural uses. Growth will also occur in other areas of the City and unincorporated communities in Madera County in areas surrounding the City. However, as

noted above, it is anticipated that the City can accommodate to grow with the Project and other residential developments in the City. The General Plan anticipated a population of up to 68,088 people by 2030 with a current population of 67,064. The City's current housing stock is 18,713 units and the City needs an additional 3,937 units to meet RHNA requirements. The Project would accommodate the City of Madera's 2016-2024 Regional Housing Needs Allocation according to the City's current Housing Element.

The Project in conjunction with the current and reasonably foreseeable projects would lead to what is anticipated population growth. The City of Madera, Madera County, and other incorporated and unincorporated jurisdictions are required by State law to use the General Plan process, the CEQA process, as well as other planning processes, such as utility master plans, to plan for and control future growth. The Project will result in an increase in population and housing units above what was planned for in the City's General Plan, however, by implementing the General Plan policies designed for orderly growth, as mandated by the state, the Project would not result in substantial impacts related to population and economic growth. There would not be a cumulative impact associated with unplanned growth adversely affecting population and housing. As a result, the Project would *not contribute to a significant cumulative impact*.

Mitigation Measures

None are required.

3.13 Public Services

This section of the DEIR identifies potential impacts associated with the City's police and fire protection services, school facilities, and other public facilities. No NOP comment letters were received pertaining to this topic.

Environmental Setting

Fire Protection

The Madera City Fire Department (MFD) is a dynamic organization dedicated to protecting the community through a comprehensive range of emergency response services. Through a strategic partnership with the California Department of Forestry and Fire Protection (CAL FIRE), the MFD delivers comprehensive emergency and life-safety services. While personnel are managed by CAL FIRE, the Madera City Council retains local policy oversight to ensure all operations remain aligned with the community's specific priorities. Operating three fire stations, the Department is equipped with 25 sworn positions, including 24 suppression personnel and one administrative battalion chief. The frontline apparatus, including both engines and the truck company, are consistently staffed by three-person professional crews.¹

Fire protection services in the vicinity of the Project site are provided by the City of Madera Fire Department, Station #57, located at 200 S. Schoor Avenue, approximately 1.8 miles southeast of the Project site. The Department plans to expand their resources and infrastructure to meet the needs of the residential and industrial growth of the City, with the goal being to maintain optimal response times and service excellence for all Madera's citizens.

Police Services

Law enforcement services in the City of Madera are provided by the Madera Police Department. According to the Department's 2024 Annual Report², the City's Police Department consists of 34 professional staff employees and 74 sworn officers. Classifications of these employees range from sworn police personnel, community service officers, parking enforcement officers, communications operators, records specialists, administrative support personnel, crime lab technicians, property and evidence technicians, and civilian investigators. The Department

¹ City of Madera Fire Department. <https://www.madera.gov/emergency-protective-services/fire-department/>. Accessed February 2026.

² Madera Police Department 2024 Annual Report. <https://www.madera.gov/emergency-protective-services/police-department/policies-reports/>. Accessed February 2026.

covers 20 square miles and the City is divided into four beats. The Police Department is located at 330 S. C Street, approximately 3.0 miles east of the Project site.

Schools

Madera Unified School District (MUSD) provides public education from Kindergarten through 12th Grade in the City of Madera and nearby rural areas. The District includes 19 elementary schools, three middle schools, three high schools, and four alternative education schools.³ As of 2009, when the General Plan EIR was adopted, MUSD had a combined enrollment of 18,643 students and 881.5 full-time equivalent teachers, resulting in a pupil-to-teacher ratio of 21:1. The district had 2,093 classes with an average class size of 24.0 students. This was slightly less than the county average class size of 24.1 and also less than the state average class size of 25.2. The Project site is approximately 0.7 miles west of Lincoln Elementary School.

The applicant has requested to pre-zone approximately 22.34 acres of land of the total 203.6 acres to Public and Semi-Public for the purpose of developing a K-8 school site in the future. See Chapter Two – Project Description.

Parks

The City of Madera manages several types of parks and recreational facilities. The Parks and Community Services Department team supervises and maintains area parks, the municipal golf course, and other local landscape. The City also coordinates a wide variety of recreation and leisure services for both youth and adults. According to the City's General Plan, there are more than 320 acres of parks and recreation areas within the City limits.

There are no public parks on or adjacent to the Project site. The closest park to the proposed site is the Lions Town & Country Park, located approximately 1.6 miles to the southeast. The proposed TSM includes a 1.19-acre out lot which will be developed as a park; however, 9.74 acres of the Granite Creek Precise Plan area will be designated as Open Space and zoned RCO (Resource Conservation and Open Space).

Libraries

There are no public libraries in the vicinity of the Project site. The nearest public library is the Madera Main Library, located approximately 2.7 miles east of the Project site, at 121 N. G Street.

³ Madera Unified School District – *Our Schools*. <https://www.maderausd.org/schools/>. Accessed February 2026.

Regulatory Setting

Federal Regulations

There are no federal regulations pertaining to public services that apply to the Project.

State of California Regulations

California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8 Sections 1270 “Fire Prevention” and 6773 “Fire Protection and Fire Equipment,” the California Occupational Safety and Health Administration (Cal- OSHA) has established minimum standards for fire suppression and emergency medical services (EMS). The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

City Emergency Response/Evacuation Plans

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

California Fire Code

The California Fire Code (CFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The CFC also contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards, fire protection and notification systems,

fire protection devices such as extinguishers, smoke alarms, high-rise buildings, childcare facility standards, and fire suppression training.

Government and Education Codes (Funding for Schools)

Funding for schools and school facilities impacts is outlined in Education Code Section 17620 and Government Code Section 65995 et. seq., which governs 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.”

Local Regulations

City of Madera General Plan

General Public Services Policies:

- CI-44** Public facilities should be phased in a logical manner which avoids “leapfrog” development and encourages the orderly development of roadways, water and sewer, and other public facilities. The City shall not provide public financing or assistance for projects that do not comply with City master plans.
- CI-47** All major development projects shall identify the size and cost of all infrastructure and public facilities and identify how the installation and long-term maintenance of infrastructure will be financed consistent with the policies in this General Plan.
- CI-49** Except when prohibited by state law, the City shall require that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.
- CI-50** All new residential development shall be required to annex into City of Madera Community Facilities District 2005-01, or any subsequent CFD created in its place. The purpose of the CFD is to collect special assessments from new residential development to offset the cost of providing eligible municipal services to that development.

Fire Hazard Policies:

- HS - 33** The City shall ensure the safety and protection of Madera and its community members by providing adequate first response capabilities to emergencies and by maintaining sufficient resources to expand protection as the community grows.

Safety Services and Emergency Response Policies:

- HS-36** The City will maintain and enhance community safety through coordinated regional emergency, law-enforcement and protective services systems.

Schools Policies:

- SUS-1** The City shall assist the Madera Unified School District in obtaining mitigation for the impacts of new development on school facilities.

- SUS-2** The City shall work with the Madera Unified School District to coordinate the planning of future land use and school facilities and will encourage the District to identify school site locations and routes that are safe for children to walk or bike to school (also known as “Safe Routes to School”).

Action Item SUS-2.1: Work with the Madera Unified School District to help the District identify and plan for the construction of all road, sidewalk, and other infrastructure improvements needed for new schools, and that these improvements are in place at the time the school opens.

Parks and Recreation Policies:

- PR-1** The City shall develop and maintain a complete system of public parks distributed throughout the City that provides opportunities for passive and active recreation at a minimum of 3 (three) acres per 1,000 (one thousand) residents.

- PR-4** The City shall acquire, develop, and maintain parks and recreation facilities in accordance with the City’s Park and Recreation Master Plan, and with the City’s Park Classifications and the Park and Recreation Facility Service Level Standards. All lands offered for dedication must be of size, orientation, location, and suitability to provide park and recreation facilities consistent with this General Plan and the Park and Recreation Master Plan.

- PR-5** Parks and other facilities will be accepted into the City’s system at the City’s sole discretion. Land which is proposed to be dedicated to the City will not be accepted if it does not meet the requirements of this Element and/or the Park and Recreation Master Plan.

- PR-7** The development of parks in newly developing areas of the City where development triggers the need for a new park(s) shall be phased and/or timed so that the standards of this Element and the Parks and Recreation Master Plan are

met or exceeded at all times. In no case shall parks in a new development be phased or timed in such a way that insufficient park or other facilities are provided either permanently or temporarily. The City recognizes that this may require the development of parks or other facilities larger than will be needed at the time in order to ensure that standards will be maintained as future residential development occurs.

- PR-10** The City shall require new residential development projects, including mixed-use projects with residential components, to dedicate land and/or pay in-lieu fees to contribute to the acquisition and development of parks or recreation facilities. The determination of which method (land dedication and/or payment of in-lieu fees) is appropriate shall be made at the City's sole discretion.

Action Item PR-10.1: Evaluate and implement, if adopted, a Park Impact and Parkland Dedication Ordinance consistent with the Quimby Act.

- PR-14** The City will collaborate with public and private agencies to jointly plan, develop, and manage a regional park in the Planning Area.
- PR-15** The City shall ensure that the design and location of parks and trails reflect that active living and walkability are important to Madera's quality of life.
- PR-16** The City shall improve access and connectivity to parks through provision of sidewalks, bike paths, bike lanes, and bridges where appropriate.
- PR-18** The City shall expand its system of multi-use paths and trails available for transportation and recreation uses to achieve a service level of 0.5 linear miles of trails per 1,000 residents.
- PR-20** The City shall ensure that new parks provide adequate and secure onsite and offsite parking as identified in the Parks and Recreation Master Plan.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item as follows.

- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically

altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

Impacts and Mitigation Measures

Impact 3.15-1: *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

Less Than Significant. Implementation of the Project is limited to a maximum of 1,542 residential dwelling units and approximately 612,235 square feet over approximately 204 acres. Nearly 60% of the Project area is planned for residential uses, followed by 40% planned for employment uses including commercial and mixed use, and the remaining for public institutional (K-8 School Site), open space, and roadways. If approved and annexed into the City, the City would provide public services to the Project. Impacts to public services are largely determined by the potential new population from the Project that would require access to these services. Project implementation will have a direct, growth inducing impact on the area's population and housing stock by facilitating the development of up to 1,542 new households within the City of Madera. The

number of residents at full build out is estimated at 5,119 based on an average household size of 3.32 (1,542 housing units X 3.32 persons per household = 5,119 persons). The Madera County Growth and Development Forecast estimated the 2025 population of City of Madera to be 67,064.⁴ Table 3.13-1 shows the City's existing population, the increase in population from the Project, and the City's General Plan projected population in Year 2030, assuming full buildout of the General Plan.

**Table 3.13-1
Population Estimates**

Existing Population (2025)	Project Population	Existing Plus Project Population	General Plan 2030 Projected Population
67,064	5,119	72,183	68,088

Potential impacts to public services are discussed individually by topic below.

Fire Protection

Fire protection services would be required to serve the Project. As previously described, the City of Madera provides firefighting response services through the MFD. The nearest fire station to the Project site is Station #57, located at 200 S. Schoor Avenue, approximately 1.8 miles southeast of the Project site.

According to the City's General Plan EIR, the ISO Public Protection Classification Program, created by the Insurance Services Office, Inc., grades a community's fire protection on a scale of 1 to 10, based on ISO's Fire Suppression Rating Schedule with 1 being the highest rating possible. According to Stan Craig of the Madera City Fire Department, the City's current ISO rating is 4.

The Fire Department is currently in the process of studying fire protection service delivery for the city. A goal of that project is to establish standards for City Council adoption. The Fire Department is currently using National Fire Protection Association (NFPA) 1710 standards of response for urban areas with populations exceeding 1,000 per square mile as a planning guide. These guidelines

⁴ Madera County Growth and Development Forecast, 2025 to 2050. Table A-22: Forecast for Total Population by Subarea; Madera County; 2025 to 2050.

https://www.maderact.org/sites/default/files/fileattachments/transportation/page/6714/mctc_growth_and_development_forecast.pdf. Accessed February 2026.

call for a first response to the emergency scene within 7 minutes of the receipt of the call for service. The Madera City Fire Department's average time, from receipt of alarm to arrival of the first unit, is 6.56 minutes.

Operating three fire stations, the Department funds 25 sworn positions, including 24 suppression personnel and one administrative battalion chief. The frontline apparatus, including both engines and the truck company, are consistently staffed by three-person professional crews.⁵ In order to maintain existing levels of fire protection, the MFD will need to increase its resources to serve the Project and the surrounding areas. If significant buildout occurs prior to the addition of the necessary facilities, the potential exists for simultaneous multiple calls for service, which could result in a need to prioritize calls, resulting in delays and increased response times. The Project may require additional staffing to accommodate the Project.

All development proposed within the Plan Area will be reviewed by the MFD and the City of Madera to ensure that the Project meets or exceeds local and state standards for fire-related components such as adequate emergency access, location of fire hydrants, adequate defensible space around the site, use of fire-retardant materials, etc. In addition, the Project will be required to pay fire service impact fees from new development based on projected impacts from the development. This fee will be determined by the City prior to issuance of building permits. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the Project, would fund capital and labor costs associated with fire protection services. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Thus, with payment of impact fees, the impact to fire services is less than significant.

The Project does not trigger the need for a new fire station or expansion of existing facilities at this time. It is anticipated that the existing Fire Station #57, located at 200 S. Schoor Avenue, approximately 1.8 miles southeast of the Project site, can maintain the MFD's current response times and can adequately serve the Project. Any future development of a fire station will require environmental review when it is proposed, and the environmental review will determine if there will be an adverse physical impact associated with its construction pursuant to CEQA. A new fire station is not proposed at this time, and the Project would not directly result in the need for the

⁵ City of Madera Fire Department. <https://www.madera.gov/emergency-protective-services/fire-department/>. Accessed February 2026.

construction of new fire facilities; thus, the Project will have a less than significant impact relative to construction of new fire protection facilities.

Police Protection

Police protection services would be required to serve the Project. As previously described, the MPD provides police services for the City. The Police Department is located at 330 S. C Street, approximately 3.0 miles east of the Project site.

The City's General Plan EIR states that average response time for all calls is 15.9 minutes, while the average response time for high priority emergency calls is approximately 4 minutes. These response times can vary based on the time of day. According to the Department's 2024 Annual Report,⁶ their full-service law enforcement agency consists of 34 professional staff employees and 74 sworn officers. Classifications of these employees range from sworn police personnel, community service officers, parking enforcement officers, communications operators, records specialists, administrative support personnel, crime lab technicians, property and evidence technicians, and civilian investigators. In order to maintain adequate levels of service, the MPD will need to consider the typical nature and type of calls for service; crime prevention and safety; appropriate measures for determining adequate levels of service; and the requirements for additional facilities and staffing. Additional staff may be required at full buildout.

All future development proposed within the Plan Area will be reviewed by the MPD and the City of Madera to ensure that the Project meets or exceeds local and state standards for police-related services. In addition, the Project will be required to pay police service impact fees from new development based on projected impacts from the development. This fee will be determined by the City prior to issuance of building permits. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the Project, would fund capital and labor costs associated with police protection services. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Thus, with payment of impact fees, the impact to police services is less than significant.

The Project does not trigger the need for a new police station or expansion of existing facilities at this time. It is anticipated that the Police Department, located at 330 S. C Street, approximately 3.0 miles east of the Project site, can maintain the MPD's current response times and can

⁶ Madera Police Department 2024 Annual Report. <https://www.madera.gov/emergency-protective-services/police-department/policies-reports/>. Accessed February 2026.

adequately serve the Project. Any future development of a police station will require environmental review when it is proposed, and the environmental review will determine if there will be an adverse physical impact associated with its construction pursuant to CEQA. A new police station is not proposed at this time, and the Project would not directly result in the need for the construction of new police facilities; thus, the Project will have a less than significant impact relative to construction of new police protection facilities.

Schools

The Project will include up to 1,542 dwelling units at full buildout for a population increase of approximately 5,119 people. The General Plan EIR contains the most current (2008) student generation factors used by MUSD, as shown in Table 3.13-2.

**Table 3.13-2
Madera Unified School District Student Generation Factors**

Grade	Single-Family	Multi-Family
K-6	0.431	0.325
7-8	0.1012	0.081
9-12	0.198	0.145
Total	0.751	0.551

The Project features several different types of housing for a total of up to 1,542 residential units at buildout which is broken down as follows:

- Low Density Residential: 738 Units
- Medium Density Residential: 530 Units
- High Density 274 Units

Based on the ratios identified in Table 3.15-2, the Project would generate approximately 982 students. See Table 3.13-3 for the breakdown of the number of students, assuming Low Density land use will be single-family homes and Medium and High Density land uses will be multi-family homes.

**Table 3.13-3
Project's Anticipated Number of New Students**

Grade	Household Type			
	<i>Single Family (738 units)</i>	<i>Number of Students</i>	<i>Multi Family (804 units)</i>	<i>Number of Students</i>
TK-6	0.431	318	0.325	261
7-8	0.1012	75	0.081	65
9-12	0.198	146	0.145	117
SF Student Subtotal:		539	MF Student Subtotal:	443
Total Projected New Students:				982

Funding for schools and school facilities impacts is outlined in Education Code Section 17620 and Government Code Section 65995 et. seq., which governs 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.”

The Project will be required to pay impact fees from new development based on the Developer Fee rates that are in place at the time payment is due. The payment amount is determined by the School District and the State Allocation Board who sets the maximum per-square-foot Level 1 school impact fees every two (even) years at its January meeting. Payment of the applicable impact fees by the Project applicant would fund capital and labor costs associated with providing school services to the Project. The Project will be required to pay the school impact fee as a condition of approval. The impact fee amount will be the amount established by the School District and the State Allocation Board in place at the time of submittal of building permit applications. Thus, with payment of impact fees, the impact to schools and school facilities is less than significant.

Parks

The City's General Plan *Policy PR-1* states that the City of Madera implements a minimum standard of 3.0 acres of parkland per 1,000 residents. Project implementation will have a direct, growth inducing impact on the area's population by facilitating the development of up to 1,542 new households within the City of Madera. The number of residents at full build out is estimated

at 5,119 based on an average household size of 3.32 (1,542 housing units X 3.32 persons per household = 5,119 persons).

The Project could have a total population of 5,119 persons at build-out which would equate to a need for a minimum of 15.36 acres of parkland based on the City's standard of three acres per 1,000 residents (5,119 divided by 1,000 and multiplied by 3.0).

The creation of new parks / recreational facilities within the City is done both at the individual project level (where park facilities are constructed as part of a project) and at the City-wide level (where impact fees fund the development of larger community parks). According to the City's General Plan, the City would require approximately 191 acres of new parkland City-wide to accommodate buildout of the City's General Plan (estimated total population of about 170,431 at full buildout of the entire Planning Area), if the municipal golf course is included. The City currently has 320 acres of parkland including the municipal golf course and 140 acres excluding the municipal golf course.

The proposed TSM has designated a 1.19-acre outlot for development as a park area within the site. Approximately 9.74 acres of the entire Granite Creek Precise Plan area will be designated as Open Space and zoned RCO (Resource Conservation and Open Space). The Project will also be subject to payment of impact fees to support buildout of park land as identified in the City's General Plan. The applicant's payment of park development impact fees to the City of Madera would support future recreational facilities throughout the City that are consistent with the City's planned recreational projects and therefore would not result in environmental impacts from construction. These future planned projects will assist the City in meeting its requirement of 3.0 acres of park/recreational space per 1,000 residents. The park development impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications, pursuant to Madera Municipal Code Section 10-2.1308. Therefore, with payment of these impact fees and construction of 1.19 acres park/recreational facilities on the TSM site, the Project will provide sufficient park and recreational facilities per the City's requirements and will not significantly increase the demand on existing parks and recreation facilities beyond what is planned for in the City's General Plan.

Other Public Facilities

Development of the Project will increase the demand for other public services such as libraries, governmental services, emergency services and health services. However, the increase in demand will not in and of itself require construction of additional facilities. As described in Section 3.13 – Population and Housing, the anticipated population and housing unit increase associated with the Project is within the growth projections of the City's General Plan. Based on the City's General

Plan and infrastructure master planning documents, it is determined that the Project will not induce unplanned population growth beyond that which can be accommodated by these other public services.

Therefore, with payment of impact fees, the Project will have a *less than significant impact* on public services.

Mitigation Measures

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to public services is generally area-specific rather than cumulative in nature because each project site has different considerations that would be subject to review. The service area for the City of Madera services is considered the cumulative analysis area. Cumulative growth that would occur over the life of the Madera General Plan / EIR will result in increased demand for public services. As the demand for public services increases, there will likely be a need to increase staffing and equipment in order to maintain acceptable performance standards. Cumulative impacts to public services are primarily related to other development projects that could occur during the same time frame as those considered for this Project and within the same vicinity as this Project. Because the Project will be required to construct and/or pay fair share fees for public services and does not result in significant long-term impacts to public services, the Project's incremental contribution to cumulative impacts to public services would be *less than cumulatively considerable*.

3.14 Recreation

This section of the DEIR identifies potential impacts associated with the Project on the City's recreational facilities and services. NOP comment letters were received pertaining to this topic.

Environmental Setting

The Parks and Recreation Element of the City's General Plan establishes goals and policies that plan for the existing and future parks and recreation needs of the community. This Chapter of the General Plan works in concert with the Parks and Recreation Master Plan (adopted separately) to identify existing facilities and programs, assess how they are used, identify where additional park facilities and/or programs are needed, and provide guidelines to best meet these needs. Both documents serve as a framework of goals and policies to assure efficient stewardship of the City's parks and public spaces, recreation facilities, and natural resources.¹ According to the City's General Plan, there are more than 320 acres of parks and recreation areas within the City limits. The City's parks range from large community parks such as the Lions Town & Country Community Park, which totals approximately 50.36 acres, to neighborhood parks such as the Centennial Neighborhood park, which totals approximately 3.53 acres, to trails such as the Vern McCullough Fresno River Trails, which totals approximately 12.45 acres. The City also manages a number of Special Use Facilities, Pocket Parks and Linear Parks. Madera's current inventory of parks and recreation facilities is listed in Table PR-A, page 11-4, of the General Plan.²

According to the City's General Plan (2009), the City would require approximately 191 acres of new parkland City-wide to accommodate buildout of the City's General Plan (estimated total population of about 170,431 at full buildout of the entire Planning Area), if the municipal golf course is included.

The closest park to the proposed site is the Lions Town & Country Park, located approximately 1.6 miles to the southeast. The Project's TSM includes a 1.19-acre out lot which will be developed as a park; however, 9.74 acres of the Granite Creek Precise Plan area will be designated as Open Space and zoned RCO (Resource Conservation and Open Space). Refer to Chapter Two- Project Description.

Project Site

¹ City of Madera General Plan, October 2009. Chapter 11: Parks and Recreation Element. Page 11-2.
<https://www.madera.gov/media/5iifxhqp/city-of-madera-gp-12-04-20.pdf>. Accessed February 2026.

² Ibid, page 11-4.

The Project consists of two (2) properties that total approximately 204 acres, generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision in unincorporated Madera County. The Project site consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. The Project is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The Project site is currently designated 'Village Reserve' by the City's General Plan, but the Project applicant is requesting a General Plan Amendment to change the land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses. The site is generally flat and is at an elevation of approximately 238-250 feet above mean sea level.³ This region can be characterized as a dry open valley bottom currently utilized for agriculture.

Regulatory Setting

State of California Regulations

Quimby Act

The Quimby Act (California Government Code Section 66477) states in part that "[t]he legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map[.]" Requirements of the Quimby Act apply only to the acquisition of new parkland and do not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act seeks to preserve open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreation facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development.

Local Regulations

City of Madera General Plan

Parks and Recreation Policies:

³ Biological Resource Evaluation for the Madera Granite Hills Precise Plan Project. Prepared by Colibri Ecological Consulting December 2024. Appendix D. Page 17.

- PR-1** The City shall develop and maintain a complete system of public parks distributed throughout the City that provides opportunities for passive and active recreation at a minimum of 3 (three) acres per 1,000 (one thousand) residents.
- PR-4** The City shall acquire, develop, and maintain parks and recreation facilities in accordance with the City's Park and Recreation Master Plan, and with the City's Park Classifications and the Park and Recreation Facility Service Level Standards. All lands offered for dedication must be of size, orientation, location, and suitability to provide park and recreation facilities consistent with this General Plan and the Park and Recreation Master Plan.
- PR-5** Parks and other facilities will be accepted into the City's system at the City's sole discretion. Land which is proposed to be dedicated to the City will not be accepted if it does not meet the requirements of this Element and/or the Park and Recreation Master Plan.
- PR-7** The development of parks in newly developing areas of the City where development triggers the need for a new park(s) shall be phased and/or timed so that the standards of this Element and the Parks and Recreation Master Plan are met or exceeded at all times. In no case shall parks in a new development be phased or timed in such a way that insufficient park or other facilities are provided either permanently or temporarily. The City recognizes that this may require the development of parks or other facilities larger than will be needed at the time in order to ensure that standards will be maintained as future residential development occurs.
- PR-10** The City shall require new residential development projects, including mixed-use projects with residential components, to dedicate land and/or pay in-lieu fees to contribute to the acquisition and development of parks or recreation facilities. The determination of which method (land dedication and/or payment of in-lieu fees) is appropriate shall be made at the City's sole discretion.
- Action Item PR-10.1:* Evaluate and implement, if adopted, a Park Impact and Parkland Dedication Ordinance consistent with the Quimby Act.
- PR-14** The City will collaborate with public and private agencies to jointly plan, develop, and manage a regional park in the Planning Area.
- PR-15** The City shall ensure that the design and location of parks and trails reflect that active living and walkability are important to Madera's quality of life.

- PR-16** The City shall improve access and connectivity to parks through provision of sidewalks, bike paths, bike lanes, and bridges where appropriate.
- PR-18** The City shall expand its system of multi-use paths and trails available for transportation and recreation uses to achieve a service level of 0.5 linear miles of trails per 1,000 residents.
- PR-20** The City shall ensure that new parks provide adequate and secure onsite and offsite parking as identified in the Parks and Recreation Master Plan.

City of Madera Municipal Code

§ 10-2.1303 Park Acreage Standard

It is hereby found and determined that the public interest, convenience, health, welfare, and safety require that a minimum of three acres of property for each 1,000 persons residing within this city be devoted to local parks and recreational purposes. Said three acres are justified by the existing ratio of 2.202* acres of parks per 1,000 residents in the city, and the current maximum utilization of said acreage by the residents of Madera.

* $66,082 \text{ residents} / 145.52 \text{ acres of parks} = 454.109 \text{ residents per acre.}$

$1,000 \text{ residents} / 454.109 \text{ residents per acre} = 2.202 \text{ acres per thousand residents.}$

§ 10-2.1308 Park Development Impact Fees

(A) A fee shall be paid for park development by the developer of each new dwelling unit irrespective of whether the developer is required to dedicate land as set forth in § 10-2.1304 and/or pay fees in lieu of land dedication as set forth in § 10-2.1306.

(B) The park development impact fee shall be established at the rate set forth by a resolution of the City Council.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Guidelines Appendix G.

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

- 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?

Impacts and Mitigation Measures

Impact 3.16-1: *Would the project increase the use of exiting neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated OR does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Less Than Significant Impact. The City's General Plan *Policy PR-1* states that the City of Madera implements a minimum standard of 3.0 acres of parkland per 1,000 residents. Project implementation will have a direct, growth inducing impact on the area's population by facilitating the development of up to 1,542 new households within the City of Madera. The number of residents at full build out is estimated at 5,119 based on an average household size of 3.32 (1,542 housing units X 3.32 persons per household = 5,119 persons).

The Project could have a total population of 5,119 persons at build-out which would equate to a need for a minimum of 25.6 acres of parkland based on the City's standard of three acres per 1,000 residents (5,119 divided by 1,000 and multiplied by 3.0).

The creation of new parks / recreational facilities within the City is done both at the individual project level (where park facilities are constructed as part of a project) and at the City-wide level (where impact fees fund the development of larger community parks). According to the City's General Plan, the City would require approximately 191 acres of new parkland City-wide to accommodate buildout of the City's General Plan (estimated total population of about 170,431 at full buildout of the entire Planning Area), if the municipal golf course is included. The City currently has 320 acres of parkland including the municipal golf course and 140 acres excluding the municipal golf course.

As previously indicated in Section 3.12 – Population and Housing, the Project is within the population growth assumptions of the City's General Plan. Thus, the Project will not result in growth that would require additional park land beyond what was identified in the City's General Plan.

The proposed TSM has designated a 1.19-acre outlot for development as a park area within the site. Approximately 9.74 acres of the entire Granite Creek Precise Plan area will be designated as Open Space and zoned RCO (Resource Conservation and Open Space) as explained in Chapter 2 – Project Description. The Project will also be subject to payment of impact fees to support

buildout of park land as identified in the City's General Plan. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications.

Determination

The environmental impacts associated with construction and operation of the proposed future parks and recreational facilities included in the Project are included within the environmental evaluation within this EIR. For instance, Section 3.15– Transportation provides the traffic analysis associated with parks/recreation, Section 3.3– Air Quality included air calculations associated with parks/recreation, etc. The impact determinations that were made within each environmental topic of this EIR also apply to construction/operation of the proposed parks and recreational facilities, since these components are part of the overall Project.

As discussed herein, the Project could have a total population of 5,119 persons at build-out which would equate to a need for a minimum of 25.6 acres of parkland based on the City's standard of three acres per 1,000 residents (5,119 divided by 1,000 and multiplied by 3.0). The proposed TSM has designated a 1.19-acre outlot for development as a park area within the site. Approximately 9.74 acres of the entire Granite Creek Precise Plan area will be designated as Open Space and zoned RCO (Resource Conservation and Open Space). The applicant's payment of park development impact fees to the City of Madera would support future recreational facilities throughout the City that are consistent with the City's planned recreational projects and therefore would not result in environmental impacts from construction. These future planned projects will assist the City in meeting its requirement of 3.0 acres of park/recreational space per 1,000 residents. The park development impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications, pursuant to Madera Municipal Code Section 10-2.1308. Therefore, with payment of these impact fees and construction of 1.19 acres park/recreational facilities on the TSM site, the Project will provide sufficient park and recreational facilities per the City's requirements and will not significantly increase the demand on existing parks and recreation facilities. Therefore, the impacts to recreation are *less than significant*.

Mitigation Measures:

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to recreational facilities is generally area-specific rather than cumulative in nature because each project site has different recreational considerations that would be subject to review. As described above, Project implementation would not result in an increased demand for recreational facilities, the deterioration of existing facilities, or the construction or expansion of recreational facilities. The Project's incremental contribution to cumulative recreation impacts would be *less than cumulatively considerable*.

3.15 Transportation/Traffic

This section of the DEIR identifies potential impacts of the Project pertaining to transportation and traffic in and around the Project vicinity. The analysis presented in this EIR section is based, in part, on the Vehicle Miles Traveled Technical Memo prepared for the Project by Ruetters & Schuler Civil Engineers, which is included as Appendix G. No NOP comments were received pertaining to this topic.

Environmental Setting

The Granite Creek Plan Area (Plan Area) is generally located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area consists of two (2) properties, totaling approximately 204 acres, that are generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Plan Area is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The two (2) parcels include Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. The Project site is currently developed with agriculture, specifically grape vines and almond trees.

Area Roadways

Road 23 is an arterial that extends north from Avenue 5 and intersects Avenue 14 1/2 approximately one-half mile south of the Fresno River, near the Project site where it functions as the westernmost boundary. Road 23 crosses the Fresno River by way of an existing two-lane bridge. This roadway provides north-south access to residential and agricultural land uses. It is considered a "loop road" by the City of Madera and connects to State Road 99 at its northern most point, via Avenue 18 1/2. The loop roads are intended to provide easy intra-city travel by providing links along the perimeter to the city to the Freeway 99 corridor.

Road 24 is a north-south arterial located approximately one mile east of Road 23 and bounds the eastern edge of the Project area. It does not cross the Fresno River and extends as far south as the San Joaquin River. It operates as a two-lane roadway and also intersects Avenue 14 1/2 approximately one-half mile south of the Fresno River. It provides access to residential and agricultural land uses.

Avenue 14 1/2 is an east-west roadway that intersects Road 23 and Road 24 and serves as the southernmost boundary of the Project area. It operates as a two-lane roadway which transitions

into Sunset Avenue east of the Road 24 intersection. It provides access to primarily agricultural land uses.

Cleveland Avenue is a two-lane east-west arterial located approximately 0.75 north of the Project area, between Road 23 and Westberry Boulevard. It operates as a two-lane divided arterial between Westberry Boulevard and Granada Drive, a four-lane arterial between Granada Drive and Schnoor Avenue, and a four-lane arterial with auxiliary lanes between Schnoor Avenue and SR 99. Cleveland Avenue is a two-lane arterial between Country Club Drive and SR 145. The SR 99 / Cleveland Avenue interchange is a Type L-2 spread diamond configuration.

Avenue 16 is a two-lane east-west arterial located approximately 1.5 miles north of the Project site, between Road 23 and Road 24. It operates as a two-lane arterial from Condor Drive to SR 99. Avenue 16 (Kennedy Street) is discontinuous between Road 24 and Condor Drive. The SR 99 / Avenue 16 (Kennedy Street) interchange is a Type L-7 configuration with loop on-ramps in the northwest quadrant and a Type L-8 configuration with off-ramps in the northeast quadrant.

Westberry Boulevard is located approximately 0.5 miles east of the Project site, and operates as a two-lane north-south arterial connecting adjacent neighborhoods to SR 99 via east-west roadways such as Cleveland Avenue, Sunset Avenue, and Howard Road.

Bicycle Facilities

The Madera County 2004 Regional Bicycle Transportation Plan identifies the existing and planned bikeways in the City of Madera. The Transportation Plan also summarizes recommended bikeway standards, potential funding sources, and prioritized list future improvements. The City of Madera's bikeway systems is comprised of Class I bike paths, Class II bike lanes, and Class III bike routes, which are defined as below:

- Class I Bike Path – Off-street bikeways contained in a separate right-of-way designated for the exclusive use of bicycles and pedestrians.
- Class II Bike Lane – On-street bikeways within the paved roadway designated for the exclusive or semi-exclusive use of bicycles by pavement markings and signage. Class II bike routes provide connectivity between bikeways.
- Class III Bike Route – On-street bikeways that share the road with motorized vehicles.

Class I bike paths are currently located along the Fresno River from Tulare Street to just west of Granada Drive. Class II bike lanes are currently located along portions of Cleveland Avenue, Sunset Avenue, and Almond Avenue. Class III bike routes are currently located along portions

of Lake Street, Stadium Road, and Sunset Avenue. Many of the planned Class II Bike Lanes and several of the Class I Bike Paths have not yet been implemented. Additional facilities will be added as funds become available, and as opportunities arise in conjunction with the related street improvements.

Both Class I (bike path) and Class II (bike lane) bikeways are proposed in the Plan Area. Class I bikeways are proposed along Avenue 14-1/2 and Riverview Drive (east-west), connecting to the adjacent Riverstone Community, and along Avenue 12 (partial), Road 38, Road 39, and Road 23 (north-south). Additional Class I bikeways will be included around the proposed dual use basin/park located north of Avenue 14-1/2 at Road 23-1/4. Class II bikeways are proposed along all Road 23 and Road 23-1/2. A Class II bikeway will also be developed between Roads 23 and Road 23-1/2 for further connectivity from residential uses to the proposed mixed-use areas.

Pedestrian Facilities

Pedestrian facilities in the City of Madera are comprised of paths, sidewalks, and pedestrian crossings. Although pedestrian sidewalks are provided in many parts of the City, some areas lack sidewalks, while other pedestrian connections are discontinuous. The Project includes a network of bicycle and pedestrian facilities to link park and open space areas.

Transit System

The following three bus services operate within the City:

- Madera Metro provides fixed route service within the City limits.
- Jobs, Education, and Training (JET) Express provides express bus service between the Intermodal Center and Madera State Center Community College.
- Madera Dial-A-Ride (DAR) provides demand responsive paratransit. The Madera DAR provides door-to-door transportation for the elderly and disabled passengers.

The Unmet Transit Needs Within Madera County Notice of 2008-09 Findings (MCTC 2008) identified that following needs were voiced by the public constituted unmet needs but were not determined as reasonable to meet at this time.

- Expansion of transit services to regions outside the City, such as to the Madera State Center Community College.
- Extension of DAR operating hours on the weekends and evenings.

In January 2009, the City initiated the JET Express service to provide a quick and direct transit service to the Madera State Center Community College.

Madera County operates the Madera County Connection which provides intra-city bus service between the Cities and unincorporated portions of the County. Existing fixed-route bus is described below.

Fixed-Route Bus Service

Madera Metro fixed-route bus service consists of four routes with a unique color system.

- Purple Line (Route 1) – services inbound to Madera County Department of Corrections and outbound to Walgreens on Cleveland Avenue.
- Orange Line (Route 2) – services inbound to Rancho San Miguel and outbound to Walgreens on Cleveland Avenue.
- Green Line (Route 3) – services inbound to Madera Community College and outbound to Walgreens on Cleveland Avenue.
- Blue Line (Route 4) – services inbound to the Amtrak station and outbound to Walgreens on Cleveland Avenue.

Weekday services runs between 7:00 AM and 6:30 PM and while Saturday services only run on the Purple and Orange lines between 9:00 AM and 4:45 PM.

JET Express service fixed-route bus service operates three daily round trips on two routes between the Madera Intermodal Center and the Madera Center campus of the State Center Community College District. Weekday service operates between the hours of 6:45 AM and 6:45 PM. Specific Routes are described below.

- JET Express West - Operates three times daily leaving the Intermodal Center at 6:45 AM, 11:45 and arriving at the Madera Center campus of the State Center Community College District within one hour of departure.

JET Express East - Operates three times daily leaving the Intermodal Center at 6:45 AM, 11:45 and arriving at the Madera Center campus of the State Center Community College District within one hour of departure. The closest route to the Plan Area is the Orange Line that travels north-south along North Granada Drive, approximately 1-mile east of the easternmost point of the Plan Area. Future transit services including the location of bus stops, shelters, turnouts, and park-and-ride facilities within the Plan Area will be coordinated with Madera Metro.

Airports

The Madera Municipal Airport (MAE) is the closest airport to the Project site, approximately 1.7 miles north. The MAE is owned and operated by the City of Madera. The airport is located approximately three miles northwest of Downtown to the west of SR 99 between Avenue 17 and Avenue 16.

Regulatory Setting

Federal Regulations

Several federal regulations govern transportation issues. They include:

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
- 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

State of California Regulations

California Department of Transportation

The California State Department of Transportation (Caltrans) has jurisdiction over state highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on California highways. The City of Madera and Madera County are under the jurisdiction of Caltrans District 6. The following Caltrans regulations apply to the potential transportation impacts of the Project:

- California Vehicle Code, Division 15, Chapters 1 through 5 (Size, Weight, and Load). Includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.
- California Street and Highway Code, Sections 660-711, 670-695. Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery, includes regulations for the care and protection of state and county highways and provisions for the issuance of written permits, and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

Senate Bill 743

Senate Bill (SB) 743 was approved by then Governor Brown on September 27, 2013. SB 743 created a path to revise the definition of transportation impacts according to California Environmental Quality Act (CEQA). The revised CEQA Guidelines requiring a vehicle miles traveled (VMT) analysis became effective December 28, 2018; however, agencies had until July 1, 2020 to finalize their local guidelines on VMT analysis. The intent of SB 743 is to align CEQA transportation study methodology with and promote the statewide goals and policies of reducing VMT and greenhouse gases (GHG). Three objectives of SB 743 related to development are to reduce GHG, diversify land uses, and focus on creating a multimodal environment.

Local Regulations

Madera County General Plan

The existing Madera County General Plan was adopted in October of 1995. The County's General Plan identifies the goals and policies for addressing future growth within the horizon of the General Plan. The General Plan Circulation Plan Diagram designates roadways within the County as freeways, highways, arterials, and collectors. Policy 2.A.8 states that the County shall develop and manage its roadway system to maintain a minimum level of service D on all State and County Roadways.

Madera County Regional Transportation Plan for 2030

The Madera County Regional Transportation Plan (RTP) for 2030 (MCTC, 2007) is a long-range planning document for identifying and programming roadway improvements throughout Madera County. The RTP includes programs and policies for congestion management, transit, bicycles and pedestrians, roadways, freight and finances. The RTP must be revised at least every four years, since the County is designated as non-attainment for federal air quality standards. The RTP's primary use is as a regional long-range plan for federally funded transportation projects,

and it also serves as a comprehensive, coordinated transportation plan for all the governmental jurisdictions within the region. Different jurisdictions have different transportation implementation responsibilities under the plan. These include Caltrans, the County of Madera, and the cities of Chowchilla and Madera.

City of Madera General Plan

The City of Madera's General Plan includes a Circulation and Infrastructure Element, which addresses a broad range of topics related to "infrastructure," the physical systems of roads, walkways, water lines, etc., that allow Madera to function. The following Circulation-related policies are applicable to the Project.

Circulation Policies

Policy CI-1 Figure CI-1 shows the Circulation Master Plan of the City of Madera. The City will implement this Master Plan through the policies contained in this and other Elements of the Madera General Plan.

Action Item CI-1.1: Require the dedication of right of way and the installation of roadway improvements as part of the review and approval of development projects including requests for changes of land use designations.

Policy CI-4 The City shall seek to locate arterials or other major roadways, including the Madera Loop, inside the edge of the City's desired urban growth area. These roadways shall be designed to serve development on both sides, rather than be constructed as a single-loaded road on the edge of the urban area.

Roadway Implementation Policies

Policy CI-5 The City shall require the dedication or irrevocable offer of dedication of right of way for all arterials and collectors at the earliest opportunity in the development process in order to implement the Roadway Master Plan. Generally, the earliest opportunity to implement this policy will be the first of the following discretionary approvals which is available:

- Change of Zoning or General Plan Land Use Designation;
- Approval of a Comprehensive Plan, Specific Plan, or other master plan;

- Any subdivision map (such as a parcel map or tentative tract map);
- Conditional Use Permit;
- Site plan or design approval. If any of these discretionary approvals is not being sought, right of way dedication may be required as a condition of building permit approval.

Policy CI-6 The City shall protect future right-of-way needed for freeways, arterial and collector streets, and interchanges and railroad corridors and crossings from encroachment by development or other incompatible uses or structures.

Policy CI-7 In order to ensure adequate circulation capacity of collectors, arterials and larger streets, turning movements and driveway approaches to adjoining properties and onto local streets shall be limited so through traffic speeds are not reduced by more than 10 (ten) miles per hour based on the street design speed. This policy will not be applied where the City determines that existing land use patterns and unique site constraints make it impossible. Direct access to sites along arterial and larger streets should typically be provided from adjacent local streets or signalized shared access points. This should be implemented as early as possible in development when zoning and parcels are established.

Action Item CI 7.1: Amend the City standards to limit the spacing of driveway approaches and turn lanes as called for in Policy CI-7.

Policy CI-9 The City will work cooperatively with Caltrans to implement improvements to the state highway system in Madera.

Action Item CI-9.1: Review proposed development projects with Caltrans to facilitate the acquisition of right of way for ultimate improvements and to avoid and/or minimize potential traffic conflicts between State facilities, city streets, and private drives.

Policy CI-11 Development projects shall be required to provide funding or to construct roadway/intersection improvements to implement the City's Circulation Master Plan. The payment of established traffic impact or similar fees shall be considered to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that

the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in the fee program.

- Policy CI-12 New development shall provide funding acceptable to the City for the construction and permanent maintenance of all roadway facilities. Potential funding mechanisms may include assessment districts, community facility districts, or other methods.

Roadway Design Policies

- Policy CI-13 Where the installation of a single-loaded street cannot be avoided (such as in locations where lands on one side of a roadway are not planned to be developed), the City will include funding in its impact fees to provide for the construction of the portion of the roadway located on lands which are not being developed.
- Policy CI-17 Shared driveways, driveway consolidation, reciprocal access easements, and cross access easements to commercial centers shall be required along arterials and collector roads in new development projects and in the redevelopment or redesign of existing development to minimize traffic hazards associated with driveways and curb cuts.

Local Streets Policies

- Policy CI-20 To keep Local street volume within design capacity, street length (not block length) shall be kept under 1,600 feet or two blocks where possible unless interrupted by an arterial or collector street.
- Policy CI-21 Installation and maintenance of curb, gutter, sidewalk and paving on Local streets shall be the responsibility of affected property owners.

Level-of-Service Policies

- Policy CI-22 The City shall seek to maintain Level of Service (LOS) C at all times on all roadways and intersections in Madera, with the following exceptions:

a) On arterial roadways or roadways with at-grade railroad crossings that were experiencing congestion exceeding LOS C during peak hour travel times as of the date this General Plan Update is adopted the City shall seek to maintain LOS D or better.

b) This policy does not extend to freeways (where Caltrans policies apply) or to private roadways.

c) In the Downtown District (as defined in the Land Use Element of this General Plan), the City shall seek to maintain LOS D.

Action Item CI-22.1: Consider, during the review of proposed development projects, how to shift travel demand away from the peak period, especially in those situations where peak traffic problems result from a few major generators (e.g. outlying employment locations).

Action Item CI-22.2: Perform routine, ongoing evaluation of the efficiency of the urban street traffic control system, with emphasis on traffic signal timing, phasing and coordination to optimize traffic flow along arterial corridors. Use traffic control systems to balance arterial street utilization (e.g., timing and phasing for turn movements, peak period and off-peak signal timing plans).

Action Item CI-22.3: As funding allows, expand traffic signal timing and synchronization programs where emission reduction benefits can be demonstrated.

Policy CI-23 Projects contributing traffic to roadways exceeding the desired level of service per Policy CI-22 may be required to fund system wide traffic improvements, including cumulative traffic mitigation at off-site locations (as applicable), and to assist in promoting non-vehicular transportation as a condition of project approval.

Grid System Policies

Policy CI-24 The City shall seek to use a modified grid system for the roadway network, particularly in new development. The City defines a “modified grid” road system as follows:

- The roadway system shall have a system of arterial roadways in the form of a grid of arterials that will distribute traffic evenly and will avoid excessive concentrations of traffic in any given area.
- Arterials should be generally spaced at one (1) mile increments and collector roads generally at one half (½) mile increments.
- Collector and smaller roadways shall be designed to encourage access to retail centers from residential areas.
- Residential blocks shall be designed to limit traffic speeds and encourage pedestrian and bicycle safety through the design of the roadways or the use traffic calming measures (such as narrower streets).
- The grid system may be modified as necessary to adjust for topography, watercourses, existing development, or other factors as deemed appropriate by the City.

Policy CI-26 Projects providing significantly more than the required amount of parking shall be allowed only when the City determines that there is a demonstrated need for additional parking.

Action Item CI-26.1: Amend parking and other standards in the Zoning Code to reflect a balance between the need for parking and the desire of the City to achieve its goals regarding efficient land utilization, walkability, and increased opportunities to create additional space for landscaping and other amenities.

Policy CI-27 The City shall encourage pedestrian circulation and access around the City and at the neighborhood level through the design of roadways and pedestrian facilities.

Action Item CI-27.1: Expand the availability and visibility of bicycle infrastructure such as bike racks and bike storage facilities.

Action Item CI-27.2: Consider opportunities for lower-income individuals to have access to bicycles, through community-sponsored programs such as “bicycle sharing” or bicycle giveaways to children.

- Policy CI-28 New development areas shall include pedestrian and bicycle facilities and connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers, and high-density residential areas.

Action Item CI-28.1: Establish a transit and/or multimodal impact fee to be applied to new development to fund public transit infrastructure and other multimodal accommodations.

- Policy CI-29 The City shall create a connected system of on- and off-street trails and paths for pedestrians and bicycles throughout Madera in both existing and new development areas, with a focus on on-street bike trails on collector roads, and off-street trails in parkways and along the Fresno River and other waterways.

- Policy CI-30 Where it deems appropriate, the City may require the dedication of additional right of way to accommodate pedestrian, bicycle, alternative transportation (transit), additional travel lanes, safety or efficiency-related improvements, or other similar uses.

- Policy CI-31 The City's roadway cross-sections shall incorporate "complete streets" concepts and be designed to safely accommodate vehicles, cyclists, pedestrians, diverse and disabled users, and transit. "Complete streets" are defined as streets that are designed for a variety of users rather than having a focus on the automobile.

Action Item CI 31.1: Develop "Complete Street" standards for new arterial, collector, and local street construction. "Complete street" standards should include options for narrower travel way widths (on existing streets only, where needed to fit all uses into the existing right of way) and curb return radii, bike lanes, landscape strips, sidewalks that complement adjacent land uses, bus turnouts, and similar features. Note: Proposed narrower travel way widths may not apply to State Highways.

- Policy CI-32 To maintain walkability and pedestrian safety, the City shall consider roadway width and roadway design features such as islands, pedestrian refuges, countdown timers, and other such mechanisms. This policy applies to new roadway construction and existing roadways where pedestrian hazards may occur due to roadway design or width.

Policy CI-33 The needs of pedestrians and bicyclists shall be routinely considered and, where practical, accommodated in all roadway construction and renovation projects.

Policy CI-34 Where sufficient right-of-way is available, bicycle lanes should be added to City roadways when repaving or upgrading of the roadway occurs, provided that the bicycle facility would implement the City's Bicycle Master Plan. The City shall encourage Caltrans to follow these same guidelines on state highways in Madera.

Action Item CI-34.1: The City shall implement the Bicycle Master Plan through repaving, restriping, providing additional paving for bicycle lanes, or other methods as appropriate.

Policy CI-35 The City shall encourage grade-separated crossings or enhanced at grade crossings where Class I bicycle facilities intersect arterial roadways at key locations to maximize the safety and attractiveness of bicycling and walking routes. Underpasses are preferable to overpasses in new development areas.

Policy CI-36 The City shall encourage an increase in bicycle ridership and pedestrian trips over automobile traffic, as a way to improve traffic safety, air quality and the health of Madera residents.

Policy CI-37 The City encourages the use of ridesharing and other Transportation Demand Management (TDM) tactics for reducing area traffic congestion and improving air quality.

Thresholds of Significance

In accordance with the CEQA Guidelines, a project impact would be considered significant if the project would:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

- Result in inadequate emergency access

Impacts and Mitigation Measures

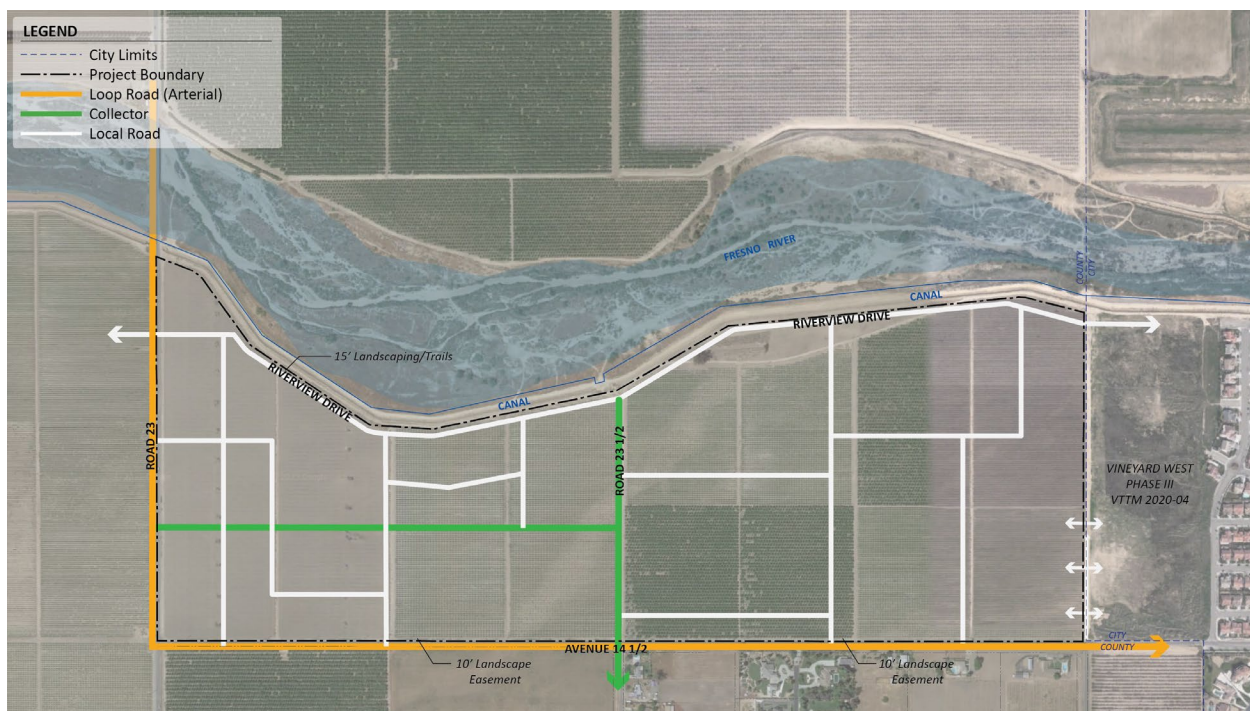
Impact 3.15-1: *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Less Than Significant Impact with Mitigation Incorporated.

Roadway Network

The roadway classifications within the Granite Creek Plan Area are intended to provide mobility and accesses and consist of three street types.

Granite Creek Precise Plan Circulation and Mobility Overview



- Arterial Streets (shown in orange) - provide the principle network for traffic flow in the community, connecting areas of major activity to each other and to state highways and important County roads. Arterials generally include up to four lanes (two in each direction), although total widths of six lanes may be appropriate in some locations.
- Collector Streets (shown in green) - provide a link between neighborhood streets and arterials. Collectors provide two travel lanes and bike lanes. On-Street parking may

be provided if sufficient width is available. Collectors also provide access to adjacent properties, so driveway access should be discouraged, but need not be restricted (subject to accepted engineering practice). Bike lanes, landscape park strips, sidewalks, and transit facilities may also be accommodated.

- Local Streets (shown in white) - provide direct access to adjacent properties. Neighborhood streets should provide two travel lanes, landscape park strips, and sidewalks. On-street parking may be regulated. Bike lanes are usually not needed because neighborhood streets carry low traffic volumes, and all neighborhood streets are considered to be bicycle friendly. Neighborhood streets are not shown on the General Plan Circulation Diagram.

Pursuant to Public Resources Code (PRC) Section 21099(b)(2) and CEQA Guidelines Section 15064.3(a), a project's effect on automobile delay and traffic LOS is not considered a significant environmental impact, therefore, further discussion of LOS is not required under CEQA. Consistency with General Plan policies adopted for the purpose of avoiding or mitigating an environmental effect pursuant to Appendix G of the CEQA Guidelines is required to be evaluated in CEQA documents. Because LOS is not considered an environmental impact under CEQA, consistency with General Plan policies that address LOS are not required to be evaluated. However, in order to comply with the City's General Plan policy LOS requirements, the Project will require improvements to eight intersections. Based on the results of the LOS analysis, it was determined that the intersections of Avenue 16 & State Route 99 Southbound Ramps, Road 23 & Cleveland Avenue, Granada Drive & Cleveland Avenue, Road 23 & Riverview Drive, Road 24 & Avenue 14 ½, Westberry Road & Sunset Ave, Pine Avenue & Sunset Avenue, and Road 24 & 14th Avenue require signalization.

The City's General Plan contains several goals, policies, and action items that would assist in reducing the Project's impact related to the circulation system, including transit, roadway, bicycle and pedestrian facilities. The following list contains those policies and action items that contain specific, enforceable requirements and/or restrictions and corresponding performance standards that address this impact.

Policy CI-1 Figure CI-1 shows the Circulation Master Plan of the City of Madera. The City will implement this Master Plan through the policies contained in this and other Elements of the Madera General Plan.

Action Item CI-1.1: Require the dedication of right of way and the installation of roadway improvements as part of the review and approval

of development projects including requests for changes of land use designations.

- Policy CI-4 The City shall seek to locate arterials or other major roadways, including the Madera Loop, inside the edge of the City’s desired urban growth area. These roadways shall be designed to serve development on both sides, rather than be constructed as a single-loaded road on the edge of the urban area.
- Policy CI-5 The City shall require the dedication or irrevocable offer of dedication of right of way for all arterials and collectors at the earliest opportunity in the development process in order to implement the Roadway Master Plan. Generally, the earliest opportunity to implement this policy will be the first of the following discretionary approvals which is available:
- Change of Zoning or General Plan Land Use Designation;
 - Approval of a Comprehensive Plan, Specific Plan, or other master plan;
 - Any subdivision map (such as a parcel map or tentative tract map);
 - Conditional Use Permit;
 - Site plan or design approval. If any of these discretionary approvals is not being sought, right of way dedication may be required as a condition of building permit approval.
- Policy CI-6 The City shall protect future right-of-way needed for freeways, arterial and collector streets, and interchanges and railroad corridors and crossings from encroachment by development or other incompatible uses or structures.
- Policy CI-7 In order to ensure adequate circulation capacity of collectors, arterials and larger streets, turning movements and driveway approaches to adjoining properties and onto local streets shall be limited so through traffic speeds are not reduced by more than 10 (ten) miles per hour based on the street design speed. This policy will not be applied where the City determines that existing land use patterns and unique site constraints make it

impossible. Direct access to sites along arterial and larger streets should typically be provided from adjacent local streets or signalized shared access points. This should be implemented as early as possible in development when zoning and parcels are established.

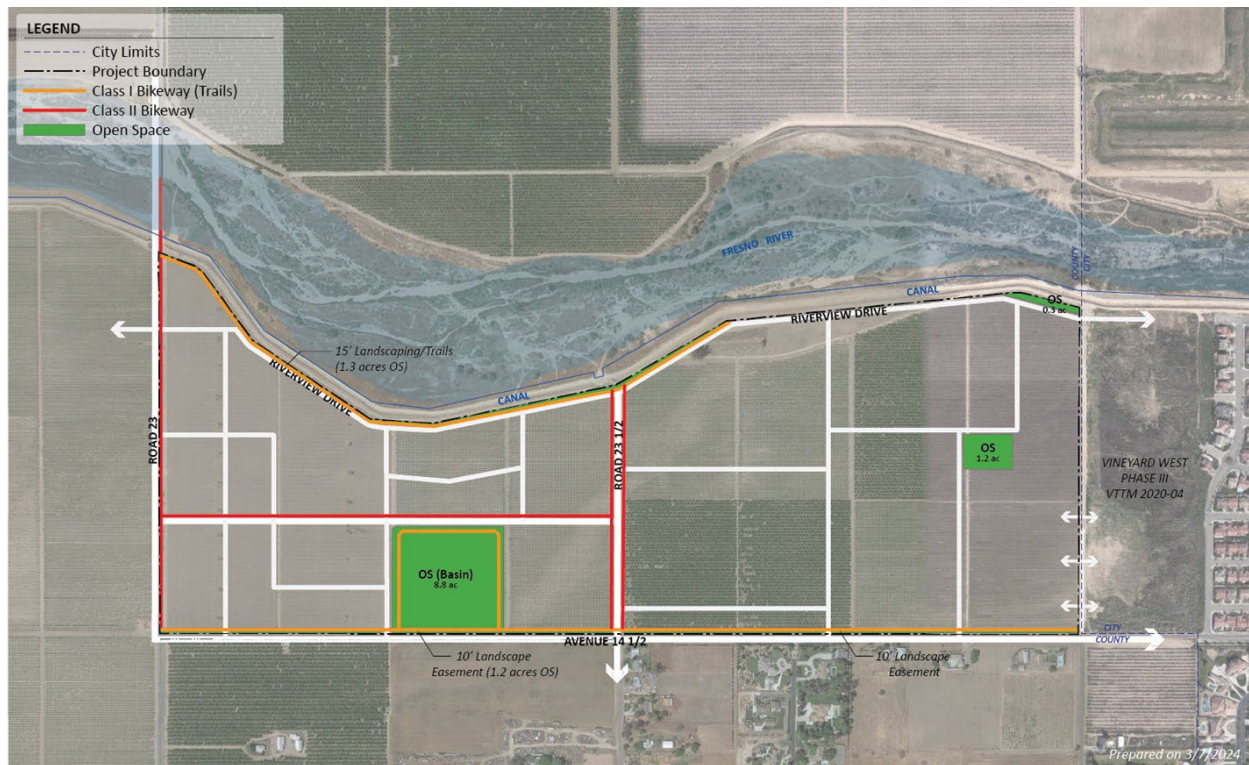
Action Item CI 7.1: Amend the City standards to limit the spacing of driveway approaches and turn lanes as called for in Policy CI-7.

- Policy CI-11 Development projects shall be required to provide funding or to construct roadway/intersection improvements to implement the City's Circulation Master Plan. The payment of established traffic impact or similar fees shall be considered to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in the fee program.
- Policy CI-12 New development shall provide funding acceptable to the City for the construction and permanent maintenance of all roadway facilities. Potential funding mechanisms may include assessment districts, community facility districts, or other methods.
- Policy CI-22 The City shall seek to maintain Level of Service (LOS) C at all times on all roadways and intersections in Madera, with the following exceptions:
- a) On arterial roadways or roadways with at-grade railroad crossings that were experiencing congestion exceeding LOS C during peak hour travel times as of the date this General Plan Update is adopted the City shall seek to maintain LOS D or better.
 - b) This policy does not extend to freeways (where Caltrans policies apply) or to private roadways.
 - c) In the Downtown District (as defined in the Land Use Element of this General Plan), the City shall seek to maintain LOS D.

Bicycle and Pedestrian Facilities

The Project proposes a connected Bicycle and Pedestrian Facilities Plan for the site that provides a safe and comfortable transportation experience for alternative modes of transportation including bicycling and walking.

Granite Creek Precise Plan Bicycle and Open Space Overview



The proposed pedestrian mobility network is integrated with the open space plan and is shown above. Both Class I (bike path) and Class II (bike lane) bikeways are part of the Project description and are proposed in the Project area and are required to be built. Class I bikeways are proposed along Avenue 14-1/2 and Riverview Drive (east-west), connecting to the adjacent Riverstone Community, and along Avenue 12 (partial), Road 38, Road 39, and Road 23 (north-south). Additional Class I bikeways will be included around the proposed dual use basin/park located north of Avenue 14-1/2 at Road 23-1/4. Class II bikeways are proposed all along Road 23 and Road 23-1/2. A Class II bikeway will also be developed between Roads 23 and Road 23-1/2 for further connectivity from residential uses to the proposed mixed-use areas.

The Madera County 2004 Regional Bicycle Transportation Plan was developed specifically as a component of the 2004 Madera County Regional Transportation Plan (RTP) update. The plan is

consistent with the City of Madera General Plan and reflects the outlook of the adjoining jurisdictions as contained in the Fresno County Regional Transportation Plan, Mariposa County Regional Transportation Plan, and the 2003 Merced County Regional Commuter Bicycle Plan. The regional plan outlines the development of a continuous network of bicycle facilities that will enable bicycling to become a viable mode of transportation in the City of Madera and is consistent with valley wide programs to limit single occupant motor vehicle travel. Specifically, transportation control measures contained in the Regional Transportation Plan and the California State Implementation Plan for Air Quality are supportive of bicycle and pedestrian plans and programs which encourage them. The Project will integrate the policies and guidelines associated with the Madera County 2004 Regional Bicycle Transportation Plan.

In addition to the policies mentioned previously, the City has policies that guide pedestrian, transit and bicycle modes of transportation, including:

Complete Streets: The City requires the incorporation of design principles that accommodate pedestrians, cyclists and diverse users safely

Neighborhood Connectivity: Policies promote neighborhood design that connects residential areas with pathways, rails, and walkways to foster community and reduce the need for vehicles.

Integration of Active Transportation: The Active Transportation Plan (ATP) supports creating a transportation network that includes pedestrian pathways, bikeways, and transit to provide alternatives to driving.

Community Design Standards: Pedestrian-friendly features, such as well-designed and well-placed crosswalks and sidewalks, are encouraged in new developments.

Integration of these plans and policies into the Project's bicycle and pedestrian plan will increase pedestrian safety by providing full connectivity and safe methods of using these alternative transportation methods.

Transit Service

Transit service in the City of Madera is provided by Madera Metro. The closest route to the Project area is the Orange Line that travels north-south along North Granada Drive, approximately one mile east of the easternmost point of the Project area. Future transit services including the location of bus stops, shelters, turnouts, and park-and-ride facilities will be coordinated with Madera Metro. Locations of these facilities will be determined based on anticipated usage and compliance with the guidelines and policies associated with Madera Metro.

The Project does not include site improvements that would interfere with the existing roadway network or impede the construction of new or the expansion of existing facilities, including public transit, bicycle, or pedestrian facilities in the future. Consistent with the City's circulation policies, the Project would provide safe, convenient, and direct pedestrian access to surrounding land uses; plan and enhance a comprehensive bicycle network that encourages the use of bicycles and pedestrian walkways.

Therefore, after mitigation, the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be *less than significant with mitigation incorporated*.

Mitigation Measures:

TRA-1

Prior to the issuance of construction or building permits, the City shall require as a condition of approval for any future development within the Plan Area that the Project developer(s) shall comply with General Plan policies CI-1, CI-4, CI-5, CI-6, CI-7, CI-11, CI-12 and CI-22.

After implementation of Mitigation Measure TRA - 1 the Project's impacts would be reduced to a *less than significant* level.

Impact 3.15-2: *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less Than Significant Impact. A detailed Vehicle Miles Traveled Analysis Memorandum (VMT Memo) was prepared by LSA, dated August 22, 2025 and is the basis for the analysis below. The full VMT Memo is provided in Appendix E.

Background

In 2013, the state of California enacted legislation (SB 743) which required the Governor's Office of Planning and Research (OPR) to identify new metrics for measuring and mitigating transportation impacts within the California Environmental Quality Act (CEQA). For land development projects, OPR recommended replacing the metric of vehicle delay, as defined by level of service (LOS) and other similar measures, with vehicle miles travelled (VMT) metrics

based on project land use. Regulatory changes to CEQA Guidelines incorporating SB 743 were approved on December 28, 2018. Statewide implementation began on July 1, 2020.

Under CEQA, lead agencies have the authority to establish their own VMT significance thresholds and analysis methodologies. At the time of this report, the City of Madera has not yet adopted VMT guidelines. Therefore, the VMT analysis was completed using the guidelines and thresholds identified in the California Governor's Office of Research and Planning Technical Advisory (OPR TA), dated December 2018.

VMT Metrics, Region and Threshold

The Project includes residential, commercial, open space, and public facilities and can therefore be considered a mixed-use project. As per the OPR TA, residential land uses can be evaluated using VMT per capita metric. As such, per OPR TA recommendation, for the residential component, a project exceeding a level of 15 percent below the existing regional VMT per capita would indicate a significant impact.

Similarly, the OPR TA recommends using a region for VMT analysis purposes that is estimated to contain majority of the project land use trips, and thereby VMT. Given the land uses, size and location of the Project, it was estimated that majority of the Project trips will be contained within Madera County region. As such, the entire Madera County has been used as the region for VMT analysis purposes. Although the VMT modeling only includes Madera County, it does account for trips going to Fresno using external stations coded into the model. Therefore, the following will determine whether the project would have a VMT impact:

- If the VMT per capita for the residential component is higher than 85 percent of baseline VMT per capita for the entire Madera County, it will have a significant VMT impact:
- Similarly, if the total roadway VMT for the entire Madera County increases with the project's retail land use component, it will have a significant VMT impact.

It should be noted that per OPR TA, public services and open space land uses are typically screened out, since they tend to reduce vehicle travel and thereby VMT within the region. As such, these non-residential land use components of the Project were screened out, though they have been coded in the model to accurately account for Project's internal capture and estimate the Project VMT profile.

Project Screening

The VMT Guidelines contain criteria for determining whether a land use project may be screened from a detailed VMT analysis. These "screening" criteria relate to project size, location, and

accessibility to transit. The Project did not meet any of the screening criteria. Therefore, a detailed VMT analysis was conducted by LSA Associates (Riverside, California) using the 2019 MCTC Travel Demand Forecasting Model to estimate Project VMT (See Appendix E).

VMT Analysis – Residential Component

The regional VMT per capita value was obtained from the *Madera County Travel Demand Model - 2019 Model Update*, dated September 2020 as 10.0. Further, as stated above, 15 percent below the baseline regional VMT per capita was considered as the threshold for residential projects, which resulted in a VMT threshold of 8.5. Table 3.15-1 shows the regional threshold and Project VMT per capita rate for the residential component of the Project. As shown in Table 3.15-1, the Project VMT per capita for the residential component is 4.4, which is 47.8 percent less than the significant threshold. As such, the residential component of the Project would not have any significant VMT impact. Detailed VMT calculation for the Project is included in Appendix E.

Table 3.15-1
Baseline (2018) Regional & Project VMT per Capita

Base Year (2018)	Granite Creek Precise Plan (project)	Significant Threshold *	Difference	% Difference
VMT per capita	4.4	8.5	(4.1)	(47.8)%

Source: Madera County Transportation Commission (MCTC) Travel Demand Model

*Threshold obtained from Madera County Travel Demand Model – 2019 Model Update, September 2020 (85% of baseline average)

VMT Analysis – Retail Component

Table 3.15-2 shows the countywide roadway VMT from both “with retail” and “without retail” model runs. As seen in Table 3.15-2, the addition of the Project’s retail doesn’t increase Countywide roadway VMT. As such, based on the OPR TA recommendation, the retail component of the Project will not have a significant VMT impact. Detailed VMT calculation for the Project is included in Appendix E.

Table 3.15-2
Baseline (2018) Retail Component VMT Comparison

	With Project (Entire Project)	Without Project (Project without Retail)	Difference
Roadway VMT	4,919,062	4,941,869	(22,807)

As shown in Table 3.15-2, the addition of the Project's retail dose not increase the Countywide roadway VMT. As such, based on the OPR TA recommendation, the retail component of the Project will not have a significant VMT impact. Detailed VMT calculation for the Project is included in Appendix E.

Conclusion

As shown in Tables 3.15-1 and 3.15-2, neither the residential component nor the retail component of the Project would have a significant VMT impact. The school component of the Project would be screened out as a public facility land use. Therefore, the Project as a whole would not have a significant VMT impact. Impacts are *less than significant*.

Mitigation Measures

None are required.

Impact 3.15-3: *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less Than Significant Impact. The overall layout of the Project is block form with numerous points of ingress and egress. All proposed internal roadways will be constructed to meet local and State standards and requirements. No sharp roadway curves currently exist in the Project area, nor would such curves be created by the Project. No roadway design features associated with this Project would result in an increase in hazards due to a design feature or be an incompatible use. The final design will be subject to City review and will be enforced by the City through compliance with local and State standards and requirements. There are no agricultural uses (such as farm equipment) associated with the Project. Farming operations will continue on surrounding lands, however, they will not conflict with or impede the functionality and safety of the Project or farming operations. Any impacts would be *less than significant*.

Mitigation Measures

None are required.

Impact 3.15-4: *Would the project result in inadequate emergency access?*

Less Than Significant Impact With Mitigation. Project construction activities could result in potential vehicular access issues due to potential temporary road detours and/or closures to accommodate Project construction. A construction-traffic management plan (Plan) will be required prior to construction of the Project, as identified in Mitigation Measure TRA – 1. The Plan would delineate all road closure provisions to maintain access to adjacent properties at all times, prior notices, adequate sign-postings, detours, provisions for pedestrian and bicycle transportation and permitted hours of construction activity. Proper detours and warning signs would be established along the Project perimeter to ensure public safety. The Plan shall be devised so that construction would not interfere with emergency response or evacuation plans. With implementation of the Plan, less than significant impacts are anticipated. Therefore, no significant impacts to vehicular and emergency access would occur during construction activities.

Once constructed, the Project includes multiple access roads allowing adequate egress and ingress to the residential development in the event of an emergency. Additionally, as part of the Project, internal access roadways would be constructed to City standards. The City has reviewed the site layout and determined that the Project provides adequate emergency access. Therefore, there is a *less than significant impact with mitigation incorporation*.

Mitigation Measures:

TRA-2

Prior to the issuance of construction or building permits, the City shall require as a condition of approval for any future development within the Plan Area that the Project developer(s) shall:

1. Prepare and submit a Construction Traffic Control Plan to City of Madera for approval. Implement the approved Construction Traffic Control Plan during construction. The Construction Traffic Control Plan shall be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and shall include at minimum, but not be limited to, the following issues:

- a. Timing of deliveries of heavy equipment and building materials;
- b. Directing construction traffic with a flag person;
- c. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic;
- d. Ensuring access for emergency vehicles to the project site;
- e. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
- f. Maintaining access to adjacent property; and,
- g. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible.

After implementation of Mitigation Measure TRA - 2 the Project's impacts would be reduced to a *less than significant* level.

Cumulative Impacts

The potential for cumulative transportation impacts exists where there are multiple projects proposed in an area that have overlapping operational phases that could affect similar resources. Projects with overlapping schedules for operations could result in a substantial contribution to increased traffic levels throughout the surrounding roadway network. The Project, when considered with nearby, reasonably foreseeable planned projects, would not result in a cumulatively considerable and unavoidable impact.

Impact 3.15-1: Less Than Cumulatively Considerable. After implementation of the General Plan and Circulation Element's enforceable policies (mitigation measure TR-1), the Project will not conflict with the City's adopted General Plan and Circulation Element. This includes signalization of eight intersections around the Plan Area to reduce LOS. As discussed previously, implementation of the General Plan policies described in Impact 3.15-1 and the associated action items would reduce impacts to transportation and circulation to a *less than cumulatively considerable* level.

Impact 3.15-2: Less Than Cumulatively Considerable. VMT is generally evaluated on a project-by-project basis (rather than in a cumulative manner) because each individual project is evaluated relative to its proximity to other land uses when calculating VMT. The Project's VMT per capita was evaluated to be 55.9% less than Madera County's significant threshold. Therefore, the residential portion of this Project has a less than significant VMT impact. Additionally, the retail VMT comparison indicates that the Project does not increase the Countywide roadway VMT. Therefore, the retail portion of the Project has a less than significant VMT impact. The school will screen out of VMT analysis, as they are public facility land uses. As such, VMT impacts are expected to be less than *cumulatively considerable*.

Impact 3.15-3: Less Than Cumulatively Considerable. As previously discussed, the Project does not include any hazardous geometric design features or incompatible uses. Other potential projects that could occur in the area would be subject to review by the City or County to determine potential geometric hazards on a project-by-project basis. As such, implementation of the Project would not make a cumulatively considerable contribution to any significant impact to hazardous layout/road design. Cumulative impacts are *less than significant*.

Impact 3.15-4: Less Than Cumulatively Considerable. The City will require the developer/construction contractor to develop a construction traffic management plan that will ensure emergency vehicle access during construction (TRA-2). As discussed previously, after construction is complete, the Project includes multiple access roads allowing adequate egress and ingress to the development in the event of an emergency. Additionally, as part of the Project, internal access roadways would be constructed to City standards. The City has reviewed the site layout and determined that the Project provides adequate emergency access. In addition, a construction traffic management plan will be devised so that construction would not interfere with emergency response or evacuation plans. Other projects in the area may be constructed simultaneously. However, those projects would also be subject to a construction traffic management plan and site plan review to ensure that adequate emergency vehicle access is maintained. Therefore, the implementation of the Project would not make a cumulatively

considerable contribution to any significant impact to inadequate emergency access. Cumulative impacts are *less than significant*.

3.16 Utilities and Service Systems

This section of the DEIR identifies potential impacts of the Project pertaining to water supply and infrastructure, wastewater service, solid waste and other utility services. To assist in evaluation of this environmental impact, an SB 610 Water Supply Assessment (Appendix C) was prepared. No NOP comments were received pertaining to this topic.

Environmental Setting

Project Site

As described in Section 2.1, the Project site is located east of Road 23 between Avenue 14-1/2 and the Fresno River in unincorporated Madera County. The Plan Area consists of two (2) properties that total approximately 204 acres, generally bound to the north by the Fresno River, to the south by Avenue 14-1/2, to the west by Road 23, and to the east by the Vineyard West Phase II Subdivision. The Project site is currently developed with agriculture, specifically grape vines and almond trees. The Project area is surrounded primarily by agricultural uses to the north past the Fresno River and to the west, and single-family residential uses to the east. The south side of the Project area includes a combination of residential uses and agricultural uses. According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service, the Project site is underlain by Hanford fine sandy loam, 0 to 1 percent slopes (34.7%); Pachappa fine sandy loam, 0 to 1 percent slopes (28%); Grangeville fine sandy loam, slightly saline-alkali, 0 to 1 percent slopes (10.5%); Delhi sand, 3 to 8 percent slopes, MLRA 17 (8.1%); Tujunga loamy sand, 0 to 3 percent slopes (4.6%); Hanford sandy loam, moderately deep over sand, 0 to 3 percent slopes (4.4%); Hanford sandy loam, 0 to 3 percent slopes (2.4%); Delhi sand, 0 to 3 percent slopes, MLRA 17 (%); Traver loam, slightly saline-alkali, 0 to 1 percent slopes (1.8%); Grangeville fine sandy loam, 0 to 1 percent slopes, MLRA 17 (1.6%); Traver loam, moderately saline-sodic, 0 to 1 percent slopes (0.9%); and Riverwash (0.8%).¹ The Project area is essentially flat, lying at an elevation of approximately 250 feet above sea level. Madera County is located on the Central Valley floor, in the San Joaquin Valley.

The Project site is directly west of the city limits of the City of Madera and lies within the Urban Growth Boundary (UGB) and the Sphere of Influence (SOI) for the City of Madera. The Project site consists of two (2) parcels including Madera County Assessor's Parcel Numbers (APNs) 045-070-025 and a portion of 045-070-026. The Project area lies within the UGB and SOI just west of

¹ Colibri Ecological Consulting. December 2024. See Appendix C.

the current city limit boundary. The site is currently designated by the City of Madera's General Plan as Village Reserve and is zoned by Madera County as Agricultural, Rural, Exclusive-40 (ARE-40). The Project proposes to annex the 327-acres of property into the City and would accordingly change the existing land use to a mix of uses, including residential, mixed use, commercial, open space, and public/semi-public uses as detailed in Figure 2-4. Additionally, the proposed zoning would include approximately: 5.48 acres of P-D (1500), 35.35 acres of P-D (3000), 105.44 acres of P-D (4500), 18.27 acres of P-D (6000), 10.06 acres of C-1 (Light Commercial), 15.19 acres of C-N (Neighborhood Commercial), 22.34 acres of PF (Public Facilities), 23.70 acres of RCO (Resource Conservation and Open Space), and 91.61 acres of Unclassified zoning (Fresno River) as shown on Figure 2-5.

The City is responsible for providing the main source of water supply for the City of Madera and the surrounding communities. Upon annexation, the site will be added to the City's water service area. The Project will also require connection to the City's wastewater treatment (sewer) system and will require other utilities such as electrical and solid waste. Each utility is discussed individually herein.

Local Groundwater Basin

Groundwater is the only source of the City's potable water supply. The groundwater basin underlying the City is the Madera Subbasin (5.022-06) within the San Joaquin Valley Basin (5.022). Although the Madera Subbasin is not adjudicated, the Department of Water Resources (DWR) has identified the Madera Subbasin as a critically over-drafted basin and is classified as high priority, based on the 2019 SGMA-BP.

Historically, groundwater pumping has decreased over time to ensure that the water demand usage remains below their 2020 target. Based on the City's 2020 UWMP Update, the City's confirmed 2020 target was 196 GPCD, but their actual 2020 GPCD was 119 GPCD. The UWMP Update documents 9,203 AF of groundwater pumped in 2016, and only 8,754 AF pumped by 2020. This is largely due to mitigation efforts. According to the 2020 UWMP Update, the City maintains a conservative expectation where groundwater pumping will increase from 14,870 afy to 17,278 afy based on the 2020 water use target over the next twenty years.

The supply total is assumed to match the demand total since groundwater pumping will operate to meet demands per 2020 UWMP Update. Therefore, the City will not meet the water deficit in a normal year.

Existing Water Infrastructure

According to the City's General Plan, the Water and Sewer Division of the City of Madera Public Works Department is divided into three areas: Water Maintenance Division, Water Quality Division and Sewer Maintenance Division, which provide for the maintenance and operation of the City's water system and sanitary sewer collection system.

The City is responsible for 17 groundwater wells, the Loy E. Cook 1-million-gallon water storage tower, and more than 200 miles of water distribution pipelines.

The Project will require connection to the City's water system and will be responsible for construction of connection points to the City's existing water infrastructure.

Existing Wastewater Infrastructure

The Sewer Division maintains approximately 140 miles of sanitary sewer mains in a system that includes five sewer lift pump stations and main pipelines ranging in size from 6" to 48". The Wastewater Treatment Plant (WWTP) is the regional facility for disposal of wastewater. The treatment plant handles wastewater and sewage from approximately 10,000 residential, commercial and industrial accounts.²

The Project will require connection to the City's sewer/wastewater system and will be responsible for construction of connection points to the City's existing sewer/wastewater infrastructure.

Solid Waste

City of Madera Solid Waste Division provides all residential customers with solid waste and greenwaste services, through contract with Mid Valley Disposal. There are several recycling companies in Madera that accept beverage containers and other recyclables. The City also recently (2008) launched a "blue can" curbside recycling system, making it easier for Maderans to recycle paper, bottles, cans, and other recyclables. Computer monitors and television sets containing hazardous waste are accepted at the Fairmead Landfill in Chowchilla. The landfill also accepts many recyclables free of charge, and some at reduced rates. There are several locations in Madera County to recycle used motor oil and filters.³

Regionally, the County has issued exclusive franchise agreements with Red Rock Environmental Group and Emadco Disposal Services to provide waste hauling services to the constituents of

² City of Madera General Plan, October 7, 2009. Circulation and Infrastructure Element, page 4-9.

³ Ibid.

Madera County, including residential, commercial, and construction/demolition. The waste collection services are divided into two areas; Valley Area (below 1000' elevation) and Mountain Area (above 1000' elevation). Two disposal locations are open to the public for self-hauling and commercial franchises; the Fairmead Landfill and the North Fork Transfer Station. Both facilities are owned by the County and operated under contract with the Red Rock Environmental Group.⁴

Electrical and Natural Gas

Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. Pacific Gas & Electric provides electric service to City of Madera residents.

Energy Usage

Energy usage is typically quantified using the British Thermal Unit (BTU). Total energy consumption in California was 6,882 trillion BTU in 2022 (the most recent year for which this specific data is available), which equates to an average of 176 million BTU per capita.⁵ Of California's total energy usage, the breakdown by sector is approximately 44.5 percent transportation, 21.4 percent industrial, 17 percent commercial, and 17.1 percent residential.⁶ Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use.

While BTUs measure total energy usage, electricity is generally measured in kilowatt-hours (kWh) which is the standard billing unit for energy delivered to consumers by electrical utilities. The total electricity consumption, including Residential and Non-Residential, attributable to

⁴ Madera County, Solid Waste Management. <https://www.maderacounty.com/government/public-works/solid-waste-management>. Accessed June 2025.

⁵ U.S. Energy Information Administration, California State Profile and Energy Estimates. California Quick Facts. <https://www.eia.gov/state/print.php?sid=CA>. Accessed June 2025.

⁶ U.S. Energy Information Administration, California State Profile and Energy Estimates. Profile Overview. <https://www.eia.gov/state/?sid=CA#tabs-2>. Accessed June 2025.

Madera County from 2013 to 2022 is shown in Table 3.16-1. As indicated, energy consumption in Madera County varied approximately 14.6% over the 10 years.

Table 3.16-1
Total Electricity Consumption in Madera County 2013 – 2022⁷

Year	Electricity Consumption (in millions of Kilowatt Hours)
2013	1,577
2014	1,658
2015	1,694
2016	1,588
2017	1,579
2018	1,654
2019	1,581
2020	1,742
2021	1,800
2022	1,808

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and, therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel.

Natural gas service is primarily provided by the Southern California Gas Company. The total natural gas consumption, including Residential and Non-Residential, attributable to Madera

⁷ California Energy Commission. Energy Reports. Electricity Consumption by County. <https://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed June 2025.

County from 2013 to 2022 is provided in Table 3.16-2. Natural gas consumption in Madera County varied approximately 3.4% over the 10 years.

Table 3.16-2
Natural Gas Consumption in Madera County 2013 – 2022⁸

Year	Natural Gas Consumption (in millions of Therms)
2013	46.9
2014	48.2
2015	51.7
2016	54.4
2017	54.7
2018	56.7
2019	57.1
2020	54.1
2021	51.3
2022	48.5

Telecommunications

Four major communication companies provide communications services in Madera: AT&T, Sprint, T-Mobile & Verizon. The primary internet providers in the area are AT&T, Xfinity and HughesNet.

Regulatory Setting

Federal Agencies and Regulations

Clean Water Act (CWA)

⁸ California Energy Commission. Energy Reports. Gas Consumption by County.
<http://www.ecdms.energy.ca.gov/gasbycounty.aspx> Accessed June 2025.

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

Safe Drinking Water Act

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

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

Federal Emergency Management Agency (FEMA)

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal

Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

Central Valley Project Improvement Act

The Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575) includes Title 34, the Central Valley Project Improvement Act (CVPIA). The CVPIA amended the previous authorizations of the California CVP to include fish and wildlife protection, restoration, and mitigation as project purposes having equal priority with irrigation and domestic uses and fish and wildlife enhancement as a project purpose equal to power generation. The CVPIA identifies specific measures to meet the CVPIA's multiple purposes.

State of California Regulations

California Green Building Standards Code

Construction- and demolition-generated (C&D) waste is heavy, inert material. This material creates significant problems when disposed of in landfills. Since C&D debris is heavier than paper and plastic, it is more difficult for counties and cities to reduce the tonnage of disposed waste. For this reason, C&D waste debris has been specifically targeted by the State of California for diversion from the waste stream.

The California Green Building Standards Code (Standards Code) will apply to the construction related activities of this Project. The purpose of the Standards Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings using building concepts that have a positive environmental impact and encouraging sustainable construction practices. Provisions of the Standards Code shall apply to the design and construction of building structures subject to State regulation.

California Department of Resources Recycling and Recovery (CalRecycle)

CalRecycle is the State agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. CalRecycle develops regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. The Board works jointly with local government to implement regulations and fund programs.

Assembly Bill 939 and Senate Bill 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management

plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures to assist in reducing these impacts to less-than-significant levels. With the passage of Senate Bill (SB) 1016 (the Per Capita Disposal Measurement System) in 2006, only per capita disposal rates are measured to determine if a jurisdiction's efforts are meeting the intent of AB 939.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate activities which may adversely affect the quality of waters of the State to attain the highest water quality which is reasonable, considering a full range of demands and values. The act authorizes the SWRCB to establish water quality principles and guidelines for long-range resource planning including groundwater and surface water management programs and control and use of recycled water. Much of the implementation of the SWRCB's responsibilities is delegated to nine Regional Water Quality Control Boards (RWQCBs). The Project site is located within the jurisdiction of the Central Valley RWQCB.

California Water Code (CWA)

The Federal CWA establishes certain guidelines for the states to follow in developing programs for the control of surface water pollution and for planning the development and use of water resources. Under certain circumstances, the CWA allows the federal Environmental Protection Agency (EPA) to withdraw the primary responsibility for these programs from states with inadequate implementation mechanisms.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The regional plans must conform with the policies set forth in the Porter-Cologne Act and established by the State water policy adopted by the SWRCB. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

- (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:
 - (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
 - (2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.
 - (3) A person operating, or proposing to construct, an injection well.
- (b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.
- (c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Water Code section 10910 (SB 610)

Water Code section 10910 (SB 610) requires that a lead agency obtain a water supply assessment from an applicable public water system for certain projects subject to the California Environmental Quality Act, which are defined as (a) a residential development of more than 500 dwelling units; (b) a shopping center or business employing more than 1,000 persons or having more than 500,000 square feet of floor space; (c) a commercial office building employing more than 1,000 persons or having more than 250,000 square feet; (d) a hotel or motel with more than

500 rooms; (e) an industrial or manufacturing establishment housing more than 1,000 persons or having more than 650,000 square feet or 40 acres; (f) a mixed use project containing any of the foregoing; or (g) any other project that would have a water demand at least equal to a 500 dwelling unit project. Refer to Impact Section 3.9-2 herein for the discussion pertaining to the Water Supply Assessment that was prepared for the Project.

Regional Water Quality Board

The Central Valley RWQCB administers the NPDES storm water-permitting program in the Central Valley region, including Madera. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan must include specifications for Best Management Practices (BMPs) that will be implemented during proposed construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the SWRCB and the Central Valley RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP describes measures to prevent or control runoff degradation after construction is complete, and identifies a plan to inspect and maintain these facilities or project elements.

Waste Discharge Requirements

The Central Valley RWQCB typically requires a Waste Discharge Requirements (WDR) permit for any facility or person discharging or proposing to discharge waste that could affect the quality of the waters of the state, other than into a community sewer system. Those discharging pollutants (or proposing to discharge pollutants) into surface waters must obtain an NPDES permit from the Central Valley RWQCB.

The NPDES serves as the WDR. For other types of discharges, such as those affecting groundwater or in a diffused manner (e.g., erosion from soil disturbance or waste discharges to land), a Report of Waste Discharge must be filed with the Central Valley RWQCB in order to obtain a WDR. For specific situations, the Central Valley RWQCB may waive the requirement to obtain a WDR for discharges to land or may determine that a proposed discharge can be permitted more effectively through enrollment in a general NPDES permit or general WDR.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under the jurisdiction of the appropriate Regional Water Quality and Control Board (RWQCB). Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under CWA Section 401.

Assembly Bill 1881

AB 1881 expanded previous legislation related to landscape water use efficiency. AB 1881, the Water Conservation in Landscaping Act of 2006, enacted landscape efficiency recommendations of the California Urban Water Conservation Council (CUWCC) for improving the efficiency of water use in new and existing urban irrigated landscapes in California. AB 1881 required the DWR to update the existing Model Local Water Efficient Landscape Ordinance and local agencies to adopt the updated model ordinance or an equivalent. The law also requires the California Energy Commission to adopt performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Assembly Bill 2882

AB 2882 was passed in 2008 and encourages public water agencies throughout California to adopt conservation rate structures that reward consumers who conserve water. AB 2882 clarifies the allocation-based rate structures and establishes standards that protect consumers by ensuring a lower base rate for those who conserve water.

Sustainable Groundwater Management Act

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA) (Water Code §10720 et seq.). SGMA requires that groundwater basins designated by the state Department of Water Resources (DWR) as high priority and/or critically overdrafted must be managed under a Groundwater Sustainability Plan (GSP) that avoids “undesirable results” as defined in the Act within 20 years from January 31, 2020. The GSP must be developed by a Groundwater Sustainability Agency (GSA) approved by the DWR. The DWR has designated the Madera Subbasin as high priority and critically overdrafted, and SGMA requires that a GSP be adopted by an approved GSA for the subbasin by January 31, 2020.

Senate Bills 610 (Chapter 643, Statutes of 2001) and 221 (Chapter 642, Statutes of 2001)

SB 610 and SB 221 are companion measures that seek to promote more collaborative planning among local water suppliers and cities and counties. They require that water supply assessments occur early in the land use planning process for all large-scale development projects. If groundwater is the supply source, the required assessments must include detailed analyses of historic, current, and projected groundwater pumping and an evaluation of the sufficiency of the groundwater basin to sustain a new project's demands. They also require an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries. In addition, the supply and demand analysis must address water supplies during single and multiple dry years presented in five-year increments for a 20-year projection. Under SB 221, approval by a city or county's legislative body of a subdivision of more than 500 homes requires an affirmative written verification of a sufficient water supply.

California Drought Regulations

Beginning in January 2014, Governor Jerry Brown issued three Executive Orders (EOs), B-26-14, B-28-14, and B-29-15, regarding water supply, water demand, and water use within the State during severe drought conditions. EO B-29-15, issued April 1, 2015, sets limitations not only for existing land uses and water supply systems, but also for new construction. Some of these restrictions include:

- The Water Board shall prohibit irrigation with potable water of ornamental turf on public street medians.
- The Water Board shall prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems.
- The California Energy Commission shall adopt emergency regulations establishing standards that improve the efficiency of water appliances, including toilets, urinals, and faucets available for sale and installation in new and existing buildings.

In addition, EO B-29-15 requires that DWR update the State Model Water Efficient Landscape Ordinance through expedited regulation by the end of 2015. This ordinance will increase water efficiency standards for new and existing landscapes through more efficient irrigation systems, greywater usage, onsite storm water capture, and by limiting the portion of landscapes that can be covered in turf (EO B-29-15, Increase Enforcement Against Water Waste, Action #11, 2015).

On November 13, 2015, Governor Brown issued EO B-36-15, which upheld the previous EOs, and directs the SWRCB to extend urban water use restrictions through October 31, 2016 based on drought conditions known through January 2016. The SWRCB issued emergency regulations on February 2, 2016, in compliance with EO B-36-15. These emergency regulations maintain the current tiers of

required water reductions; however, additional adjustments in response to stakeholders; equity concerns were included in the emergency regulations.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the Act as it stands today governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA is an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the EPA to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the federal program.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000, and beyond. Solid waste plans are required to explain how each city's AB 939 plan will be integrated with the respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal.

Local Regulations

City of Madera General Plan

The following lists policies and implementing actions from the City of Madera General Plan pertaining to utilities that are applicable to the Project.

Policy CON-3 The City supports natural groundwater recharge and new groundwater re charge opportunities through means such as:

- Developing a comprehensive groundwater recharge program to be applied in conjunction with new development.

- Increasing the area on developed sites into which rainwater can percolate.
- Providing areas where rainwater and other water can collect and percolate into the ground.
- Providing for groundwater recharge in storm drainage facilities.
- The use of reclaimed water to recharge the groundwater table.

Policy CON-4 The City will coordinate water resource management planning with other conservation planning efforts, such as those related to open space, park land, and agricultural preservation.

Policy CON-5 To reduce the need for groundwater, the City encourages water conservation and the use of reclaimed water.

Policy CON-6 Where feasible, the installation of pipelines in new developments to carry existing or future supplies of reclaimed water for irrigation and other uses shall be required.

Policy CON-7 The City encourages the use of gray water systems, and other water re-use methods in new development and renovation projects as consistent with state and local water quality regulations.

Policy CON-8 The City encourages Low Impact Development practices in all residential, commercial, office, and mixed-use discretionary projects and land division projects to reduce, treat, infiltrate, and manage runoff flows caused by storms, urban runoff, and impervious surfaces. Low impact development practices may include:

- Use of small-scale stormwater controls such as bioretention, grass swales and channels, vegetated rooftops, rain barrels and cisterns.
- Reduction of impervious surfaces through site design and use of pervious paving materials.
- Retention of natural features such as trees and ponds on site.
- The use of drought tolerant plant materials and/or water-conserving irrigation systems.

- Policy CON-11 The City shall protect and maintain water quality for the health of all users, including natural plant and animal communities.
- Policy CI-45 The City will assist developers who construct facilities consistent with this General Plan and with the City's Master Plans and policies with seeking a fair share reimbursement from later developments when they connect to, and/or benefit from, those facilities.
- Policy CI-47 All major development projects shall identify the size and cost of all infrastructure and public facilities and identify how the installation and long-term maintenance of infrastructure will be financed consistent with the policies in this General Plan.
- Policy CI-48 To improve the appearance of the City's commercial and residential neighborhoods, the City will require that all utility lines be placed underground in conjunction with new development projects, unless determined by the City to be infeasible. Additionally, the City will seek to place existing above ground utility lines underground in the parts of the City which have been largely built-out.
- Policy CI-52 All new residential development shall be required to annex into City of Madera Community Facilities District 2005-01, or any subsequent CFD created in its place. The purpose of the CFD is to collect special assessments from new residential development to offset the cost of providing eligible municipal services to that development.
- Policy CI-53 Water supply and delivery systems shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City's satisfaction.
- Policy CI-57 Development projects shall be served by a looped water system, whereby no less than two separate water mains (or ideally two water sources) are connected, thereby enabling adequate fire flow to be maintained should one water main be removed from service. The City may allow development to proceed without connection to a looped water system when it determines that such connection is infeasible based on the specific circumstances associated with the project, and where a water system analysis shows sufficient fire flow is available.
- Policy CI-58 Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City's satisfaction.

- Policy CI-62 The City will promote solid waste source reduction, reuse, recycling, composting and environmentally-safe transformation of waste. The City will seek to comply with the requirements of AB 939 with regard to meeting state mandated targets for reductions in the amount of solid waste generated in Madera.
- Policy CI-63 The City itself will be a leader in promoting waste reduction and recycling through a variety of means when feasible, including:
- Adopting requirements for the use of recycled base materials (e.g., recycled raw batch materials, rubberized asphalt from recycled tires, and other appropriate materials), if practicable, in requests for bids for public roadway construction projects.
 - Procurement policies and procedures, which facilitate purchase of recycled, recyclable, or reusable products and materials where feasible.
 - Requiring contractors to provide products and services to the City, including printing services, demonstrating that they will comply with the City's recycled materials policies.
- Policy CI-64 The City supports efforts to provide solid waste resource recovery facilities and household hazardous waste collection facilities convenient to residences, businesses, and industries.
- Policy CI-65 The City will promote waste diversion and material recycling in private development, business and operations, and will encourage businesses or nonprofit entities to provide source reduction services.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

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

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

Impacts and Mitigation Measures

Impact 3.16-1: *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 intends to provide a well-planned community with a mix of uses for the residents of the City of Madera in an area planned for urban development. Implementation of the Project would include up to 1,542 residential units and 612,235 square feet of mixed use, commercial, and public/semi-public development on the site. The Project will require that utilities be extended to serve the proposed development, including water (new well), wastewater, stormwater, electric power, and telecommunications facilities. No natural gas will be installed with Project implementation.

Wastewater / Sewer

As discussed herein, once annexed into the City, the Project site would be located within the service area of the existing City of Madera Wastewater Treatment Plant (WWTP). Since the WWTP is considered a publicly owned treatment facility, operational discharge flows treated at the WWTP would be required to comply with applicable water discharge requirements issued by the Regional Water Quality Control Board (RWQCB). Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the RWQCB would ensure that wastewater discharges coming from the Project site and treated by the WWTP system would not exceed applicable Central RWQCB wastewater treatment requirements.

The City of Madera Sanitary Sewer System Master Plan⁹ identified the need for an additional sewer trunk line running down Road 23 (Road 23 Trunk) to connect to the WWTP. The Road 23 Trunk will be a 30-inch line that connects to a 48-inch line running parallel to an existing 48-inch pipe on Avenue 13. Both 48-inch pipelines will connect to the existing WWTP. The 30-inch line will be approximately 16,000 (about 8,000 at the Avenue 14 ½ tie-in) linear feet (lf) and the parallel 48-inch pipe will be approximately 8,000. The new line will not be constructed until demand is met. It was determined that there is sufficient capacity to temporarily tie into the Westberry Boulevard Sewer Line (Westberry Trunk) until the Road 23 Sewer Trunk Line is installed. This is supported by a report from Akel Engineering, the City's consultant for their sewer master plan. The report dated December 21, 2023, and titled Sewer System Hydraulic Analysis for Granite Creek Subdivision, analyzed the possibility for the first 345 lots of the Granite Creek Development to be accommodated by the Westberry Trunk. The report indicated that the extra capacity is due in part to greater water use efficiency since the adoption of the 2014 Sewer System Master Plan. Other pipelines are subject to on-going study and design.

To direct sewer flows to the Westberry Trunk, either a temporary lift station, reduced sewer slopes, or dirt fill will be utilized for the Plan area. Should a lift station be installed, it would be placed along Avenue 14 ½, on the east side of the development area, near the entrance to the initial first 345 lots. Upon the installation of the Road 23 Trunk, Granite Creek would be required to reverse sewer flows to the Road 23 Trunk and remove the temporary lift station. The environmental impacts of the sewer infrastructure described herein have been analyzed in the City's General Plan Update Draft EIR, SCH# 2007121153, where impacts were found to be less than significant. In addition, a new lift station on Avenue 14 ½ is being studied by the City to assess options in this area.

The entire Project site is estimated to generate 187,000 gallons per day (gpd) of wastewater flows. Assuming seven percent inflow and infiltration, the total generated wastewater is expected to be about 200,000 gpd. The impact is determined to be less than significant. See also Response 3.19-3, below, which describes the Project's wastewater demands/characteristics and the City's capacity to handle those demands/characteristics.

⁹ City of Madera Sewer System Management Plan. July 2020. Akel Engineering.
https://www.madera.gov/media/lqui0dji/madera_2020_ssmp_final_adoption_december2020.pdf.
 Accessed February 2026.

Stormwater

As discussed in Section 3.9 - Hydrology and Water Quality, the Project would result in new impervious areas associated with site improvements and would therefore require new storm water drainage facilities. The Project would install a storm water basin which will be a dual-use basin that will have a park area and a low flow area. The low flow area will have enough capacity so that a 2-year storm event can be retained without utilizing storage from the park area. The park area will only be used for storage during other major storm events. Approximately 54 acre-feet will be required to store the anticipated runoff generated from the Project area during a 100-year major storm event, while 14 acre-feet will be needed to store the 2-year storm event flows.

A smaller temporary basin will be constructed for the initial 345 units at the same location and will be gradually expanded as development occurs. The ultimate basin design will be constructed at full buildout or when conditioned by the City.

The storm water basin would be in compliance with the City of Madera Development Standards. No new off-site stormwater infrastructure construction is required. See Section 3.9-3 for further discussion regarding storm water facilities.

Water Supply

As discussed in Section 3.10 - Hydrology and Water Quality, the proposed Project will add demand for water to the City of Madera water system, which is reliant on groundwater to serve its customers. The City of Madera adopted their 2020 UWMP Update in September 2022 which includes the City's future water demands for future developments within the existing city limits, as well as future developments within future service areas currently outside the existing city limits. Currently, the Project is not within the City limits and only half of the area is within the SOI. Therefore, the Project is not included in the 2020 UWMP Update and requires an additional demand.

The Project's indoor water demand is calculated at 267,210 gpd (equivalent to 299.28 afy), and the outdoor water demand is calculated at 21,882 gpd (equivalent to 24.51 afy). The total water demand for this Project is calculated at 289,092 gpd (equivalent to 323.78 afy).¹⁰ The total water demand of the development and the 2020 UWMP Update is calculated at 14,870 afy by 2025. The UWMP Update does not include projections for the year 2045; however, based on the average

¹⁰ Ibid, pages 6 & 7.

annual changes between 2025 and 2040, the total projections (including the Granite Creek development) are assumed to be 17,278 afy by 2045.¹¹

The supply total is assumed to match the demand total since groundwater pumping will operate to meet demands per 2020 UWMP Update. According to the City's UWMP, the City's water supply has historically been very consistent, due in large part to the reliability of the groundwater aquifer, and it is anticipated this will continue into the future.¹² It is anticipated that supplies would be available from the aquifer to meet demands, even during a prolonged drought.¹³ Therefore, the City's total projected water supply availability during normal, single-dry, and multiple-dry water years will meet the projected water demand for the Project over the next 20 years (through 2045)¹⁴. Therefore, the Project will not decrease groundwater supplies beyond what was anticipated in the 2020 UWMP or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

The Project is subject to water use reduction methods and will be subject to water service impact fees. Per the City of Madera Water System Master Plan, adopted by City Council on November 19, 2014 via Resolution No. 14-212, the Project will be required to install master planned water mains on Avenue 14 ½: a 12-inch between Road 23 ½ and Buena Posada Drive, and an 18-inch water main between Road 23 and Road 23 ½. An 18-inch water main will also be required to be installed in the westerly boundary of the Project and will tie-in to the Villages at Almond Grove Development, located to the north. Additionally, a new domestic well will be constructed per the Madera County Environmental Health Division regulations and will be connected to the City's existing system when the utility infrastructure is installed. The well will then be dedicated to the City. Construction of this well was accounted for in the City's 2020 Urban Water Management Plan.

The Project will comply with the California Green Building Code standards, which requires residential and nonresidential water efficiency and conservation measures for new buildings and structures that will reduce the overall potable water use inside the building by 20 percent. The Project will be required to install ultra-low flow fixtures and appliances. All development within the Project area will be required to install water meters at all service connections. The City will

¹¹ Ibid, page 7.

¹² City of Madera UWMP 2020 Update, page ES-5. <https://www.madera.gov/wp-content/uploads/2023/05/City-of-Madera-Urban-Water-Management-Plan-2020-Update.pdf>. Accessed April 2026.

¹³ Ibid. Page ES-6. Accessed April 2026.

¹⁴ Ibid, page 10.

assess service charges based on volumetric rates and/or tiered rates, which encourages reasonable water use. In addition, it is expected that the City will condition the Project to seek recycled water that will be supplied to open space areas and front/back yards. See Section 3.19-2 for further discussion regarding water supply.

Dry Utilities (Electricity and Telecommunications)

The Project will be required to access public utilities for electric power. Power will be provided to the Project area by Pacific Gas and Electric Company (PG&E). The location and alignment of future electrical lines will be determined by PG&E based on the required electrical loads and existing capacity of surrounding infrastructure and will be placed underground per City standard. The Project will require connection to communications networks (e.g. AT&T, Verizon, T-Mobile, Sprint), television and internet (e.g. AT&T, Xfinity, HughsNet). The Project is within the service area of these providers and it is expected that they can serve the Project. No new off-site telecommunications infrastructure construction is required.

Solid Waste

The Project will require solid waste disposal services. The City of Madera contracts with Mid Valley Disposal to provide residential and commercial trash, recycling, and green waste services throughout the community. As identified in the County of Madera's Solid Waste Management Study, the Fairmead Landfill, under baseline conditions, has sufficient capacity (23 million cubic yards) to accommodate solid waste disposal demands through year 2059.¹⁵ The County's Solid Waste Management Study states that the County is responsible for solid waste management within the unincorporated portions of the County.

The Project would be required to comply with applicable State and local regulations, including regulations pertaining to disposal of recyclable materials. With adequate landfill capacity at the Fairmead Landfill and compliance with regulations, a less than significant impact would occur. No new off-site solid waste infrastructure construction is required. Refer to Response 3.19-4 for more information pertaining to solid waste.

Impact Determination

¹⁵ County of Madera, Solid Waste Management Study, March 1, 2024. Page 4.

<https://static1.squarespace.com/static/6413cecfdfaca617da840357/t/65e9d71a2c64665f058b6693/1709823779511/Madera+County+SW+M+System+Assessment+Report+Final+3.1.24.pdf>. Accessed June 2025.

Thus, as described above, the Project's impacts associated with acquisition of, and/or expansion of utilities would be less than significant.

Mitigation Measures:

None are required.

Impact 3.19-2: *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less Than Significant. The Project would add demand for potable water to the City of Madera water system, which is reliant on groundwater to serve its customers. The information herein is based, in part, on the SB 610 Water Supply Assessment that was prepared for the Project (Appendix H).

As discussed in Section 3.9-2 - Hydrology and Water Quality (and summarized in this section), the City of Madera adopted its 2020 UWMP Update in September 2022 which includes the City's future water demands for future developments within the existing City limits, as well as future developments within future service areas currently outside the existing City limits. Currently, the Project is not within the City limits and only half of the area is within the SOI. Therefore, the Project is not included in the 2020 UWMP Update and requires an additional demand.

As detailed in Table 3.9-1, the Project's indoor water demand is calculated at 267,210 gpd (equivalent to 299.28 afy), and the outdoor water demand is calculated at 21,882 gpd (equivalent to 24.51 afy). The total water demand for this Project is calculated at 289,092 gpd (equivalent to 323.78 afy).¹⁶ The total water demand of the development and the 2020 UWMP Update is calculated at 14,870 afy by 2025. The UWMP Update does not include projections for the year 2045; however, based on the average annual changes between 2025 and 2040, the total projections (including the Granite Creek development) are assumed to be 17,278 afy by 2045.¹⁷

The supply total is assumed to match the demand total since groundwater pumping will operate to meet demands per 2020 UWMP Update. According to the City's UWMP, the City's water supply has historically been very consistent, due in large part to the reliability of the groundwater

¹⁶ Ibid, pages 6 & 7.

¹⁷ Granite Creek Water Supply Assessment (2025),, page 7.

aquifer, and it is anticipated this will continue into the future.¹⁸ It is anticipated that supplies would be available from the aquifer to meet demands, even during a prolonged drought.¹⁹ Therefore, the City's total projected water supply availability during normal, single-dry, and multiple-dry water years will meet the projected water demand for the Project over the next 20 years (through 2045)²⁰. Therefore, the Project will not decrease groundwater supplies beyond what was anticipated in the 2020 UWMP or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. The impact is determined to be *less than significant*.

Mitigation Measures:

None are required.

Impact 3.19-3: *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. The City of Madera owns and operates a Wastewater Treatment Plant located at 13048 Road 21 ½, southwest of the City. The WWTP receives wastewater from residential, commercial, and industrial sources. The WWTP is a fully enclosed facility (e.g., tanks, concrete-lined facilities of limited areal extent), which consists of an influent lift station and headworks, three primary clarifiers, three oxidation ditches, four secondary clarifiers, two primary digesters, one secondary digester, two centrifuges, and 15 evaporation/percolation ponds. The total disposal pond acreage totals 320 acres.²¹

¹⁸ City of Madera UWMP 2020 Update, page ES-5. <https://www.madera.gov/wp-content/uploads/2023/05/City-of-Madera-Urban-Water-Management-Plan-2020-Update.pdf>. Accessed April 2026.

¹⁹ Ibid. Page ES-6. Accessed April 2026.

²⁰ Granite Creek Water Supply Assessment (2025), page 10.

²¹ State of California Regional Water Quality Control Board, Central Valley Region. Waste Discharge Requirements Order R5-2022-0074, for Madera WWTF, Existing Facility and Discharges. https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/madera/r5-2022-0074_wdrs.pdf. Accessed June 2025.

Existing City of Madera Wastewater (Sewer) Demands

Wastewater is collected throughout the City via a network of sanitary sewer collection pipelines ranging from 8 to 48 inches in diameter. With the aid of five sewer lift stations, the influent is gravity-fed to the WWTP. The WWTP was constructed in 1972 and provides primary and secondary treatment without disinfection. A plant expansion and upgrade were completed in 2007, which resulted in a treatment capacity of 10.1 MGD.²²

There are approximately 13,000 residential wastewater connections, each typically with a 4-inch sewer service connecting to the main. Commercial and industrial customers number just over 1,000 and are connected with service lines appropriate to handle their particular wastewater load. The average daily wastewater volume for 2020 was estimated to be approximately 5.1 MGD.²³ Based on the City's existing capacity to process up to 10.1 million gallons per day, there is additional capacity to handle approximately 5 million gallons per day of additional wastewater.

Project Wastewater (Sewer) Demands

The entire Project site is estimated to generate 187,000 gallons per day (gpd) of wastewater flows. Assuming seven percent inflow and infiltration, the total generated wastewater is expected to be about 200,000 gpd.

Wastewater Characteristics

The City's WWTP treats municipal wastewater generated throughout the City to meet treatment standards and discharge requirements established by the RWQCB. These requirements are outlined in the City's Waste Discharge Requirements (WDR) order No. R5-2022-0074. The wastewater routed to the WWTP includes all residential, commercial and industrial wastewater generated within the City service area.

The Project would generate wastewater with similar characteristics to discharge produced by other uses in the City, including similar in content to the residential and commercial land uses in the immediate area (typical residential wastewater from toilets, sinks, showers, etc.). Wastewater generated by the Project would be collected and treated at the City's WWTP. Because of the nature of the Project's wastewater, and the fact that the WWTP is currently in compliance with their

²² City of Madera: 2020 Urban Water Management Plan Update. Section Six: System Supplies. Page 6-9. <https://www.madera.gov/wp-content/uploads/2023/05/City-of-Madera-Urban-Water-Management-Plan-2020-Update.pdf>. Accessed June 2025.

²³ Ibid.

Waste Discharge Requirements, the Project will not cause the City to exceed any wastewater treatment requirements from the RWQCB.

Project Comparison to City-wide Future Estimated Wastewater Production

The City's existing WWTP has capacity to process up to 10.1 MGD of wastewater. According to the City's UWMP, the WWTP processed approximately 5.1 MGD in Year 2020, leaving approximately 5.0 MGD of additional capacity. The Project would conservatively add about 200,000 gpd (0.17 MGD), or approximately 3.4% of the existing available capacity. Refer to Table 3.16-3 for the breakdown of WWTP capacity compared to estimated Project wastewater generation.

**Table 3.16-3
WWTP Wastewater Capacity and Project Wastewater Generation**

WWP Capacity (MGD)	Year 2020 Wastewater Generation per day (MGD)	Additional WWTP Wastewater Capacity Without Granite Creek (MGD)	Project Wastewater Generation (MGD)	Additional WWTP Wastewater Capacity With Granite Creek (MGD)
10.1	5.1	5.0	0.17	4.83

Based on the WWTP's existing capacity of 5.0 MGD, the WWTP can adequately serve the Project in addition to other growth/development in the City.

In addition, and as identified in Section 3.14 – Population and Housing of the Initial Study (see Appendix A), the Project's anticipated number of additional residents (5,212) is within the expected range of growth that was planned for and can be accommodated by the City. The City's infrastructure planning documents (such as the Sewer Master Plan) rely, in part, on the growth projections contained in the City's General Plan.

Although the City's WWTP has adequate capacity to serve the Project, the Project would be required to pay wastewater (sewer) impact fees prior to the issuance of a building permit, thereby offsetting the costs associated with acceptance of the Project wastewater. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Thus, the impact is *less than significant*.

Mitigation Measures:

None are required.

Impact 3.16-4: *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. The Project will require solid waste disposal services. The City of Madera Solid Waste Division provides all residential customers with solid waste and greenwaste services. There are several recycling companies in Madera that accept beverage containers and other recyclables. In 2008, the City also launched a “blue can” curbside recycling system, making it easier for Maderans to recycle paper, bottles, cans, and other recyclables. Computer monitors and television sets containing hazardous waste are accepted at the Fairmead Landfill in Chowchilla. The landfill also accepts many recyclables free of charge, and some at reduced rates. There are several locations in Madera County to recycle used motor oil and filters.²⁴

Regionally, the County has issued exclusive franchise agreements with Red Rock Environmental Group and Emadco Disposal Services to provide waste hauling services to the constituents of Madera County, including residential, commercial, and construction/demolition. The waste collection services are divided into two areas; Valley Area (below 1000' elevation) and Mountain Area (above 1000' elevation). Two disposal locations are open to the public for self-hauling and commercial franchises; the Fairmead Landfill and the North Fork Transfer Station. Both facilities are owned by the County and operated under contract with the Red Rock Environmental Group.²⁵

As identified in the County of Madera’s Solid Waste Management Study, the Fairmead Landfill, under baseline conditions, has sufficient capacity (23 million cubic yards) to accommodate solid waste disposal demands through year 2059.²⁶ The County’s Solid Waste Management Study states that the County is responsible for solid waste management within the unincorporated portions of the County.

²⁴ Ibid.

²⁵ Madera County, Solid Waste Management. <https://www.maderacounty.com/government/public-works/solid-waste-management>. Accessed June 2025.

²⁶ County of Madera, Solid Waste Management Study, March 1, 2024. Page 4. https://static1.squarespace.com/static/6413cecfdfaca617da840357/t/65e9d71a2c64665f058b6693/1709823779511/Madera+County+SWM+System+Assessment+Report_Final+3.1.24.pdf. Accessed June 2025.

Project Construction

Construction of the Project would generate solid waste in the form of construction debris that would need to be disposed of at local landfills. Construction debris includes concrete, asphalt, wood, drywall, metals, and other miscellaneous and composite materials. Much of this material would be recycled and salvaged to the maximum extent feasible. Materials not recycled would be disposed of at local landfills. The Project site is currently undeveloped and would not require any demolition.

Site preparation (vegetation removal and grading activities) and construction activities would generate construction debris, including wood, paper, glass, plastic, metals, cardboard, and green wastes. Most of the solid waste generated by the construction phase of the Project would be recycled in accordance with AB 939. Construction activities could also generate hazardous waste products. The waste generated would result in an incremental and intermittent increase in solid waste disposal at local landfills. However, with compliance with federal, State, and local statutes or regulations, a less than significant impact would occur.

Project Operation

The City of Madera Solid Waste Division provides all residential customers with solid waste and greenwaste services.

As identified in the County of Madera's Solid Waste Management Study, the Fairmead Landfill, under baseline conditions, has sufficient capacity (23 million cubic yards) to accommodate solid waste disposal demands through year 2059.²⁷ Additionally, upon closure of the Fairmead Landfill, or sooner should the City desire, solid waste would be sent to other available landfills that would be in operation beyond 2027 (e.g., City of Clovis Landfill has permitted capacity through year 2047 and accepts waste from areas outside the City of Clovis). In addition, subsequent development under the proposed General Plan Update would be subject to City source reduction provisions.²⁸

The proposed Project would result in similar urban development to other areas of the City (single-family and multi-family housing, commercial, and recreational facilities), it is likely that the Project would produce waste at a similar rate. According to CalRecycle, California has a per

²⁷ County of Madera, Solid Waste Management Study, March 1, 2024. Page 4.
<https://static1.squarespace.com/static/6413cecfdfaca617da840357/t/65e9d71a2c64665f058b6693/1709823779511/Madera+County+SW+M+System+Assessment+Report+Final+3.1.24.pdf>. Accessed June 2025.

²⁸ City of Madera General Plan Update, Draft Environmental Impact Report. May 2009. 4.12 Public Services and Utilities.
<https://www.madera.gov/wp-content/uploads/2018/01/Draft-EIR.pdf>. Accessed June 2025.

resident disposal rate of 6.3 pounds/resident/day.²⁹ Based on an anticipated Project population of 5,119 persons at full buildout, the Project would produce approximately 32,249.7 pounds per day (or approximately 16.1 tons per day). This equates to approximately 0.008 cubic yards/resident/day. With 5,119 persons at full buildout, the Project would produce approximately 40.95 cubic yards per day or 14,946 cubic yards per year. This represents approximately 0.0006% of the remaining capacity of the landfill. Because the Madera County Solid Waste Division has indicated it has existing and future capacity, the Project would not result in a significant impact. In addition, the Project would be required to comply with applicable State and local regulations, including regulations pertaining to disposal of recyclable materials. With adequate landfill capacity at existing landfills and compliance with regulations, a *less than significant* impact would occur.

Mitigation Measures: None are required.

Impact 3.16-5: *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less Than Significant. See Response to Impact 3.16-4. The Project would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste and impacts would be *less than significant*.

Mitigation Measures: None are required.

Cumulative Impacts

Dry Utilities

Less Than Cumulatively Considerable. The Project will be required to access public utilities for electric power. Power will be provided to the Project area by Pacific Gas and Electric Company (PG&E). The location and alignment of future electrical lines will be determined by PG&E based on the required electrical loads and existing capacity of surrounding infrastructure. PG&E regularly undertakes upgrades and expansions, as needed, throughout their service area to continue to provide reliable electricity service and conducts their own CEQA review on these projects. Additionally, PG&E and telecommunication providers are required to comply with applicable federal, State, and local

²⁹ CalRecycle website: <https://calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/>. Accessed April 2026.

regulations that govern utility infrastructure planning, construction, and environmental protection. These requirements ensure that cumulative impacts are minimized and that the infrastructure is expanded in a coordinated and environmentally responsible manner. The Project site is within the City's established Urban Area Boundary and as such, urbanization is expected and planned for. Cumulative impacts related to electrical facilities would be *less than significant*.

Water Supply

Less Than Cumulatively Considerable. As noted in Section 3.9 Hydrology and Water Quality, the City of Madera is part of the City of Madera Groundwater Sustainability Agency (CMGSA). The Project, if approved, would become under the jurisdiction and purview of the City's water system which is subject to the Madera Subbasin Joint Groundwater Sustainability Plan (MJGSP). The City of Madera utilizes groundwater as its sole source of potable water. As identified herein and in the SB 610 Water Supply Assessment provided in Appendix E, the City's total water supplies are sufficient to meet the City's water demands with the addition of the Project under different water years. In the event of a water shortage, the City has outlined their response levels and respective conservation targets, as well as the specific actions that will be taken to meet that criteria. When existing conditions (stage 1) become strained, the conservation target grows from stage 2 through stage 4 where there would be a 5-10%, 10-35%, and 35-50% decrease in water usage, respectively. Actions to meet the conservation target include limits on when and what kind of water usage is permissible.

The City's total projected water supply availability during normal, single-dry, and multiple-dry water years will meet the projected water demand for the Project over the next 20 years (through 2045), as detailed in Chapter 3.9, in Section 3.19-2, and in the Water Supply Assessment provided as Appendix E. Therefore, with compliance with the GSP and implementation of water-reduction measures required, the Project would not result in cumulatively considerable significant impacts to groundwater supplies in the Basin. Cumulative impacts related to water supply are *less than significant*.

Wastewater

Less Than Cumulatively Considerable. The geographical area for considering cumulative impacts associated with wastewater (sewer) is the geographic area covered by the City's WWTP. As with the Project, for future projects, the City collects development impact fees to help cover the cost of wastewater (sewer), water, and solid waste infrastructure and facilities. In addition, revenue from sales tax from future projects assists in maintaining these services. The City evaluates impact fees

from new development on a project-by-project basis. The Project would be required to pay sewer impact fees prior to the issuance of a building permit. Other projects in the vicinity would be required to offset substantial increases in wastewater per City impact fees. Therefore, cumulative impacts related to wastewater would be *less than significant*.

Solid Waste

Less Than Cumulatively Considerable. The geographical area for considering cumulative impacts associated with solid waste is Madera County, which is serviced by the Madera County Solid Waste Division. The Project would generate a minimal amount of waste during construction and is not expected to significantly impact Madera County landfills. However, generation of waste from cumulative projects, including other residential, commercial and industrial development could result in a cumulative impact. As described herein, there is adequate existing and future (planned) capacity at existing Madera County landfills. As such, the cumulative impacts are *less than significant* for solid waste.

PROJECT ALTERNATIVES

4.1 Introduction

CEQA Guidelines Section 15126.6 requires the consideration of a range of reasonable alternatives to the proposed project that could feasibly attain most of the objectives of the proposed project. The Guidelines further require that the discussion focus on alternatives capable of eliminating significant adverse impacts of the project or reducing them to a less-than significant level, even if the alternative would not fully attain the project objectives or would be more costly. According to CEQA Guidelines, the range of alternatives required in an EIR is governed by the “rule of reason” that requires an EIR to evaluate only those alternatives necessary to permit a reasoned choice. An EIR need not consider alternatives that have effects that cannot be reasonably ascertained and/or are remote and speculative.

The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

CEQA Guidelines §15126.6(e) identifies the requirements for the “No Project” alternative. The specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (see Section 15125).

Alternative locations can also be evaluated if there are feasible locations available. Each alternative is evaluated against the Project objectives and criteria established by the Lead Agency.

The Project has the potential to have significant adverse effects on:

- Air Quality – Conflict with Plan, Result in Increased Criteria Pollutants and Expose Sensitive Receptors to Substantial Pollutant Concentrations (project and cumulative level)

Even with the mitigation measures described in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, of this EIR, impacts in this issue area would be significant and unavoidable. Therefore, per the State CEQA Guidelines, this section discusses alternatives that are capable of avoiding or substantially lessening effects on these resources. The significant and unavoidable impacts of the project are discussed below.

4.2 Project Objectives

The Granite Creek Plan Area is designed and intended to implement a series of objectives with corresponding goals and policies that will promote quality residential development. The Plan Area is intended to meet the vision of the City of Madera General Plan and further refine the guiding and implementation policies. In accordance with CEQA Guidelines Section 15124(b), the following are the City of Madera's Project objectives:

- To provide housing opportunities with a range of densities, styles, sizes and values that will be designed to satisfy existing and future demand for quality housing in the area.
- To assist the City in meeting its state-mandated Regional Housing Needs Allocation by providing up to 1,542 new residential units, thereby contributing to the City's Housing Element goals and supporting the City's obligation to maintain an adequate inventory of sites suitable for residential development.
- To locate residential units in close proximity to employment centers and commercial services to reduce vehicle miles traveled and support regional greenhouse gas reduction goals.
- To provide a sense of community and walkability within the development through the use of street patterns, a park, landscaping and other project amenities.
- To create a pedestrian-friendly environment with integrated trail systems and bicycle infrastructure to provide recreational opportunities near the Fresno River.
- To phase development and infrastructure to respond to marked demand while requiring infrastructure and public facilities necessary to serve the project's needs.
- To develop a mix of retail, commercial, and civic uses in an area planned for development, to create a lively "sense of place," and provide a fiscally neutral or positive impact on the City.

4.3 Alternatives Considered in this EIR

- No Project

- Alternate Location #1
- Alternate Location #2
- Reduced Footprint and Density (50%) Project
- Increased Residential and Decreased Commercial Development Project
- Decreased Residential and Increased Commercial Development Project

4.4 Analysis Format

In accordance with CEQA Guidelines Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the project. Furthermore, each alternative is evaluated to determine whether the project objectives identified in Chapter 2 - Project Description, of this Draft EIR would be mostly attained by the alternative. The Project's impacts that form the basis of comparison in the alternatives analysis are those impacts which represent a conservative assessment of project impacts. The evaluation of each of the alternatives follows the process described below:

- a) The net environmental impacts of the alternative after implementation of reasonable mitigation measures are determined for each environmental issue area analyzed in this EIR.
- b) Post-mitigation significant and less than significant environmental impacts of the alternative and the project are compared for each environmental issue area as follows:
 - Less: Where the impact of the alternative after feasible mitigation would be clearly less adverse than the impact of the project, the comparative impact is said to be "less."
 - Greater: Where the impact of the alternative after feasible mitigation would be clearly more adverse than the impact of the project, the comparative impact is said to be "greater."
 - Similar: Where the impacts of the alternative after feasible mitigation and the project would be roughly equivalent, the comparative impact is said to be "similar."
- c) The comparative analysis of the impacts is followed by a general discussion of whether the underlying purpose for the project, as well as the project's basic objectives would be substantially attained by the alternative.

4.5 Project Alternatives Impact Analysis

Alternatives Considered But Rejected

CEQA Guidelines Section 15126.6(a) states that, “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic project objectives but would substantially lessen any of the significant effects of the project,” and specifies that, “An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives which are not feasible.” CEQA Guidelines Section 15126.6(f)(1) explains that “...factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control or otherwise have access to the alternative sites...” Additionally, CEQA Guidelines Section 15126.6(f)(3) clarifies that, “Alternatives that are considered remote or speculative, or whose effects cannot be reasonably predicted do not require consideration.” Accordingly, the Lead Agency may make an initial determination as to which alternatives are feasible, and, therefore, merit indepth consideration. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet project objectives, are infeasible, or do not avoid any significant environmental effects. The alternatives considered and eliminated from further evaluation are the following:

- Residential Development Only
- Commercial Development Only
- Alternate Sites (Other Than Sites #1 and #2)

For the Residential Development Only and Commercial Development Only alternatives, they were rejected because they don’t meet the most basic Project Objectives for a mixed use commercial and residential development. Additional Alternate Sites were also rejected because they would be similar to Alternate Sites #1 and #2. There would be minimal differences in the environmental impacts between Alternate Sites #1 and #2 and a different alternate site.

No Project Alternative

CEQA Section 15126.6(e) requires the discussion of the No Project Alternative “to allow decision makers to compare the impacts of approving the proposed project with the impacts of not

approving the proposed project.” The No Project scenario in this case consists of retaining the property in its original configuration, with no construction or operation of the proposed Granite Creek Project. Under this alternative, the site remains in agricultural production and no new urban development would occur on the site.

Description

This alternative would avoid both the adverse and beneficial effects of the Project. This alternative would avoid ground disturbance and construction-related impacts associated with construction of the Project. No new development would occur on the site. The No Project Alternative would avoid the generation of any environmental impacts beyond existing conditions.

Environmental Considerations

Continuation of the site in agricultural production would result in all environmental impacts being less than the Project. There would be no changes to any of the existing conditions and there would be no impact to each of the 20 CEQA Checklist evaluation topics. Impacts from the No Project Alternative, as compared to the Project, are summarized as follows:

- **Aesthetics** – With no development, the site would remain primarily as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Agriculture and Forestry Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Air Quality** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project. This Alternative would also eliminate the significant and unavoidable impacts (project and cumulative) associated with this topic from the Project.
- **Biological Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Cultural Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Energy** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Geology/Soils** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Greenhouse Gas Emissions** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.

- **Hazards & Hazardous Materials** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Hydrology & Water Quality** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Land Use / Planning** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Mineral Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Noise** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Population & Housing** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Public Services** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Recreation** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Transportation** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Tribal Cultural Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Utilities & Service Systems** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.
- **Wildfire** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the Project.

Refer to Table 4-1 for a comparison of each environmental topic for the No Project Alternative versus the Project.

Project Objectives

The No-Project Alternative by definition would not meet any of the objectives of the Project that were outlined in Section 4.2, herein.

Alternate Location #1

The environmental considerations associated with an alternative site would be highly dependent on several variables, including physical site conditions, surrounding land use, site access, and suitability of the local roadway network. Physical site conditions include land, air, water,

minerals, flora, fauna, noise, or objectives of historic or aesthetic significance, and would affect the nature and degree of direct impacts, needed environmental control systems, mitigation, and permitting requirements. Surrounding land use and the presence of sensitive receptors would influence neighborhood compatibility issues such as air pollutant emissions and health risk, odor, noise, and traffic. Site access and ability of the local roadway network to accommodate increased traffic without excessive and costly off-site mitigation would be an important project feasibility issue.

The constraint on alternative site selection is the lessening or elimination of significant project impacts. The viability of the Project is dependent on ability to effectively develop a mixed-use project in the Madera area. To maintain most of the project objectives, any potentially feasible alternative site needs to be of adequate size and in a location that is accessible and serviceable (utilities) by the City of Madera.

Description

There are relatively few sites within or adjacent to the City of Madera that provide adequately sized lands suitable for the Project. The criteria for selection included whether or not the alternate site would substantially reduce environmental impacts, availability of land, adequately sized parcels, efficiency of access, and acceptable land use designations/zoning. There are areas of agricultural land of similar size located both south of the Project. These areas could conceivably support the Project and are depicted in the Figure A-1 (Location of Alternative Sites in Relation to Project Site) and A-2 (Alternative Site #1: Approximately 219 Acres). Alternate Site #1 is outside the City limits within the Madera Urban Growth Boundary and is designated for Village Mixed Use; however Alternative Site #1 is outside of the Sphere of Influence. Development of this area would allow for contiguous growth adjacent to existing urban development in the City.

Alternative Site #1 is located northeast of the Project and would be generally bound by Avenue 18 to the north and the railroad to the west.

Figure A-1
Location of Alternative Sites in Relation to Project Site

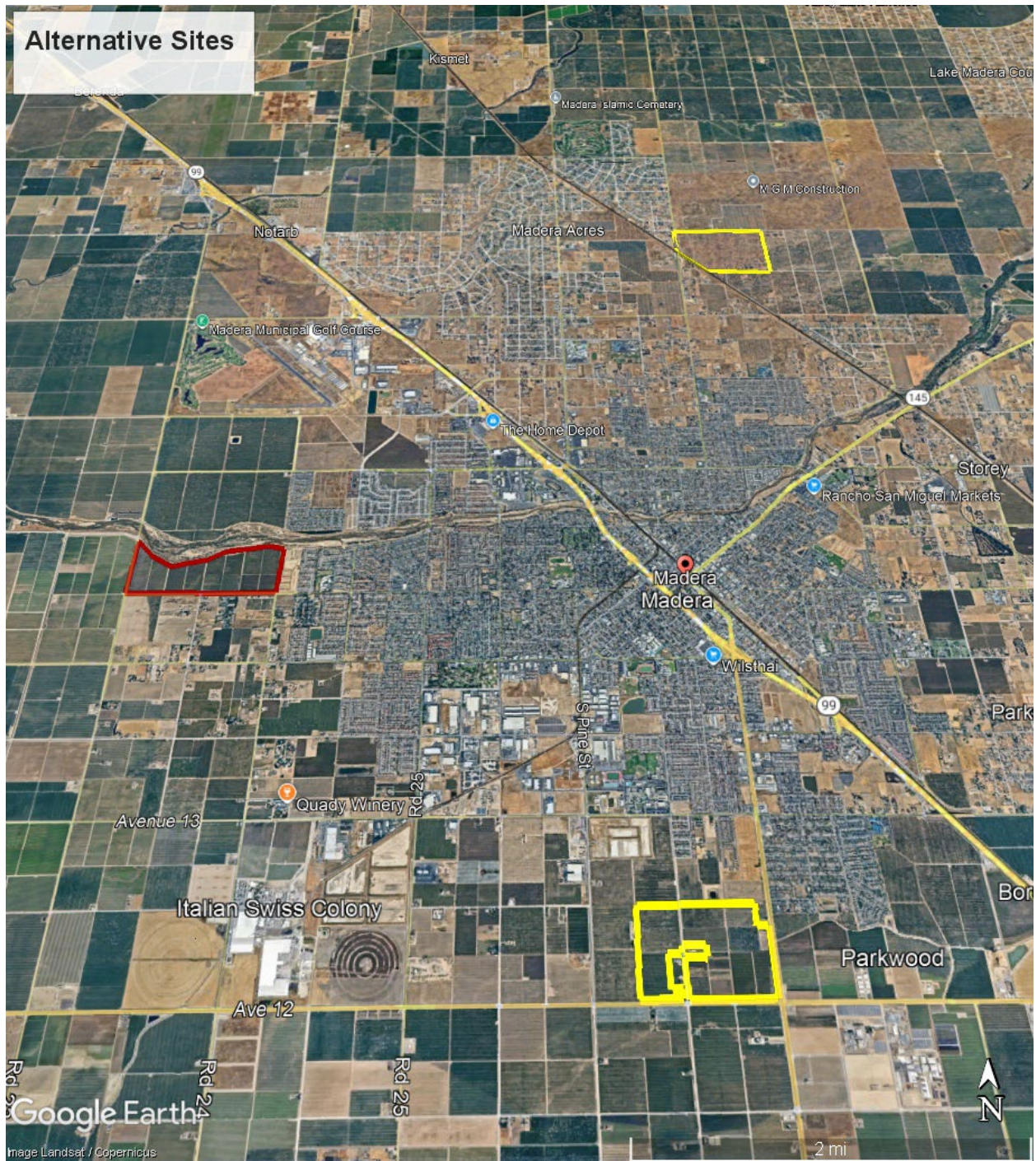


Figure A-2
Alternative Location #1: Approximately 219 Acres



Perhaps the greatest obstacle in selecting an alternative site for the Project is that the Project Applicant does not already own land at this location and/or does not have control of land at this location. However, for purposes of environmental evaluation, a description of potential environmental impacts is provided below.

Environmental Considerations

Development of this alternate site could theoretically meet most of the Project objectives presented earlier in this chapter. However, construction and operation at an alternate site would result in environmental impacts that are likely equal to or in some cases could be greater than the Project. The majority, if not all, of project impacts are likely to occur at an alternate site.

This site would require environmental review once the Applicant has prepared sufficient project description information. The time requirements for these activities would reduce the ability of the Applicant to accommodate projected residential demand in a timely manner compared to the Project. This alternative would be the most complex, costly, and time-consuming alternative to implement. Various engineering and technical studies would then be completed to define the project and its components. Environmental review and obtaining entitlements would follow prior to construction activities. The site identified herein appear to has conditions that are not as favorable as the Project site, such as less acreage and lack of control over the land.

Impacts from the Alternate Location #1, as compared to the Project, is summarized as follows:

- **Aesthetics** – With development of a similar project on an alternate site, aesthetic impacts would occur through the conversion of farmland to urban uses, introduction of light/glare, and construction of residential units and commercial square footage on agricultural land. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Agriculture and Forestry Resources** – This site is designated for urban uses in the Merced General Plan. As such, similar to the Project, no significant impacts would occur with site development.
- **Air Quality** - With development of a similar project on an alternate site, air quality impacts would occur from construction activities (construction vehicles and equipment, dust and other emissions) and from operational activities (vehicle trip emissions and other emissions from the development). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project. This Alternative would not eliminate the significant and unavoidable impacts associated with conflicting with an

established plan, exposing sensitive receptors to substantial criteria pollutants or resulting in a significant increase in criteria pollutants (at the project and cumulative level).

- **Biological Resources** - With development of a similar project on an alternate site, biological impacts could occur from development of a previously agricultural site to urban uses. Therefore, impacts are similar to the Project.
- **Cultural Resources** - With development of a similar project on an alternate site, cultural resource impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Energy** - With development of a similar project on an alternate site, energy impacts would occur from construction activities (electricity, fuel) and operational activities (electricity, natural gas, fuel). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Geology/Soils** - With development of a similar project on an alternate site, impacts to geology and soils would occur from construction activities (grading and land disturbing activities) and operational activities. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Greenhouse Gas Emissions** - With development of a similar project on an alternate site, greenhouse gas emission impacts would occur from construction activities (construction equipment emissions and vehicle emissions) and operational activities (vehicle emissions). Since this Alternative would be of similar size and scale to the Project, and is approximately the same distance as the Project to urbanized areas of Madera, impacts are determined to be similar to the Project.
- **Hazards & Hazardous Materials** - With development of a similar project on an alternate site, hazardous impacts would occur from construction activities (use and storage of hazardous substances) and operational activities (use and storage of hazardous substances). A database search of the DTSC Envirostor¹ and the State Water Resources Control Board's Geotracker² was conducted for the Alternate site. The searches indicated that no known hazardous waste sites existing on the Alternate site. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

¹ California Department of Toxic Substances Control. Envirostor Database. <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=visalia+ca>. Accessed September 2025.

² California Water Resource Control Board. GeoTracker Database. <https://geotracker.waterboards.ca.gov/map/>. Accessed September 2025.

- **Hydrology & Water Quality** - With development of a similar project on an alternate site, hydrology and water quality impacts would occur from construction activities (water for dust control, requirement for preparation of a SWPPP, drainage control) and operational activities (water demand associated with the development, drainage control). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Land Use / Planning** - With development of a similar project on an alternate site, land use and planning impacts would occur from development of existing agricultural lands to urban uses. The Alternative would not divide an established community. Since this Alternative would be of similar size and scale to the Project (and contains similar pre-zoning and land use designations), impacts are determined to be similar to the Project.
- **Mineral Resources** - With development of a similar project on an alternate site, mineral resource impacts could occur from construction activities (grading and ground-disturbing activities) and operational activities (conversion of land to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Noise** - With development of a similar project on an alternate site, noise impacts would occur from construction activities (construction equipment and vehicles) and operational activities (vehicles, air conditioners, televisions, radios, lawn mowers, etc.). The Alternative locations are similarly proximate to existing urban uses (as compared to the Project). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Population & Housing** - With development of a similar project on an alternate site, population and housing impacts would occur from development of these sites. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Public Services** - With development of a similar project on an alternate site, public service impacts would occur from development of these sites (need for police, fire, schools and other public facilities). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Recreation** - With development of a similar project on an alternate site, recreation impacts would occur from development of these. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Transportation** - With development of a similar project on an alternate site, transportation impacts would occur from construction (vehicles and equipment, which would require a Traffic Control Plan) and operation (vehicles associated with the residential

development). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

- **Tribal Cultural Resources** - With development of a similar project on an alternate site, tribal cultural resource impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Utilities & Service Systems** - With development of a similar project on an alternate site, utility and service system impacts would occur from construction activities (water for dust control, solid waste disposal) and operational activities (water demand associated with the development, wastewater disposal, solid waste disposal). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Wildfire** - With development of a similar project on an alternate site, wildfire impacts could occur from development of these. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

Refer to Table 4-1 for a comparison of each environmental topic for the Alternate Location #1 Alternative versus the Project.

Project Objectives

The Alternative Site #1 Alternative would meet most of the Project Objectives outlines in Section 4.2 herein. However, this Alternative would not be as feasible as compared to the Project. The Alternative site has different land owners who have not expressed a desire to develop a residential community on their properties, thus the site would likely not be developed in a unified manner or at a rate of development that would produce housing as quickly as the Project. Thus, this Alternative would result in slower development of housing units (than the Project) that would assist the City in meeting its General Plan and Housing Element requirements and objectives, and would not be fully consistent with this objective.

Alternate Location #2

Description

There are relatively few sites within or adjacent to the City of Madera that provide adequately sized lands suitable for the Project. The criteria for selection included whether or not the alternate site would substantially reduce environmental impacts, availability of land, adequately sized parcels, efficiency of access, and acceptable land use designations/zoning. There are areas of agricultural land of similar size located both south of the Project. These areas could conceivably

support the Project and are depicted in the Figure A-1 (Location of Alternative Sites in Relation to Project Site), and A-3 (Alternative Site #2: Approximately 206 Acres). Alternate Site #2 is outside the City limits within the Madera Urban Growth Boundary and is designated for Village Mixed Use. Alternative Site #2 is within the Sphere of Influence. Development of this area would allow for contiguous growth adjacent to existing urban development in the City. Alternative Site #2 is located at the northwest corner of Avenue 12 and SR 145.

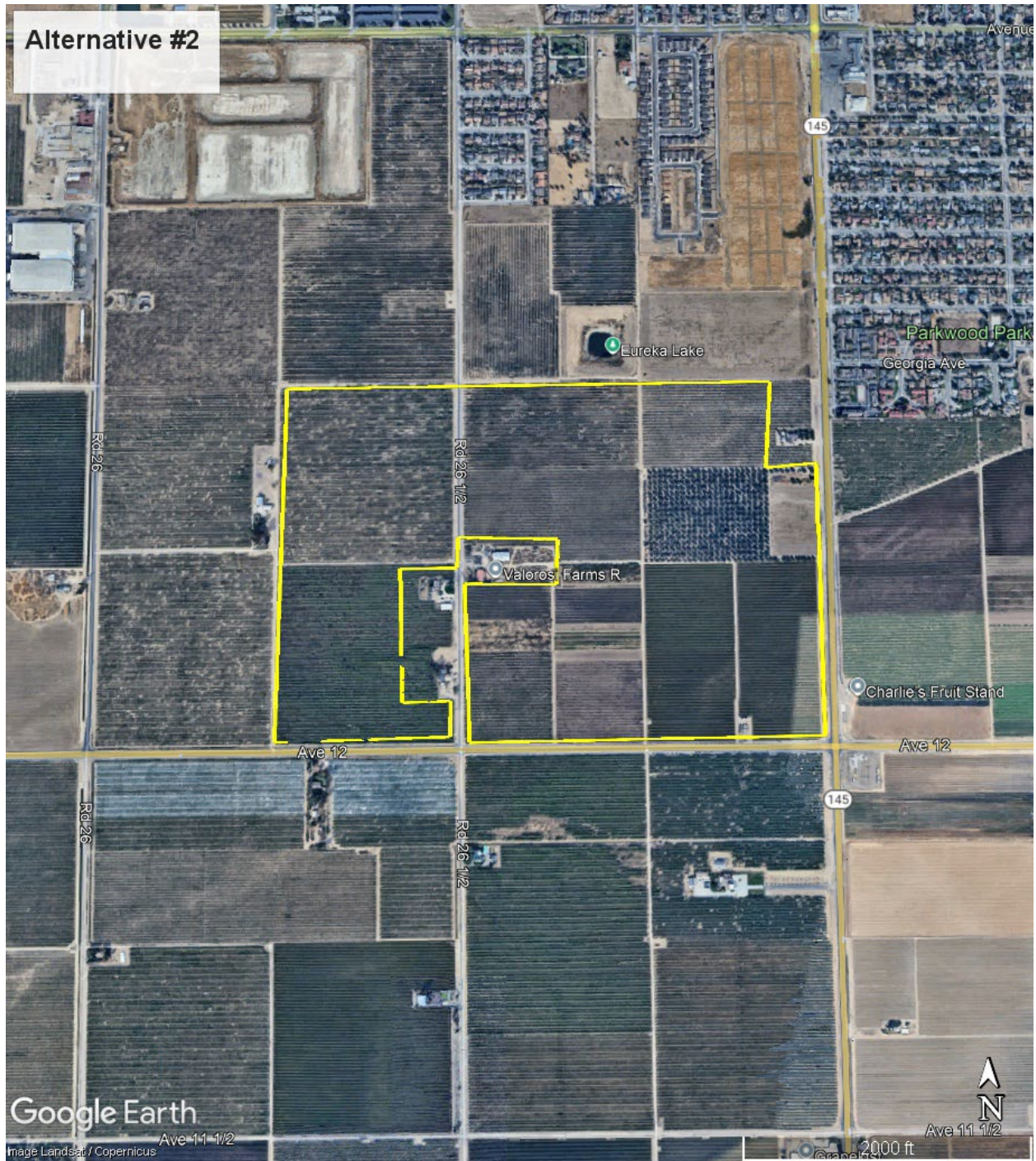
Perhaps the greatest obstacle in selecting an alternative site for the Project is that the Project Applicant does not already own land at this location and/or does not have control of land at this location. However, for purposes of environmental evaluation, a description of potential environmental impacts is provided below.

Environmental Considerations

Development of this alternate site could theoretically meet most of the Project objectives presented earlier in this chapter. However, construction and operation at an alternate site would result in environmental impacts that are likely equal to or in some cases could be greater than the Project. The majority, if not all, of project impacts are likely to occur at an alternate site.

This site would require environmental review once the Applicant has prepared sufficient project description information. The time requirements for these activities would reduce the ability of the Applicant to accommodate projected residential demand in a timely manner compared to the Project. This alternative would be the most complex, costly, and time-consuming alternative to implement. Various engineering and technical studies would then be completed to define the project and its components. Environmental review and obtaining entitlements would follow prior to construction activities. The site identified herein appear to has conditions that are not as favorable as the Project site, such as less acreage and lack of control over the land.

Figure A-3
Alternative Location #2: Approximately 206 Acres



Impacts from the Alternate Location #2, as compared to the Project, is summarized as follows:

- **Aesthetics** – With development of a similar project on an alternate site, aesthetic impacts would occur through the conversion of farmland to urban uses, introduction of light/glare, and construction of residential units and commercial square footage on agricultural land. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Agriculture and Forestry Resources** – This site is designated for urban uses in the Merced General Plan. As such, similar to the Project, no significant impacts would occur with site development.
- **Air Quality** - With development of a similar project on an alternate site, air quality impacts would occur from construction activities (construction vehicles and equipment, dust and other emissions) and from operational activities (vehicle trip emissions and other emissions from the development). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project. This Alternative would not eliminate the significant and unavoidable impacts associated with conflicting with an established plan, exposing sensitive receptors to substantial criteria pollutants or resulting in a significant increase in criteria pollutants (at the project and cumulative level).
- **Biological Resources** - With development of a similar project on an alternate site, biological impacts could occur from development of a previously agricultural site to urban uses. Therefore, impacts are similar to the Project.
- **Cultural Resources** - With development of a similar project on an alternate site, cultural resource impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Energy** - With development of a similar project on an alternate site, energy impacts would occur from construction activities (electricity, fuel) and operational activities (electricity, natural gas, fuel). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Geology/Soils** - With development of a similar project on an alternate site, impacts to geology and soils would occur from construction activities (grading and land disturbing activities) and operational activities. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Greenhouse Gas Emissions** - With development of a similar project on an alternate site, greenhouse gas emission impacts would occur from construction activities (construction equipment emissions and vehicle emissions) and operational activities (vehicle

emissions). Since this Alternative would be of similar size and scale to the Project, and is approximately the same distance as the Project to urbanized areas of Madera, impacts are determined to be similar to the Project.

- **Hazards & Hazardous Materials** - With development of a similar project on an alternate site, hazardous impacts would occur from construction activities (use and storage of hazardous substances) and operational activities (use and storage of hazardous substances). A database search of the DTSC Envirostor³ and the State Water Resources Control Board's Geotracker⁴ was conducted for the Alternate site. The searches indicated that no known hazardous waste sites existing on the Alternate site. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Hydrology & Water Quality** - With development of a similar project on an alternate site, hydrology and water quality impacts would occur from construction activities (water for dust control, requirement for preparation of a SWPPP, drainage control) and operational activities (water demand associated with the development, drainage control). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Land Use / Planning** - With development of a similar project on an alternate site, land use and planning impacts would occur from development of existing agricultural lands to urban uses. The Alternative would not divide an established community. Since this Alternative would be of similar size and scale to the Project (and contains similar pre-zoning and land use designations), impacts are determined to be similar to the Project.
- **Mineral Resources** - With development of a similar project on an alternate site, mineral resource impacts could occur from construction activities (grading and ground-disturbing activities) and operational activities (conversion of land to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Noise** - With development of a similar project on an alternate site, noise impacts would occur from construction activities (construction equipment and vehicles) and operational activities (vehicles, air conditioners, televisions, radios, lawn mowers, etc.). The Alternative locations are similarly proximate to existing urban uses (as compared to the

³ California Department of Toxic Substances Control. Envirostor Database. <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=visalia+ca>. Accessed September 2025.

⁴ California Water Resource Control Board. GeoTracker Database. <https://geotracker.waterboards.ca.gov/map/>. Accessed September 2025.

Project). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

- **Population & Housing** - With development of a similar project on an alternate site, population and housing impacts would occur from development of these sites. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Public Services** - With development of a similar project on an alternate site, public service impacts would occur from development of these sites (need for police, fire, schools and other public facilities). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Recreation** - With development of a similar project on an alternate site, recreation impacts would occur from development of these. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Transportation** - With development of a similar project on an alternate site, transportation impacts would occur from construction (vehicles and equipment, which would require a Traffic Control Plan) and operation (vehicles associated with the residential development). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Tribal Cultural Resources** - With development of a similar project on an alternate site, tribal cultural resource impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Utilities & Service Systems** - With development of a similar project on an alternate site, utility and service system impacts would occur from construction activities (water for dust control, solid waste disposal) and operational activities (water demand associated with the development, wastewater disposal, solid waste disposal). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Wildfire** - With development of a similar project on an alternate site, wildfire impacts could occur from development of these. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

Refer to Table 4-1 for a comparison of each environmental topic for the Alternate Location #2 Alternative versus the Project.

Project Objectives

The Alternative Site #2 Alternative would meet most of the Project Objectives outlines in Section 4.2 herein. However, this Alternative would not be as feasible as compared to the Project. The Alternative site has different land owners who have not expressed a desire to develop a residential community on their properties, thus the site would likely not be developed in a unified manner or at a rate of development that would produce housing as quickly as the Project. Thus, this Alternative would result in slower development of housing units (than the Project) that would assist the City in meeting its General Plan and Housing Element requirements and objectives, and would not be fully consistent with this objective.

Reduced Footprint and Density (50%) Project Alternative

A reduction of 50% in the Project's size and development is a reasonable amount to illustrate what impact such an alternative would have on the significant effects of the Project.

Description

This alternative would reduce the Project components by 50% as follows:

- Reduction in developable acreage from 204 to 102
- Reduction in residential units from 1,542 to 771
- Reduction in commercial square footage from 612,235 to 306,118
- Corresponding reductions in infrastructure, etc.

The Project would remain a mixed use development with a variety of housing types, with the 50% reduction in developable acreage and density. Development on the site would occur on areas closest to existing development.

Environmental Considerations

Most of the environmental issues associated with this alternative would be less or similar to those of the Project. Impacts from the Reduced Footprint and Density (50%) Alternative, as compared to the Project, are summarized as follows:

- **Aesthetics** – With development of the 50% of the site, aesthetic impacts would occur through the conversion of farmland to urban uses, introduction of light/glare, and construction of residential units on non-urbanized land. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.

- **Agriculture and Forestry Resources** - With development of 50% of the site, since the site is designated and zoned for residential development, no agricultural impacts would occur. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.
- **Air Quality** - With development of 50% of the site, air quality impacts would occur from construction activities (construction vehicles and equipment, dust and other emissions) and from operational activities (vehicle trip emissions and other emissions from the development). Due to the reduction in residential units (and corresponding reduction in vehicle trips), this alternative would have lower annual emission rates than the Project for the following criteria pollutants: CO, NO_x, VOC, SO_x, PM₁₀ and PM_{2.5}. Air pollutant emission rates associated with this alternative are thus lower than the project due to the reduced number of residential units (and associated reduction in vehicle trips). This Alternative would not eliminate the significant and unavoidable impacts associated with conflicting with an established plan (at the project and cumulative level).
- **Biological Resources** - With development of the Project site with 50% of the site, biological impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.
- **Cultural Resources** - With development of 50% of the site, cultural resource impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.
- **Energy** - With development of 50% of the site, energy impacts would occur from construction activities (electricity, fuel) and operational activities (electricity, natural gas, fuel). However, since this Alternative would have 50% less residential units and commercial components as compared to the Project, energy impacts would be less than the Project.
- **Geology/Soils** - With development of 50% of the site, impacts to geology and soils would occur from construction activities (grading and land disturbing activities) and operational activities. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.
- **Greenhouse Gas Emissions** - With development of 50% of the site, greenhouse gas emission impacts would occur from construction activities (construction equipment emissions and vehicle emissions) and operational activities (vehicle emissions). However, since this Alternative would have 50% less residential units and commercial components as compared to the Project, greenhouse gas emissions would be less than the Project.

- **Hazards & Hazardous Materials** - With development of 50% of the site, hazardous impacts would occur from construction activities (use and storage of hazardous substances) and operational activities (use and storage of hazardous substances). Since this Alternative would have less residential units and commercial square footage as compared to the Project, impacts are determined to be less than the Project.
- **Hydrology & Water Quality** - With development of 50% of the site, hydrology and water quality impacts would occur from construction activities (water for dust control, requirement for preparation of a SWPPP, drainage control) and operational activities (water demand associated with the development, drainage control). However, since this Alternative would have 50% less residential acreage and commercial square footage as compared to the Project, hydrology and water quality impacts would be less than the Project.
- **Land Use / Planning** - With development of 50% of the site, land use and planning impacts would occur from development of existing agricultural lands to urban uses. The Alternative would not divide an established community. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.
- **Mineral Resources** - With development of 50% of the site, mineral resource impacts could occur from construction activities (grading and ground-disturbing activities) and operational activities (conversion of land to urban uses). Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.
- **Noise** - With development of 50% of the site, noise impacts would occur from construction activities (construction equipment and vehicles) and operational activities (vehicles, air conditioners, televisions, radios, lawn mowers, etc.). However, since this Alternative would have 50% less residential units and commercial square footage as compared to the Project, noise impacts would be less than the Project.
- **Population & Housing** - With development of 50% of the site, population and housing impacts would occur from development of these sites. However, since this Alternative would have 50% less residential units and commercial square footage as compared to the Project, population and housing impacts would be less than the Project.
- **Public Services** - With development of 50% of the site, public service impacts would occur from development of these sites (need for police, fire, schools and other public facilities). However, since this Alternative would have 50% less residential units and commercial square footage as compared to the Project, public service impacts would be less than the Project.

- **Recreation** - With development of 50% of the site, recreation impacts would occur from development of the site. However, since this Alternative would have 50% less residential units as compared to the Project, recreation impacts would be less than the Project.
- **Transportation** - With development of 50% of the site, transportation impacts would occur from construction (vehicles and equipment, which would require a Traffic Control Plan) and operation (vehicles associated with the residential and commercial development). However, since this Alternative would have 50% less residential units and commercial square footage as compared to the Project, transportation impacts would be less than the Project.
- **Tribal Cultural Resources** - With development of 50% of the site, tribal cultural resource impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.
- **Utilities & Service Systems** - With development of 50% of the site, utility and service system impacts would occur from construction activities (water for dust control, solid waste disposal) and operational activities (water demand associated with the development, wastewater disposal, solid waste disposal). However, since this Alternative would have 50% less residential units and commercial square footage as compared to the Project, utility and service system impacts would be less than the Project.
- **Wildfire** - With development of 50% of the site, wildfire impacts could occur from development of these sites. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the Project.

Refer to Table 4-1 for a comparison of each environmental topic for the Reduced Footprint and Density (50%) Project Alternative versus the Project.

Project Objectives

The Reduced Footprint and Density (50%) Alternative would meet some of the Project Objectives outlines in Section 4.2 herein. However, this Alternative would not be fully consistent with the objective to provide residential development that assists the City in meeting its Housing Element requirements (the City currently has a deficit in meeting its Regional Housing Needs Allocation goals). A 50% reduction in units would result in a larger Regional Housing Needs Allocation deficit than the Project. However, this Alternative would generate some residential development and would add units to the City's inventory, but not at the pace generated by the Project.

Increased Residential and Decreased Commercial Development Project Alternative

This alternative describes an increase in residential development and a decrease in commercial square footage. The commercial area would be reduced by approximately 12 acres and the residential portion would be increased by approximately 12 acres. The increased residential area would consist of high density and medium density development.

Description

This alternative would increase residential development and decrease commercial square footage as follows:

- Same developable acreage as Project (204 acres)
- Increase in residential units from 1,542 to 1,900
- Reduction in commercial square footage from 612,235 to 306,118

The Project would remain a mixed use development with a variety of housing types and commercial uses.

Environmental Considerations

Most of the environmental issues associated with this alternative would be less or similar to those of the Project. Impacts from the Increased Residential and Decreased Commercial Development Alternative, as compared to the Project, are summarized as follows:

- **Aesthetics** – With increased residential and decreased commercial development on the same site, aesthetic impacts would occur through the conversion of farmland to urban uses, introduction of light/glare, and construction of residential units and commercial square footage on agricultural land. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Agriculture and Forestry Resources** – This site is designated for urban uses in the Merced General Plan. As such, similar to the Project, no significant impacts would occur with site development.
- **Air Quality** - With increased residential and decreased commercial development on the same site, air quality impacts would occur from construction activities (construction vehicles and equipment, dust and other emissions) and from operational activities (vehicle trip emissions and other emissions from the development). Because residential uses have less traffic trips than commercial uses, impacts are determined to be less than

the Project. This Alternative would not eliminate the significant and unavoidable impacts associated with conflicting with an established plan, exposing sensitive receptors to substantial criteria pollutants or resulting in a significant increase in criteria pollutants (at the project and cumulative level).

- **Biological Resources** - With increased residential and decreased commercial development on the same site, biological impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Cultural Resources** - With increased residential and decreased commercial development on the same site, cultural resource impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Energy** - With increased residential and decreased commercial development on the same site, energy impacts would occur from construction activities (electricity, fuel) and operational activities (electricity, natural gas, fuel). Because residential uses have less traffic trips than commercial uses, impacts are determined to be less than the Project.
- **Geology/Soils** - With increased residential and decreased commercial development on the same site, impacts to geology and soils would occur from construction activities (grading and land disturbing activities) and operational activities. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Greenhouse Gas Emissions** - With increased residential and decreased commercial development on the same site, greenhouse gas emission impacts would occur from construction activities (construction equipment emissions and vehicle emissions) and operational activities (vehicle emissions). Because residential uses have less traffic trips than commercial uses, and is approximately the same distance as the Project to urbanized areas of Madera, impacts are determined to be less than the Project.
- **Hazards & Hazardous Materials** - With increased residential and decreased commercial development on the same site, hazardous impacts would occur from construction activities (use and storage of hazardous substances) and operational activities (use and storage of hazardous substances). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Hydrology & Water Quality** - With increased residential and decreased commercial development on the same site, hydrology and water quality impacts would occur from construction activities (water for dust control, requirement for preparation of a SWPPP, drainage control) and operational activities (water demand associated with the

development, drainage control). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

- **Land Use / Planning** - With increased residential and decreased commercial development on the same site, land use and planning impacts would occur from development of existing agricultural lands to urban uses. The Alternative would not divide an established community. Since this Alternative would be of similar size and scale to the Project (and contains similar pre-zoning and land use designations), impacts are determined to be similar to the Project.
- **Mineral Resources** - With increased residential and decreased commercial development on the same site, mineral resource impacts could occur from construction activities (grading and ground-disturbing activities) and operational activities (conversion of land to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Noise** - With increased residential and decreased commercial development on the same site, noise impacts would occur from construction activities (construction equipment and vehicles) and operational activities (vehicles, air conditioners, televisions, radios, lawn mowers, etc.). Because residential uses generally have less noise impacts than commercial uses, impacts are determined to be less than the Project.
- **Population & Housing** - With increased residential and decreased commercial development on the same site, population and housing impacts would occur from development of the site. Because there would be increased housing and an associated increase in population, impacts are determined to be greater than the Project.
- **Public Services** - With increased residential and decreased commercial development on the same site, public service impacts would occur from development of these sites (need for police, fire, schools and other public facilities). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Recreation** - With increased residential and decreased commercial development on the same site, recreation impacts would occur from development of these. Because there would be increased housing and an associated increase in population, impacts are determined to be greater than the Project.
- **Transportation** - With increased residential and decreased commercial development on the same site, transportation impacts would occur from construction (vehicles and equipment, which would require a Traffic Control Plan) and operation (vehicles associated with the residential development). Because residential uses have less traffic trips than commercial uses, impacts are determined to be less than the Project.

- **Tribal Cultural Resources** - With increased residential and decreased commercial development on the same site, tribal cultural resource impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Utilities & Service Systems** - With increased residential and decreased commercial development on the same site, utility and service system impacts would occur from construction activities (water for dust control, solid waste disposal) and operational activities (water demand associated with the development, wastewater disposal, solid waste disposal). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Wildfire** - With increased residential and decreased commercial development on the same site, wildfire impacts could occur from development of these. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

Refer to Table 4-1 for a comparison of each environmental topic for the Increased Residential and Decreased Commercial Development Project Alternative versus the Project.

Project Objectives

The Increased Residential and Decreased Commercial Development Alternative would meet some of the Project Objectives outlines in Section 4.2 herein. However, this Alternative would not be fully consistent with the objective to provide adequate commercial development and employment centers to meet the needs of the development and the City as a whole. It would also not provide as much walkable access to commercial facilities, thereby increasing residential traffic trips to other commercial areas of the City and area. An increase in residential units would assist the City in meeting it's Regional Housing Needs Allocation deficit moreso than the Project. In addition, this Alternative would generate some commercial development, but not at the pace generated by the Project.

Decreased Residential and Increased Commercial Development Project Alternative

This alternative describes a decrease in residential development and an increase in commercial square footage. The commercial area would be increased by approximately 12 acres and the residential portion would be decreased by approximately 12 acres.

Description

This alternative would decrease residential development and increase commercial square footage as follows:

- Same developable acreage as Project (204 acres)
- Decrease in residential units from 1,542 to 1,184
- Increase in commercial square footage from 612,235 to 800,000

The Project would remain a mixed use development with a variety of housing types and commercial uses.

Environmental Considerations

Most of the environmental issues associated with this alternative would be greater or similar to those of the Project. Impacts from the Decreased Residential and Increased Commercial Development Alternative, as compared to the Project, are summarized as follows:

- **Aesthetics** – With decreased residential and increased commercial development on the same site, aesthetic impacts would occur through the conversion of farmland to urban uses, introduction of light/glare, and construction of residential units and commercial square footage on agricultural land. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Agriculture and Forestry Resources** – This site is designated for urban uses in the Merced General Plan. As such, similar to the Project, no significant impacts would occur with site development.
- **Air Quality** - With decreased residential and increased commercial development on the same site, air quality impacts would occur from construction activities (construction vehicles and equipment, dust and other emissions) and from operational activities (vehicle trip emissions and other emissions from the development). Because commercial uses have more traffic trips than residential uses, impacts are determined to be more than the Project. This Alternative would not eliminate the significant and unavoidable impacts associated with conflicting with an established plan, exposing sensitive receptors to substantial criteria pollutants or resulting in a significant increase in criteria pollutants (at the project and cumulative level).
- **Biological Resources** - With decreased residential and increased commercial development on the same site, biological impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

- **Cultural Resources** - With decreased residential and increased commercial development on the same site, cultural resource impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Energy** - With decreased residential and increased commercial development on the same site, energy impacts would occur from construction activities (electricity, fuel) and operational activities (electricity, natural gas, fuel). Because commercial uses have more traffic trips than residential uses, impacts are determined to be more than the Project.
- **Geology/Soils** - With decreased residential and increased commercial development on the same site, impacts to geology and soils would occur from construction activities (grading and land disturbing activities) and operational activities. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Greenhouse Gas Emissions** - With decreased residential and increased commercial development on the same site, greenhouse gas emission impacts would occur from construction activities (construction equipment emissions and vehicle emissions) and operational activities (vehicle emissions). Because commercial uses have more traffic trips than residential uses, and is approximately the same distance as the Project to urbanized areas of Madera, impacts are determined to be more than the Project.
- **Hazards & Hazardous Materials** - With decreased residential and increased commercial development on the same site, hazardous impacts would occur from construction activities (use and storage of hazardous substances) and operational activities (use and storage of hazardous substances). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Hydrology & Water Quality** - With decreased residential and increased commercial development on the same site, hydrology and water quality impacts would occur from construction activities (water for dust control, requirement for preparation of a SWPPP, drainage control) and operational activities (water demand associated with the development, drainage control). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Land Use / Planning** - With decreased residential and increased commercial development on the same site, land use and planning impacts would occur from development of existing agricultural lands to urban uses. The Alternative would not divide an established community. Since this Alternative would be of similar size and scale to the Project (and contains similar pre-zoning and land use designations), impacts are determined to be similar to the Project.

- **Mineral Resources** - With decreased residential and increased commercial development on the same site, mineral resource impacts could occur from construction activities (grading and ground-disturbing activities) and operational activities (conversion of land to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Noise** - With decreased residential and increased commercial development on the same site, noise impacts would occur from construction activities (construction equipment and vehicles) and operational activities (vehicles, air conditioners, televisions, radios, lawn mowers, etc.). Because residential uses generally have less noise impacts than commercial uses, impacts are determined to be more than the Project.
- **Population & Housing** - With decreased residential and increased commercial development on the same site, population and housing impacts would occur from development of the site. Because there would be decreased housing and an associated reduction in population, impacts are determined to be less than the Project.
- **Public Services** - With decreased residential and increased commercial development on the same site, public service impacts would occur from development of these sites (need for police, fire, schools and other public facilities). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Recreation** - With decreased residential and increased commercial development on the same site, recreation impacts would occur from development of these. Because there would be decreased housing and an associated decrease in population, impacts are determined to be less than the Project.
- **Transportation** - With decreased residential and increased commercial development on the same site, transportation impacts would occur from construction (vehicles and equipment, which would require a Traffic Control Plan) and operation (vehicles associated with the residential development). Because commercial uses have more traffic trips than residential uses, impacts are determined to be more than the Project.
- **Tribal Cultural Resources** - With decreased residential and increased commercial development on the same site, tribal cultural resource impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.
- **Utilities & Service Systems** - With decreased residential and increased commercial development on the same site, utility and service system impacts would occur from construction activities (water for dust control, solid waste disposal) and operational activities (water demand associated with the development, wastewater disposal, solid

waste disposal). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

- **Wildfire** - With decreased residential and increased commercial development on the same site,, wildfire impacts could occur from development of these. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the Project.

Refer to Table 4-1 for a comparison of each environmental topic for the Decreased Residential and Increased Commercial Development Project Alternative versus the Project.

Project Objectives

The Decreased Residential and Increased Commercial Development Alternative would meet some of the Project Objectives outlines in Section 4.2 herein. However, this Alternative would not be fully consistent with the objective to provide residential development that assists the City in meetings its Housing Element requirements (the City currently has a deficit in meeting its Regional Housing Needs Allocation goals). A reduction in units would result in a larger Regional Housing Needs Allocation deficit than the Project. However, this Alternative would generate some residential development and would add units to the City’s inventory, but not at the pace or total number generated by the Project.

4.6 Summary of Potential Impacts of Alternatives

Table 4-1 provides a summary and side-by-side comparison of the Project with the impacts of each of the alternatives analyzed. Please note that under “No Project”, “Alternate Site #1”, “Alternate Site #2”, “Reduced Footprint and Density (50%) Project”, Increased Residential and Decreased Commercial Development” and “Decreased Residential and Increased Commercial Development” columns in Table 4-1, the references to “less, similar, or greater,” refer to the impact of the alternative compared to the Project, and the impacts “no impact, less than significant, or significant and unavoidable,” in the parentheses refer to the significant impact of the specific alternative.

Table 4-1
Alternatives Potential Impact Analysis

Environmental Issues	Project	No Project	Alternate Location #1	Alternate Location #2	Reduced Footprint and Density (50%) Project	Increased Residential and Decreased Commercial	Decreased Residential and Increased Commercial
Aesthetics	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Agriculture / Forest Resources	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Air Quality	Significant and Unavoidable	Less	Similar	Similar	Less / Still Significant and Unavoidable	Less	Increased
Biological Resources	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Cultural Resources	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Geology and Soils	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Greenhouse Gas Emissions	Less than Significant	Less	Similar	Similar	Less	Less	Increased
Hazards and Hazardous Materials	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Hydrology and Water Quality	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Land Use / Planning	Less than Significant	Less	Similar	Similar	Less	Similar	Similar

Environmental Issues	Project	No Project	Alternate Location #1	Alternate Location #2	Reduced Footprint and Density (50%) Project	Increased Residential and Decreased Commercial	Decreased Residential and Increased Commercial
Noise	Less than Significant	Less	Similar	Similar	Less	Less	Increased
Population / Housing	Less than Significant	Less	Similar	Similar	Less	Increased	Less
Public Services	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Recreation	Less than Significant	Less	Similar	Similar	Less	Increased	Less
Transportation and Traffic	Less than Significant	Less	Similar	Similar	Less	Less	Increased
Tribal Cultural Resources	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Utilities and Service Systems	Less than Significant	Less	Similar	Similar	Less	Similar	Similar
Cumulative Impacts	Significant and unavoidable for Air Quality	Less	Similar	Similar	Less / Still Cumulatively Considerable	Similar	Similar
Impact Reduction		Yes	No	No	Yes	Yes	No

Environmentally Superior Alternative

As presented in the comparative analysis above, and as shown in Table 4-1, there are a number of factors in selecting the environmentally superior alternative. An EIR must identify the environmentally superior alternative to the project. The No Project Alternative would be environmentally superior to the Project on the basis of its minimization or avoidance of physical environmental impacts. However, CEQA Guidelines Section 15126.6(e)(2) states:

The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Because the No Project Alternative cannot be the Environmentally Superior Alternative under CEQA, the Reduced Footprint and Density (50%) Project Alternative would be the Environmentally Superior alternative because it would result in less adverse physical impacts to the environment with regard to all environmental CEQA Appendix G categories. However, the Reduced Footprint and Density (50%) Project Alternative does not eliminate the Project’s significant and unavoidable impacts associated with Air Quality (project and cumulative). Furthermore, the Reduced Footprint and Density (50%) Project Alternative does not meet all of the Project objectives, particularly with regard to quantity and diversity of housing. In addition, this Alternative is not as financially feasible as the Project because the development would require a certain number of residential developments to support the proposed commercial developments in the area. This Alternative would eliminate half of the proposed housing on site and thus would not support the commercial development.

Summary and Determination

Only the No Project, the Reduced Footprint and Density (50%) Project Alternative, and Increased Residential and Reduced Commercial Alternatives could potentially result in fewer impacts than the Project’s impacts. These Alternatives however, would not fully meet the objectives of the Project. After this full, substantial, and deliberate analysis, the Project remains the preferred alternative.

CEQA CONSIDERATIONS

5.1 Growth-Inducing Impacts

CEQA Sections 15126 (d) and 15126.2(e) require that any growth-inducing aspect of a project be addressed in an EIR. Section 15126(e) specifically provides:

Growth-Inducing Impact of the proposed Project. Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which could remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The following analysis examines the proposed Project's potential growth-inducing effects against these criteria.

Removal of obstacles to growth. The Granite Creek Precise Plan provides a regulatory framework to guide development of a 204-acre area of land immediately adjacent to the City of Madera. While Project implementation would result in annexation to the City of Madera and new infrastructure and services to support planned development, these improvements would only serve the proposed Project area and would not extend services to other currently unserved areas. The City of Madera General Plan designates this Project site as Village Reserve which is intended for future, comprehensive development, such as the proposed Project. The proposed Project area is surrounded by urban uses and actively cultivated agricultural land, and site development has been anticipated in local and regional plans. Full Project buildout will result in the population growth of 5,119 people; however, this would be the maximum anticipated and as stated previously, the site has been designated for urban development and would be restricted to the 204-acre Project site. Therefore, proposed Project implementation would not remove obstacles to growth beyond the Project area.

Economic growth effects. The Granite Creek Precise Plan allows for development of Village Mixed Use and Commercial land uses, which are both considered employment land use designations. At full buildout, the proposed Project could accommodate up to 417,609 square feet of commercial space. The economic growth and job creation resulting from the new commercial space has been accounted for

in the City's General Plan, as the anticipated population and housing unit increase associated with the proposed Project are within the growth projections of the City's General Plan and the Madera County Transportation Commission's (MCTC) growth and development projections. As of July 2025, Madera had an unemployment rate of 8.3 percent¹ and it is anticipated that those new employment opportunities associated with the Project could likely be filled by the existing employment base. Therefore, while the proposed Project will foster economic growth, this growth has been planned for and would not trigger significant unplanned growth-inducing effects.

Precedent-setting actions. The implementation of the Granite Creek Precise Plan requires a General Plan Amendment and Zone Change to implement the Plan; however, these changes apply onto the Plan area and do not alter fundamental City policies regarding growth and development. In the past, other Precise Plans have been prepared and approved in the City to guide planned growth. The Plan's development standards and guidelines are specific to the Plan area and would not establish broader precedents for development elsewhere in Cadera. Therefore, approval of the proposed Project would not be growth-inducing through precedent-setting actions.

Conclusion: The project would have *less than significant* growth-inducing impacts.

5.2 Irreversible Environmental Changes

Section 15126(c) of the CEQA Guidelines requires that an EIR include a discussion of significant irreversible environmental changes that would result from project implementation. CEQA Section 15126.2(d) identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents. The following irreversible changes would occur as the proposed Project develops over time:

Commitment of Land and Resources. Development under the Granite Creek Precise Plan would permanently convert approximately 204 acres of largely vacant land to urban uses. While site development is anticipated under the current General Plan, the majority of the Project area would be irreversibly transformed into a mixed-use community with residential, commercial, public facilities and recreational uses. This commitment of land resources has been anticipated in local and regional planning documents. In the future, the site could be rezoned or redeveloped for a different use also allowed in the existing General Plan or Zoning Ordinance designations, in

¹ California Employment Development Department. Madera County Profile. <https://labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSResults.asp?menuChoice=&state=true&geogArea=0604000039&selectedArea=Madera%20County>. Accessed September 2025.

which case, at the end of the useful life of the Project, the use could change. Therefore, the Project would not commit future generations to a significant change in land use. This is in contrast to a large industrial use, where reuse for non-industrial uses likely would require extensive remediation, making such reuse difficult, or large infrastructure projects that are rarely moved or dismantled once constructed.

Energy and Material Resources. Implementation of the proposed Project will result in the long-term commitment of various resources, including:

- Construction materials such as lumber, steel, concrete, asphalt, and other building materials
- Energy resources for construction and long-term operation (electricity, natural gas, and petroleum products)
- Water resources for construction, landscaping, and operations

The use of these resources would represent long-term commitment of essential non-renewable resources; however, development under the Granite Creek Precise Plan would be required to comply with California's stringent building and energy efficiency standards, which would minimize resource consumption. Additionally, to the extent nonrenewable uses are used during construction, the Project is being created to meet existing demand for housing and services in the City, which would lead to the consumption of these resources elsewhere if the proposed Project were not built.

Potential Environmental Accidents. The proposed Project would not result in irreversible damage resulting from environmental accidents. The Project consists of a mixed-use residential and commercial development. None of these land uses routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential and commercial hazardous materials such as cleaners, paint, petroleum products, etc. Handling and use of hazardous materials and the disposal of the resulting hazardous wastes would be required to follow the applicable laws and regulations, as described in Section 3.8 – Hazards & Hazardous Materials of this EIR. As such, irreversible environmental accidents are unlikely.

Conclusion: The project would have *less than significant* irreversible environmental changes.