Calaveras Council of Governments

Regional Bicycle, Pedestrian and Safe Routes to School Plan

Initial Study / Mitigated Negative Declaration

Prepared By:

Calaveras Council of Governments

444 East Saint Charles Street/Highway 49

Post Office Box 280

San Andreas, California 95249

July 3, 2015

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1. Introduction

1.1. Introduction and Regulatory Guidance

This document is an Initial Study/Negative Declaration (IS/MND) prepared pursuant to the California Environmental Quality Act (CEQA) for the proposed *Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan* ("Project").

In accordance with the California Environmental Quality Act, Calaveras Council of Governments has prepared an Initial Study to determine whether the Project may have a significant adverse effect on the environment. The Initial Study and Proposed Mitigated Negative Declaration reflect the independent judgment of Calaveras Council of Governments staff. On the basis of the Initial Study, Calaveras Council of Governments hereby finds:

Although the proposed Project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the project has incorporated specific provisions to reduce impacts to a less than significant level and/or the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has thus been prepared.

The Initial Study, which provides the basis and reasons for this determination, is included and is hereby made a part of this document.

This IS/MND considers the broad environmental effects of the Project as is consistent with program-level environmental review under CEQA. Future projects or activities in the Project area will be evaluated for consistency with the IS/MND to determine if they would have effects not examined in this document. If individual projects or activities identified by the Project would have no effects beyond those examined in this IS/MND, no further CEQA compliance would be required.

1.2. Purpose and Document Organization

The purpose of this Initial Study/Negative Declaration is to evaluate the potential environmental impacts of the proposed Project.

This document is divided into the following sections:

1.0 Introduction - Provides an introduction and describes the purpose and organization of this document;

2.0 Initial Study Checklist – Summarizes pertinent project details, including lead agency contact information and project location;

3.0 Project Location, Setting and Description - Provides a detailed description of the proposed project;

4.0 Environmental Analysis - Impacts and Mitigation Measures - Describes the environmental setting for each of the environmental subject areas, evaluates a range of impacts classified as "no impact," "less than significant," "less than significant with mitigation incorporated," or "potentially significant" in response to the environmental checklist, and provides mitigation measures, where appropriate, to mitigate potentially significant impacts to a less than significant level; a determination follows the analysis with conclusions regarding the environmental impact of the project.

1.3. Lead Agency

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b) (1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Based on these criteria, the Calaveras Council of Governments will serve as lead agency for the *Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan*. No specific permits are required by any other responsible or trustee agencies to approve the proposed Project. However, there are numerous permits and approvals that may be required to implement the improvements identified by the Project. The following additional agency approvals apply to the proposed Project: County of Calaveras, City of Angels, California Transportation Commission, and California Department of Transportation (Caltrans).

1.4. Relationship to Previous Environmental Documents

This initial study relies on the *2012 Calaveras County Regional Transportation Plan* Initial Study, which evaluated the environmental impacts associated with development of the *2012 Calaveras County Regional Transportation Plan*. Pursuant to Public Resources Code Section 21083.3 and State CEQA Guidelines Section 15183, this Initial Study need only evaluate environmental impacts peculiar to the proposed project and which were not addressed in previous Initial Study. The *2012 Calaveras County Regional Transportation Plan* and Initial Study are available for public review at the Calaveras Council of Governments, 444 East Saint Charles Street/Highway 49, San Andreas, California 95249.

2. Initial Study Checklist

1. **Project Title:**

   Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan

2. **Lead Agency Name and Address:**

   Calaveras Council of Governments
   444 East Saint Charles Street/Highway 49
   San Andreas, CA 95249

3. **Contact Person and Phone Number:**
   Amber Collins
   209-754-2094

4. **Project Location:**

   Calaveras County

5. **Project Sponsor's Name and Address:**

   See #2 and #3

6. **General Plan Land Use Designation:**

   Variable – See Project Description below.

7. **Zoning:**

   Variable – See Project Description below.

8. **Description of Project:**

   See Project Description.

9. **Surrounding Land Uses and Setting:**

   See Project Description.

10. **Other Public Agencies whose Approval is Required:**

    None.

2.1. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ❑ Aesthetics
- ❑ Agriculture and Forestry Resources
- ❑ Air Quality
- ❑ Biological Resources
- ❑ Cultural Resources
- ❑ Geology/Soils
- ❑ Greenhouse Gas Emissions
- ❑ Hazardous and Hazardous Materials
- ❑ Hydrology/Water Quality
- ❑ Land Use/Planning
- ❑ Mineral Resources
- ❑ Noise
- ❑ Population/Housing
- ❑ Public Services
- ❑ Recreation
- ❑ Transportation/Traffic
- ❑ Utility/Service Systems
- ❑ Mandatory Findings of Significance

2.2. Determination

On the basis of this initial evaluation:

❒ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☑ I find that although the proposed project **COULD** have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the Project. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

❒ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

❒ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

❒ I find that although the proposed project **COULD** have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an **EARLIER EIR or NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

2.3. Signature

Signature: _____

Date: _____

Printed name: _____

2.4. Evaluation of Environmental Impacts

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take into account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduces an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses", as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that as "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). References to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental affects in whatever form is selected.

9) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significant.

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3. Project Location, Setting and Description

3.1. Project Location and Setting

The Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan area is contiguous with Calaveras County.

Calaveras County is located within the foothills of the Sierra Nevada mountain range approximately 133 miles east of San Francisco and 85 miles southeast of Sacramento. The county was incorporated in 1850 and is County is bordered by Alpine County to the east, Amador County to the north, Tuolumne County to the south, and Stanislaus County and San Joaquin County to the west. The county seat is located in San Andreas. The county is rural with a dispersed population and a population density of approximately 44 persons per square mile (0.6 persons per acre).

Table 3-3-1: Calaveras County Jurisdictions and Populations

Jurisdiction	Population
Calaveras County	45,507
City of Angels	3,824
Arnold	2,552
Avery	588
Copperopolis	4,174
Dorrington	503
Forest Meadows	1,313
Mokelumne	688
Mountain Ranch	1,600
Murphys	2,012
Rail Road Flat	121
Rancho Calaveras	6,223
San Andreas	3,015
Vallecito	674
Valley Springs	3,619
Wallace	495
West Point	837

Source: American Community Survey 5-Year estimates (2008-2012)

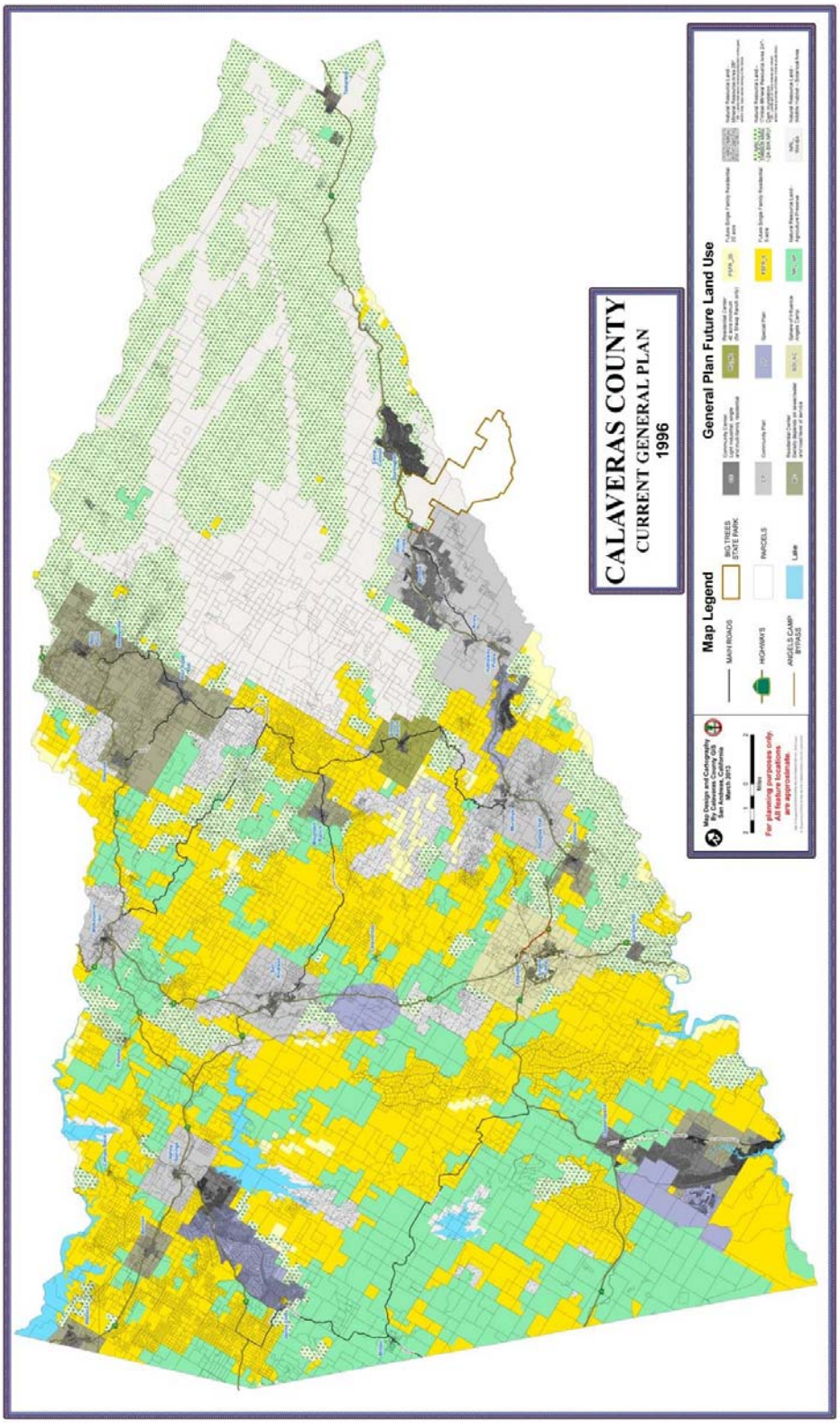

Figure 3-1: Calaveras County Land Use Map

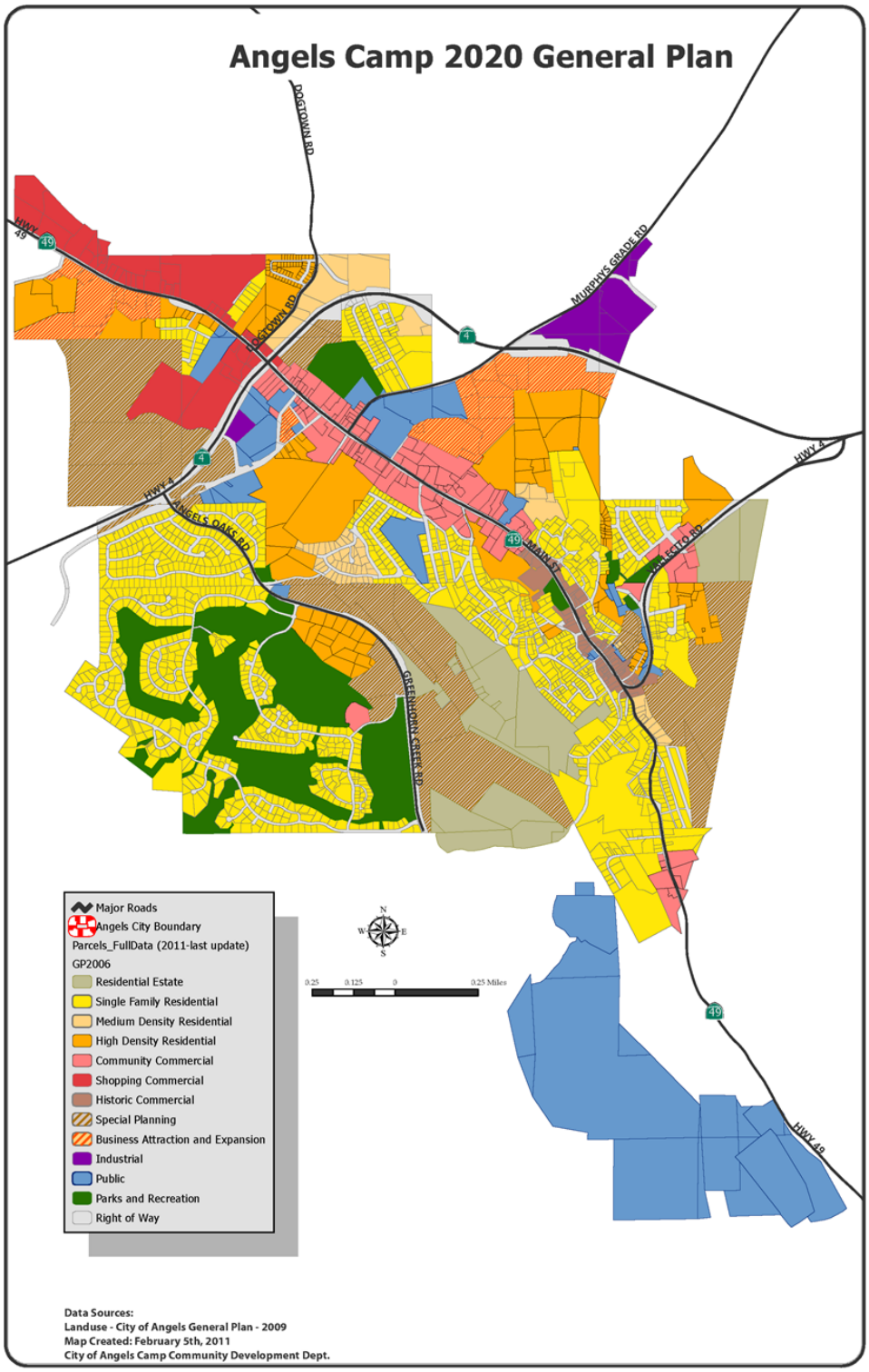

Figure 3-2:City of Angels Camp Land Use Map

3.2. General Plan and Zoning

There are a variety of General Plan Land Use designations applicable throughout the entire county, which includes the entire Project area. The proposed Project was designed to be consistent with the General Plans of Calaveras County and the City of Angels Camp. The Circulation Elements from each of these general plans were used as a reference during the development of the *Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan*. The proposed Project is consistent with each of these general plans and does not include any proposed changes to the above-referenced general plans.

3.3. Project Description

The proposed project is the adoption and implementation of the *Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan*. The Calaveras Council of Governments, which serves as the Regional Transportation Planning Agency (RTPA) for the County of Calaveras and the City of Angels Camp, has developed the *Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan*. The Project will serve as the guide to planning active transportation investments in Calaveras County involving federal, state and local funding. The development of the Project has been a cooperative effort between the Calaveras Council of Governments, Calaveras County, City of Angels Camp, Caltrans, and the residents of Calaveras County.

Active transportation improvements proposed by the Project cover bicycle and pedestrian travel and reflect a system planning approach within Calaveras County. The *Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan* provides recommended bicycle and pedestrian projects and programs for Calaveras County and the City of Angels.

The Calaveras Council of Governments, in coordination with member agencies and through public outreach, developed this plan to identify bikeways and pedestrian projects in order to improve connectivity, provide access, prioritize funding, and facilitate implementation. The Project is divided into seven chapters plus appendices as described below:

Chapter 1 Introduction – Describes the Project background and Project visions, goals and objectives.

Chapter 2 Existing Conditions – Discusses the Project area, existing land use, roadways, transit, schools, active transportation infrastructure, and active transportation programs.

Chapter 3 Needs Analysis – Summarizes bicyclists' needs and preferences, pedestrians' needs and preferences, school needs and preferences, community participation as part of the project development, community survey results, trip attractors and generators within the Project area, current commuting patterns, and Project area collision history and patterns.

Chapter 4 Recommended Infrastructure Projects – Identifies the recommended active transportation infrastructure projects within the Project area. Recommendations are categorized by location: countywide, City of Angels and unincorporated Calaveras County places. This chapter also discusses the proposed countywide trails plan, sidewalk installation and maintenance, bicycle parking, traffic signal detection for bicycles, wayfinding signage, and several unadopted community plans.

Chapter 5 Recommended Programs – Identifies the recommended active transportation education, encouragement, enforcement and evaluation programs within the Project area. Recommendations are grouped by category.

Chapter 6 Implementations – Lays out the strategy for implementing the projects and programs and is organized into sections, including project evaluation strategy, cost estimates, priority projects, project evaluation summary, and project list.

Chapter 7 Funding – Describes various sources of funding available to plan and construct bicycle and pedestrian facilities, including those related to school access and area improvement, as well as sources to provide education or encouragement programs. This chapter covers federal, state, regional, local sources of funding, as well as some non-traditional funding sources that have been used by local agencies to fund bicycle, pedestrian, and safe routes to school infrastructure and programs.

Appendices – The appendices include additional information and technical data including bikeway design guidance, pedestrian facility design guidance, a review of other applicable plans, detailed community survey results, and a discussion of the Active Transportation Program guidelines.

More detailed information on the Project can be found at the Calaveras Council of Governments website at http://www.calacog.org.

3.4. Project Purpose and Objectives

The purpose of the Project is to provide a vision for the walking and bicycling environment in Calaveras County and identify specific recommendations, strategies and actions to achieve that vision. The Project will guide the development and implementation of the county's bicycle and pedestrian network and programming for years to come. Project goals include:

Goal 1: Provide an efficient network of bikeways and pedestrian facilities throughout Calaveras County.

Goal 2: Improve bicyclist and pedestrian safety.

Goal 3: Ensure the timely funding and construction of the bicycle and pedestrian improvements described in this plan.

Goal 4: Increase the number of commute, recreation, and utilitarian bicycle and walking trips.

Goal 5: Increase the awareness of bicycling and pedestrian travel through encouragement, education, enforcement and evaluation programs.

The recommended improvements would provide connections to major destinations within Calaveras County and alternatives that accommodate pedestrians and bicyclists of all ability levels. The Project also prepares Calaveras County and the City of Angels for a variety of funding sources that require active transportation plans or safe routes to school plans as part of their requirements.

3.5. Project Details

3.5.1. Overview

The Project recommends bicycle and pedestrian infrastructure projects. These recommended projects were identified through the *2007 Bicycle and Pedestrian Master Plans*, the *2012 Regional Transportation Plan*, and input received from the community through the public workshops, a community survey and those submitted through the Walk and Bike Calaveras website.

One of the primary objectives of this Project is the development of an adoptable plan that has agency and community consensus. The previous *2007 Bicycle and Pedestrian Master Plans* were not adopted by Calaveras County because of concerns regarding recommendations on private property and the lack of California Environmental Quality Act review and documentation. In order to ensure an adoptable plan that has support from the community and the county, this Project does not include recommendations on private right-of-way.

The recommendations of this Project set the foundation for improving safety for those who bicycle and those who walk to key community destinations such as schools or downtown, creating an inviting environment for bicycling and walking, and increasing quality of life for residents and visitors.

3.5.2. Global Recommendations

The global projects include recommendations for:

- Countywide Safe Routes to School Plan
- Countywide Trails Plan
- Sidewalk Installation and Maintenance ordinances
- Bicycle Parking at key community destinations
- Bicycle Detection
- Bicycle and Pedestrian Wayfinding Signage

3.5.3. Project Recommendations

The following section is excerpted from the *Calaveras Council of Governments Regional Bicycle, Pedestrian and Safe Routes to School Plan* and presents the project recommendations.

The Plan includes recommendations for just over 254 miles of bikeways, sidewalk installation and signage and crosswalk project.

Table 3-2: Bikeway Project Summary

Bikeway Class	Summary of Miles
I	9.62
II	15.39
III	159.84
STR	69.38
Grand Total	**254.24**

Table 3-3: Bikeway Projects

Jurisdiction	Community	Location	Start	End	Class	Miles
Angels Camp	City of Angels	Angels Creek Path	Hwy 49	Finnegan Lane	I	0.56
Angels Camp	City of Angels	Central Reach Alternate Alignment C2	Vallecito Rd	Vallecito Rd	I	0.12
Angels Camp	City of Angels	Central Reach Preferred Alignment C1	Rolleri Bypass Rd	Finnegan Lane	I	0.92
Angels Camp	City of Angels	Demarest St	Stockton Rd	Big Horn Mobile Home Park	I	0.18
Angels Camp	City of Angels	Dogtown Rd	Gardner Ln	Hwy 49	III	0.35
Angels Camp	City of Angels	Gardner Ln	Holly St	Murphys Grade Rd (Bret Harte Union High Schl)	II	0.11
Angels Camp	City of Angels	Gold Cliff Rd	Stanislaus Ave	Finnegan Lane	III	0.80
Angels Camp	City of Angels	Greenhorn Creek Rd	Hwy 4	Smithflat Rd	III	1.40
Angels Camp	City of Angels	Hwy 4	Hwy 49	West City Limits	III	0.73
Angels Camp	City of Angels	Hwy 49	Dogtown Rd	Mark Twain Rd	II	0.79
Angels Camp	City of Angels	Hwy 49	Bret Harte Rd	South City Limits	III	1.06
Angels Camp	City of Angels	Hwy 49	Gold Country Inn Angels Camp	Bret Harte Dr (South Intersection)	II	0.36
Angels Camp	City of Angels	Hwy 49	Brunner Hill Dr	Dog Town Rd	STR	0.76
Angels Camp	City of Angels	Mccauley Ranch Rd	Greenhorn Creek Rd	Gold Cliff Rd	I	0.19
Angels Camp	City of Angels	Murphys Grade Rd	Rolleri Bypass Rd	Hwy 49	STR	0.95
Angels Camp	City of Angels	North Reach Alternate Alignment N2	Hwy 4 Bypass Bridge	Vallecito Rd	I	0.61
Angels Camp	City of Angels	North Reach Preferred Alignment N1	Bret Harte High School	Rolleri Bypass Rd	I	1.45

Jurisdiction	Community	Location	Start	End	Class	Miles
Angels Camp	City of Angels	Sierra Drive	Angels Oaks Rd	Tuolumne Ave	I	0.21
Angels Camp	City of Angels	South Reach Alternate Alignment S2	Preferred South Reach Alignment	Preferred South Reach Alignment	I	0.88
Angels Camp	City of Angels	South Reach Preferred Alignment S1.1	Finnegan Ln	Main St	I	0.53
Angels Camp	City of Angels	South Reach Preferred Alignment S1.2	Finnegan Ln	Centennial Ln	I	0.26
Angels Camp	City of Angels	South Reach Preferred Alignment S1.3	City of Angels City Limit	N/A	I	1.93
Angels Camp	City of Angels	South Reach Preferred Alignment S1.4	Finnegan Ln	Greenhorn Creek Rd	I	0.91
Angels Camp	City of Angels	Stanislaus Ave	Hwy 49	San Joaquin Ave	II	0.12
Angels Camp	City of Angels	Stanislaus Ave	San Joaquin Ave	Gold Cliff Rd	III	0.22
Angels Camp	City of Angels	Vallecito Rd	North Community Boundary	Hwy 49	III	0.76
County	Angels Camp	Dogtown Rd	North Community Boundary	Gardner Ln	III	8.95
County	Angels Camp	Hwy 4	City of Angels City Limit	West Community Boundary	III	5.64
County	Angels Camp	Hwy 49	City of Angels City Limit	South County Boundary	III	5.09
County	Angels Camp	Hwy 49	North Community Boundary	Brunner Hill Dr	STR	3.04
County	Angels Camp	Murphys Grade Rd	East Community Boundary	Rolleri Bypass Rd	STR	1.84
County	Angels Camp	Pool Station Rd	North Community Boundary	South Community Boundary	III	6.97
County	Angels Camp	Rolleri Bypass Rd	Murphys Grade Rd	Vallecito Rd	III	0.87
County	Angels Camp	Whittle Rd	Hwy 49	Campground	III	5.09
County	Arnold	Henry St	Blagen Rd	Hwy 4	III	0.06
County	Arnold	Hwy 4	East Community Boundary	South Community Boundary	III	4.62
County	Avery	Avery Hotel Rd	Hwy 4	Moran Rd	III	0.13
County	Avery	Hwy 4	Rancho Paradiso	South Community Boundary	III	1.87
County	Avery	Moran Rd	Segale Rd	Avery Hotel Rd	III	0.11
County	Burson	Burson Rd	Comanche Parkway South	Sheri Pl	III	6.20
County	Burson	Hwy 12	Evans Rd	West Community Boundary	STR	2.96
County	Burson/Wallace	Camanche Parkway South	Burson North Community Boundary	Hwy 12	III	8.41
County	Camp Connell	Hwy 4	North Communtiy Boundary	South Community Boundary	III	10.81
County	Copperopolis	Copper Cove Dr	O'Byrnes Ferry Rd	Little John Rd	STR	2.51
County	Copperopolis	Hwy 4	Pool Station Rd	West County Boundary	III	12.90

Jurisdiction	Community	Location	Start	End	Class	Miles
County	Copperopolis	Little John Rd	Oxyoke Lane	Quiver St	II	2.59
County	Copperopolis	Little John Rd	Hwy 4	Oxyoke Ln	STR	0.44
County	Copperopolis	LIttle John Rd	Quiver St	Kiva Pl	STR	2.57
County	Copperopolis	O'Byrnes Ferry Rd	Hwy 4	O'Byrnes Ferry Bridge	STR	7.85
County	Dorrington	Hwy 4	North Community Boundary	East Community Boundary	III	3.94
County	Douglas Flat	Hwy 4	North Community Boundary	South Community Boundary	III	1.25
County	Hathaway Pines	Hwy 4	North Community Boundary	Crescent Cove (Southern Intersection)	III	1.62
County	Jenny Lind	Burson Rd	Sheri Pl	Hwy 26	III	0.54
County	Jenny Lind	Jenny Lind Rd	Hwy 26	Milton Rd	III	1.67
County	Jenny Lind	Milton Rd	Jenny Lind Rd	Hwy 26	III	2.24
County	Jenny Lind	Milton Rd	Mann St	South Community Boundary	III	1.65
County	Milton	Milton Rd	North Community Boundary	South Community Boundary	III	5.53
County	Mokelumne Hill	Hwy 26	Hwy 49	Jesus Maria Rd	III	1.70
County	Mokelumne Hill	Hwy 49	North Community Boundary	Hwy 26	STR	3.24
County	Murphys	Algiers St	Sheep Ranch Rd	Scott St	STR	0.88
County	Murphys	Hwy 4	Tom Bell Rd	South Community Boundary	STR	1.35
County	Murphys	Hwy 4	Crescent Cove	Tom Bell Dr	III	5.71
County	Murphys	Main St	Murphys Grade Rd	Hwy 4	STR	0.71
County	Murphys	Murphys Grade Road	French Gulch Rd	East Community Boundary	STR	3.64
County	Murphys	Pennsylvania Gulch Rd	Hwy 4	Vineyard Terrace	III	1.45
County	Murphys	Scott St	Main St	Six Mile Rd	STR	0.27
County	Murphys	Six Mile Rd	Algiers St	Vallecito Bluffs Rd	III	1.87
County	Rancho Calaveras/Jenny Lind	Hwy 26	Jenny Lind Rd	West Community Boundary	III	4.56
County	San Andreas	Calaveritas Rd	Government Center	South Community Boundary	III	5.64
County	San Andreas	California St	Lewis Ave	Neilson Park	III	0.15
County	San Andreas	Government Center Dr	Mountain Ranch Rd	Government Center Rd	II	0.14
County	San Andreas	Hwy 12	West community boundary	Pool Station Rd	STR	4.16
County	San Andreas	Hwy 49	Pool Station Rd	Angels Rd	II	1.59
County	San Andreas	Hwy 49	Angels Rd	South Community Boundary	STR	6.01
County	San Andreas	Lewis Ave/Pope St/San Andreas Elementary Path	California St	Mountain Ranch Rd	I	0.84
County	San Andreas	Main St	Hwy 12	Nielson Park	III	0.09
County	San Andreas	Mountain Ranch Rd	Pope St	Hwy 49	III	0.41
County	San Andreas	Nielson Park	Main St	California St	III	0.07

Jurisdiction	Community	Location	Start	End	Class	Miles
County	San Andreas	Pool Station Rd	Hwy 49	South Community Boundary	III	5.43
County	San Andreas	Pope St	California St	Lewis Ave	III	0.38
County	San Andreas	San Andreas Elementary Path	Gold Hunter Rd	E End Existing Path	I	0.03
County	San Andreas/Mokelumne Hill	Hwy 49	Hwy 26	Hwy 12	III	7.09
County	Tamarack	Hwy 4	East Community Boundary	South Community Boundary	III	7.41
County	Vallecito	Hwy 4	North Community Boundary	Vallecito Rd	III	4.49
County	Vallecito	Vallecito Rd	Hwy 4	West Community Boundary	III	0.38
County	Valley Springs	Baldwin St	Hwy 26	Milton Rd	II	4.44
County	Valley Springs	Garner Pl	Hwy 26	Baldwin St	II	1.19
County	Valley Springs	Hartvickson Ln	Vista Del Lago Dr	Baldwin St	II	2.89
County	Valley Springs	Hogan Dam Rd	Hwy 26	Hogan Reservoir Recreation Area	STR	2.49
County	Valley Springs	Hwy 12	Lime Creek Rd	East Community Boundary	STR	3.95
County	Valley Springs	Hwy 12	West Community Boundary	Pine St	STR	2.47
County	Valley Springs	Hwy 12	Pine St	Lime Creek Rd	II	0.65
County	Valley Springs	Hwy 26	Hogan Dam Rd	Baldwin St	STR	3.85
County	Valley Springs	Hwy 26	Hwy 12	Hogan Dam Rd	II	0.51
County	Valley Springs	Hwy 26	Baldwin St	Garner Pl	III	0.94
County	Valley Springs	Hwy 26	Garner Pl	Jenny Lind Rd	III	0.57
County	Valley Springs	Silver Rapids Rd	Hartvickson Ln	Hogan Dam Rd	III	1.05
County	Valley Springs	Vista Del Lago Dr	Hwy 26	Hogan Dam Rd	STR	1.40
County	Valley Springs/Paloma	Paloma Rd	Hwy 26	Rose St	STR	7.73
County	Wallace	Hwy 12	East Community Boundary	West Community Boundary	STR	4.31
County	West Point	Hwy 26	North Community Boundary	South Community Boundary	III	8.14
County	West Point	Main St	Pine St	Hwy 26	III	0.40
County	West Point	Main St/Pine St	West Point Pioneer Rd	Hwy 26	III	0.43

Table 3-4: Sidewalk Project Recommendations

Jurisdiction	Community	Location	Start	End	Length (ft.)
Angels Camp	Angels Camp	Hardscrabble	Main St	Mark Twain Rd	490
Angels Camp	Angels Camp	S Main St/Hwy 49	Lee Ln	Bragg St	2100
Angels Camp	Angels Camp	S Main St/Hwy 49	Stanislaus Ave	Mark Twain Rd	400
Angels Camp	Angels Camp	S Main St/Hwy 49	Demarest St	Stanislaus Ave	1370
Angels Camp	Angels Camp	S Main St/Hwy 49	Dogtown Rd	Demarest St	1960

Jurisdiction	Community	Location	Start	End	Length (ft.)
Angels Camp	Angels Camp	S Main St/Hwy 49	Sultana Ln	Mark Twain Rd	780
Angels Camp	Angels Camp	S Main St/Hwy 49	Dogtown Rd	Demarest St	2150
Angels Camp	Angels Camp	S Main St/Hwy 49	Bret Harte Rd (N)	Bret Harte Rd (S)	350
Angels Camp	Angels Camp	S Main St/Hwy 49	Stork Rd	Bret Harte Rd (N)	590
Angels Camp	Angels Camp	S Main St/Hwy 49	Stork Rd	Pine St	1730
Angels Camp	Angels Camp	Vallecito Rd	Depot Rd	Birds Way	1250
County	West Point	Bald Mtn Rd/Pine St	Main St	West Point Elementary School	1150
County	Murphys	Big Trees Rd	Creekview Dr	Bret Harte Dr	430
County	Murphys	Big Trees Rd	Jones St	Hwy 4	1370
County	Valley Springs	Daphne St	Chestnut St	Pine St	1150
County	Valley Springs	Driver Rd/Hwy 26	Jenny Lind Elementary	Baldwin St	2500
County	San Andreas	E St. Charles St/Hwy 49	Pool Station Rd	Angels Rd	8410
County	San Andreas	Government Center Dr	Government Center Rd	Mountain Ranch Rd	326
County	Valley Springs	Hwy 26	Hwy 12	Jean St	640
County	Valley Springs	Hwy 26	Hwy 12	Jean St	620
County	Murphys	Hwy 4	Tom Bell	Albert Michelson El Schl/Penn Gulch Rd	2280
County	Murphys	Hwy 4	Tom Bell	Pennsylvania Gulch	1890
County	Arnold	Hwy 4	Manuel Rd	Henry St	1032
County	Murphys	Main St	Jones St	Scott St	710
County	Murphys	Main St	Scott St	Jones St	960
County	Copperopolis	Main St	School St	Reeds Turnpike	1580
County	San Andreas	Mountain Ranch Rd	Hwy 49	Government Center Dr	2973
County	Copperopolis	O'Byrnes Ferry Rd	Spangler Ln	Cosmic Ct	380
County	Valley Springs	Pine St	Sequoia Ave	Daphne St	290
County	Valley Springs	Sequoia St	Laurel St	Pine St	760
County	San Andreas	W St. Charles St/Hwy 49	High School St	Court St	1070
County	San Andreas	W St. Charles St/Hwy 49	SE Gold Oak Rd	Russell Rd	160

Table 3-5: Crosswalk and Striping Project Recommendations

Jurisdiction	Community	Location	Improvement	Unit
Angels Camp	Angels Camp	Bret Harte Rd & Main St	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Hwy 4 & Main St	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Lee Ln & Main St	Yield Lines	2
Angels Camp	Angels Camp	Main St	Gateway Treatment	1
Angels Camp	Angels Camp	Main St	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Main St & Birds Way	Crosswalk- White High Visibility	1

Jurisdiction	Community	Location	Improvement	Unit
Angels Camp	Angels Camp	Main St & Bret Harte Rd	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Main St & Finnegan Lane	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Main St & Hwy 4	Gateway Treatment	1
Angels Camp	Angels Camp	Main St & Monte Verde St	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Main St & Murphys Grade Rd	Crosswalk - Yellow High Visibility	1
Angels Camp	Angels Camp	Main St & Pine St	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Main St, north of Bragg St	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Raspberry Ln & Main St	Crosswalk- White High Visibility	1
Angels Camp	Angels Camp	Stanislaus Ave & Main St	Crosswalk- White High Visibility	2
Angels Camp	Angels Camp	Stanislaus Ave & Main St	Yield Lines	2
Angels Camp	Angels Camp	Stanislaus Ave & Oneida St	Crosswalk - Yellow High Visibility	1
Angels Camp	Angels Camp	Stanislaus Ave & Oneida St	Yield Lines	1
Angels Camp	Angels Camp	Stanislaus Ave & San Joaquin	Pedestrian Crossing Signs	2
County	San Andreas	Angels Rd & Hwy 49	Gateway Treatment	1
County	Avery	Avery Hotel Rd & Hwy 4	Crosswalk - Yellow High Visibility	1
County	Avery	Avery Hotel Rd & Moran Rd	Crosswalk - Yellow High Visibility	1
County	Arnold	B St & Blagen Rd	Pedestrian Crossing Signs	1
County	Arnold	Blagen Rd & C St	Yield Lines	1
County	Arnold	Blagen Rd & C St	Yield Lines	1
County	Arnold	Blagen Rd & C St	Crosswalk - Yellow High Visibility	1
County	Arnold	Blagen Rd & D St	Yield Lines	1
County	Arnold	Blagen Rd & Dunbar	Crosswalk - Yellow High Visibility	1
County	Arnold	Blagen Rd & Dunbar	Crosswalk - Yellow High Visibility	1
County	West Point	Bouvard St & Pine St	Crosswalk - Yellow High Visibility	1
County	San Andreas	California St & St Charles	Yield Lines	1
County	Valley Springs	Cedar & Daphne	Crosswalk - Yellow High Visibility	1
County	Valley Springs	Cedar & Hwy 26	Yield Lines	2
County	Valley Springs	Cedar & Sequoia	Crosswalk - Yellow High Visibility	1
County	Valley Springs	Cedar St & Hwy 26	Crosswalk- White High Visibility	1
County	San Andreas	Church Hill Rd & St Charles	Yield Lines	1
County	San Andreas	Church Hill Rd & St Charles	Crosswalk- White High Visibility	1
County	Arnold	Dunbar Rd & Blagen Rd	Yield Lines	1
County	Arnold	E St & Main St	Pedestrian Crossing Signs	1
County	Arnold	E St & Main St	Pedestrian Crossing Signs	1
County	San Andreas	Garabaldi Ranch Rd & St Charles	Gateway Treatment	1
County	San Andreas	Gatewood Ave & St Charles	Yield Lines	1
County	West Point	Hwy 26 & Main St	School Speed Limit Signs	1
County	West Point	Hwy 26 & Pine St	School Crossing Stencils	2
County	West Point	Hwy 26 & Pine St	School Speed Limit Signs	1
County	Arnold	Hwy 4 & Arnold Byway	Gateway Treatment	1
County	Avery	Hwy 4 & Avery Hotel Rd	Yield Lines	1

Jurisdiction	Community	Location	Improvement	Unit
County	Arnold	Hwy 4 & Cedar Lane	Gateway Treatment	1
County	Murphys	Hwy 4 & Pennsylvania Gulch Rd	Yield Lines	2
County	Murphys	Hwy 4 & Pennsylvania Gulch Rd	Crosswalk - Yellow High Visibility	1
County	Murphys	Hwy 4 & Tom Bell Rd	Crosswalk- White High Visibility	1
County	Avery	Hwy 4 &Avery Hotel Rd	Pedestrian Improvement Intersection Study	1
County	Valley Springs	Laurel St & Hwy 26	Crosswalk- White High Visibility	1
County	Murphys	Main St & Algiers St	Crosswalk- White High Visibility	1
County	Copperopolis	Main St & Mineral St	Yield Lines	1
County	Copperopolis	Main St & Mineral St	Yield Lines	1
County	Copperopolis	Main St & Mineral St	Crosswalk - Yellow High Visibility	1
County	Murphys	Main St & Scott St	Crosswalk- White High Visibility	1
County	Arnold	Manuel Rd & Hwy 4	Pedestrian Improvement Intersection Study	1
County	Avery	Moran Rd & Sanders Ln	Crosswalk - Yellow High Visibility	1
County	Mountain Ranch	Mountain Ranch Rd & Blacksmith Ave	Yield Lines	1
County	Mountain Ranch	Mountain Ranch Rd & Blacksmith Ave	Yield Lines	1
County	Mountain Ranch	Mountain Ranch Rd & Blacksmith Ave	Crosswalk- White High Visibility	1
County	Copperopolis	O'Byrnes Ferry Rd & Spangler Ln	Pedestrian Improvement Intersection Study	1
County	Murphys	Pennsylvania Gulch Rd & Watkins St	Yield Lines	2
County	Murphys	Pennsylvania Gulch Rd & Watkins St	Crosswalk - Yellow High Visibility	1
County	San Andreas	Russell Rd & St Charles	Yield Lines	2
County	San Andreas	Russell Rd & St Charles	Crosswalk- White High Visibility	1
County	Copperopolis	School St & Main St	Yield Lines	1
County	Copperopolis	School St & Main St	Yield Lines	1
County	Copperopolis	School St & Main St	Crosswalk - Yellow High Visibility	1
County	San Andreas	Snyder Ct & St Charles	Yield Lines	1
County	San Andreas	Snyder Ct & St Charles	Crosswalk - Yellow High Visibility	1
County	Copperopolis	Spangler Ln & O'Byrnes Ferry Rd	Crosswalk- White High Visibility	1
County	West Point	Spink Rd & Main St	Crosswalk - White Transverse	1
County	San Andreas	Treat Ave & St Charles	Crosswalk- White High Visibility	1
County	Mountain Ranch	Whiskey Slide Rd & Mountain Ranch Rd	Pedestrian Crossing Signs	1

3.5.4. Program Improvements

Programs complement engineering improvements such as bike paths, lanes and routes by giving Calaveras County residents the tools they need to safely and confidently travel by walking and bicycling. Project recommendations include continuation of those programs currently administered and those identified by the community, as well additional programs that have proven to be popular and effective in other California cities.

Adult Bicycling Skills Classes

Adult bicycling skills classes enable community members to learn safe bicycling skills. The most common program is the League of American Bicyclists courses, taught by League Certified Instructors. Courses cover bicycle safety checks, fixing a flat, on-bike skills, crash avoidance techniques, and traffic negotiation.

This Plan recommends the City, County and CCOG support other agency or organization efforts to provide adult bicycling skills classes.

Student Bicycle and Pedestrian Traffic Safety Education Classes (Priority Program)

Student education programs are an essential component of a Safe Routes to School effort. Students are taught traffic safety skills that help them understand basic traffic laws and safety rules. Potential pedestrian education curriculum elements include traffic sign identification and how to use a crosswalk.

Typical school-based bicycle education programs educate students about the rules of the road, proper use of bicycle equipment, biking skills, street crossing skills, and the benefits of biking. Education programs can be part of a Safe Routes to School program. These types of education programs are usually sponsored by a joint City/County/School District committee that includes appointed parents, teachers, student representatives, administrators, police, active bicyclists and engineering department staff.

This Plan recommends the community pursue a comprehensive Safe Routes to School Program that includes annual youth pedestrian and bicycle safety education classes.

Student Bike Rodeos

Bike rodeos often include a bicycle safety check, helmet giveaway and fit check, and hands-on instruction for pulling out of driveways, bicycling in traffic, safe turning, and identifying and managing hazardous situations.

This Plan recommends the implementation of a youth bicycle rodeo program.

Smarts - Share the Road Outreach (Priority Program)

Street Smarts and Share the Road outreach campaigns are a way for the city and county to communicate with road users to safely share the road.

A marketing campaign that highlights driver, bicyclist, and pedestrian safety is an important part of encouraging safer behavior and encouraging bicycling and walking. This type of high-profile campaign is an effective way to reach the public, highlight bicycling and walking as viable forms of transportation, and reinforce safety for all road users.

A well-produced safety campaign will be memorable and effective. One good example is the Sonoma County Transit "You've got a friend who bikes!" campaign. It combines compelling ads with an easy-to-use website focused at motorists, pedestrians, and bicyclists.

The City of Davis hosts a student traffic safety poster contest. Elementary students draw posters with traffic safety messages and the project culminates with an art show and ceremony. The winning posters are then produced and mounted throughout the city on bus shelters and street poles.

This type of campaign is particularly effective when kicked off in conjunction with other bicycling/walking events or back to school in the fall. The safety and awareness messages could be displayed near high-traffic corridors (e.g., on banners), printed in local publications, and broadcast as radio and/or television ads.

This Plan recommends the city, county and COG seek funding to implement a Street Smarts-Share the Road outreach campaign.

Walk and Bike to Work Days

Walking and biking to work has many benefits, including reducing the stress associated with driving in rush-hour traffic, reducing health costs by improving worker health, and helping businesses market their environmental sustainability. Many communities participate in Bike to Work Day (May) and Walk to Work Day (April).

This Plan recommends the School Districts and Public Health consider organizing Walk/Bike to Work Days. Local businesses and organizations can host events like energizer stations, education efforts about

Walking School Buses and Bike Trains

Walking school buses and bike trains are organized groups of children walking or biking to school with an adult. They address parental concerns about children walking or biking to school alone. In addition, shifting parents away from driving to school may reduce congestion, improve air quality, and encourage active communities. http://guide.saferoutesinfo.org/walking_school_bus/index.cfm

This sort of program is appropriate for families who live within a mile of school and where there are parent champions who are willing to lead the walking school bus.

This Plan recommends the School Districts and Public Health consider the development of walking school buses and bike trains.

Walk and Bike to School Days

Walk and Bike to School Day is a special event encouraging students to try walking or bicycle to school. Walk and Bike to School Day can be held yearly, monthly, or even weekly— depending on the level of support and participation from students, parents, and school and local officials. Some schools organize more frequent days—such as Walk and Roll Fridays—to give people an opportunity to enjoy the event on a regular basis. Parents and other volunteers accompany the students and staging areas can be designated along the route to school where groups can gather and walk or bike together. These events can be promoted through press releases, articles in school newsletters, and posters and flyers for students to take home and circulate around the community.

This Plan recommends the School Districts and Public Health consider the development of monthly walk and bike to school days.

Tourism Integration (Priority Program)

Calaveras County already enjoys many tourist attractions such as the Arnold Rim Trail, the City of Angels Camp, and the community of Murphys. Additionally, many recreational sport bicycling tours come through Calaveras County.

This Plan recommends bicycling and walking related resources be incorporated into tourism information in order to attract tourists to the region and boost the region's economy. The www.walkandbikecalaveras.org website could include a map of trails, calendar and description of events specific to bicycling and walking, group rides, locations of bicycle rental and repair shops. This could also include information on scenic areas and activities that are accessible by walking or biking.

Targeted Enforcement

Targeted enforcement is focused efforts of police officers. For example, the Sheriff Department conducts pedestrian stings at locations where pedestrians and motorists conflict and do not comply with traffic signals. Similar strategies may be applied to areas with bicycle traffic.

This Plan recommends the City and County coordinate with the Sheriff's Department to conduct targeted enforcement stings at locations known for noncompliance with traffic laws and at high conflict or high bicycle or pedestrian related collision areas.

Speed Feedback Signs and Trailers (Priority Program)

Speed feedback signs and trailers can be used to reduce speeds and enforce speed limit violations in known speeding problem areas. Both the signs and trailers displays the speed of approaching motorists along with a speed limit sign.

These can be used as both an educational and enforcement tool. By itself, it serves as effective education to motorists about their current speed compared to the speed limit. Because speed feedback trailers can be easily removed, they are often deployed on streets where local residents have reported speeding problems.

This Plan recommends the City and County consider speed feedback signs and trailers in areas with reported speeding challenges.

Bicycle and Pedestrian Counts

Pedestrian and bicycle counts and community surveys act as methods to evaluate not only the effectiveness of specific pedestrian and bicycle improvement projects but can also function as way to measure progress towards the region's goals. Communities should consider having pedestrian and bicycle counts conducted as a condition of new development and should expand their traffic counting efforts by:

- Conducting before and after pedestrian, bicycle, and vehicle counts on all roadway projects.
- Exploring the possibility of using automatic counters to collect data on key pedestrian and bicycle corridors. Automatic count technologies can be useful for bicycle count efforts. In-pavement loop detectors accurately count bicycle activity on-street and infrared counters can count pedestrian and bicycle activities on paths.

This Plan recommends the City and County conduct bicycle and pedestrian counts along with all vehicle counts on roadway projects.

Student Hand Tallies and Parent Surveys

Student hand tallies and parent surveys are part of any comprehensive Safe Routes to School effort. While distributing and collecting parent surveys is very time- and labor-intensive, hand tally data are relatively easy to collect and can be analyzed quickly. The National Center for Safe Routes to School provides Student Hand Tally and Parent Survey forms and will enter the data from those forms. This can be a cost effective way to understand how families get to and from school and the reasons for their mode choice.

This Plan recommends conducting student hand tallies and parent surveys with all Safe Routes to School projects.

4. Environmental Analysis

4.1. Aesthetics

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

4.1.1. Background

The State of California has designated twenty-four miles of SR 4 within Calaveras County, from east of Arnold to the Alpine County line, as a California Scenic Highway. The State has also conferred scenic highway status on an additional thirty-two miles of SR 4 within Alpine County, from the Calaveras County line to SR 89. SR 4 between Arnold and Markleeville is also designated as a National Scenic Byway.

Ranching and agriculture play only a small role in the modern Calaveras County economy, providing less than one percent of county jobs. Ranching plays an outsized role, however, in the formation of the landscape of grassy open areas broken by oak trees, barns, corrals, fences, gates, and rock walls that is closely associated with the Sierra foothills, and that visitors and residents often see from Calaveras County's highways.

Most Calaveras County communities date back to the Gold Rush era, and evidence of mining activity is ubiquitous throughout the rural landscape. It is estimated that almost 90,000 people arrived in California in the two years after gold was discovered in 1848. Approximately 50,000 to 60,000 were Americans and the rest were from other countries. Whether arriving overland by horse and wagon or by ship, they all endured extraordinary hardship and risk in the quest for instant riches. As the Gold Rush played out, it left a strong mark on the landscape and culture of the Sierra Nevada, including Calaveras County. Mining activity after the Gold Rush technically ended in 1856, but it has left a mark on the Calaveras County landscape.

The community character in Calaveras County is tied to its historic heritage and rural landscapes. Each community is uniquely distinct from one another, while there are also similarities. Some of the distinctions are a result of population size, elevation level, and the relationship of a given community to highways (SR 4 and SR 49). Some of the communities at lower elevations (to the west) are closest to major urban centers and tend to have larger long-distance commuter populations. Communities at higher elevations (to the east) tend to have fewer commuters, and often depend more strongly on tourism. Communities immediately on SR 4, a major tourist corridor, are somewhat more likely to be sites for significant second home development and tourism-related businesses. The most rural portion of the county, generally speaking, is north of SR 4 and east of SR 49.

4.1.2. Responses to Checklist Questions

a) Would the project have a substantial adverse effect on a scenic vista?

Less than significant impact: Views of scenic resources, scenic water resources, and other scenic resources in the county are available from highways and roadways, including scenic roads and corridors, throughout the county. Improvements to existing infrastructure may result in modification of the foreground of the various scenic viewsheds throughout the county. Individual projects are not anticipated to disrupt scenic vistas.

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

Less than significant impact: While individual projects are not anticipated to damage scenic resources, these projects may involve removal of trees or other visually significant features. Individual projects could also convert areas of open space to developed uses, resulting in a permanent change in views.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than significant impact: The Plan recommends a number of physical improvements that would have visual presence such as bike lanes, shared use paths, sidewalks and other pedestrian safety treatments. These improvements are minor-enough in size and scale and would be regulated through local Code and are not expected to have substantial adverse effect on a scenic vista, damage scenic resources or degrade existing visual character or quality.

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

No impact: The Plan does not include lighting recommendations.

4.2. Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

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

4.2.1. Background

Agriculture plays only a small role in the modern Calaveras County economy, providing less than one percent of county jobs. Agricultural production in Calaveras County was valued at $21,695,800 in 2010. Cattle and calves are the leading farm commodity with a 2010 value of $7,002,000. Poultry is the number two commodity ($4,042,000), followed by wine grapes ($3,120,000) and walnuts ($1,024,000). Production value drops off significantly with the remaining commodities: Christmas trees, sheep and lambs, olives, grain hay, apiary, and pistachios. The California Department of Conservation has not designated any land in Calaveras County as important farmland. There is over 130,000 acres of land under an active Williamson Act Contract.

Calaveras County has a diverse range of forest types and vegetation. Cover types in the County include blue oak foothill pine, blue oak woodlands, montane hardwood, montane hardwood-conifer, and Sierran mixed conifer, Ponderosa pine, Jeffrey pine, and Douglas fir. Sierran mixed conifer is dominated by Jeffrey pine and white fir, with incense cedar, ponderosa pine, sugar pine, and red fir found as associated conifer species. The eastern higher elevations of the county primarily consist of Sierran mixed conifer and large swathes of Ponderosa pine, red fir, and lodgepole pine. Red fir and lodgepole pine are not traditionally used for timber production. The eastern portion of the County contains approximately 78,000 acres of land designated as Timber Production Zone.

The Stanislaus National Forest covers approximately 900,000 acres throughout Alpine, Calaveras, Mariposa, and Tuolumne Counties. This national forest covers 77,901 acres in Calaveras County. Elevations throughout the Stanislaus National Forest range from 840 feet to 11,570 feet. The forest supports a wide variety of wildlife and plant species due to its range in climate, elevation, and geology. The National Forest is also home to the Emigrant Wilderness, Mokelumne Wilderness, and the Carson-Iceberg Wilderness

The timber industry has played an important role in the agricultural field, and the economy in general, in Calaveras County. Christmas trees have consistently been one of the top ten agriculture commodities in the County over the last decade. Trends for timber production has varied from a high of 67,000 million board feet ($19.899 million) in 1999 to a low of 15,700 million board feet ($3.9 million) in 2005. The value and amount of timber production substantially decreased from 2004 to 2005 due to a forest fire and timber harvesting opportunities in an adjacent county.

4.2.2. Responses to Checklist Questions

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

No impact: This Plan does not include conversion of farmland.

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

No impact: Calaveras County has an estimated 630 farms on approximately 201,026 acres. Additionally, the County has over 130,000 acres of land under an active Williamson Act Contract. The Plan includes improvements to the transportation systems throughout the county. Transportation improvements proposed are compatible with agricultural zoning and do not conflict with the active Williamson Act Contracts

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

No impact: Calaveras County has an approximately 78,000 acres of land designated as Timber Production Zone (TPZ). The Project recommends improvements to the transportation systems throughout the county. These improvements are designed to facilitate the Circulation Elements of the applicable General Plans. Transportation improvements proposed are compatible with timber zoning.

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

No Impact: The Plan does not include loss or conversion of forest land to non-forest use.

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

No impact: The Project does not **i**nvolve 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

4.3. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

4.3.1. Background

Mountain Counties Air Basin

Calaveras County is located within the Mountain Counties Air Basin (MCAB), which includes Nevada, Sierra, Plumas, Amador, Calaveras, Tuolumne, Mariposa counties and a portion of El Dorado and Placer County. California air basin boundary designations generally cover areas that share similar meteorological and geographic conditions. The MCAB includes both the western and eastern slopes of the Sierra Nevada Mountains including much of the Sierra foothills. The area covered is approximately 11,000 square miles.

Climate and Topography

Calaveras County exhibits large variations in terrain and consequently exhibits large variations in climate. Elevations range from 300 feet above sea level in the rolling foothills of the western portion of the county, to 8,170 feet above sea level near the county's northeastern border. Deep ravines and steep ridges are found between the foothills and the higher mountains.

Calaveras County's climate lies in a transitional zone between the Sierra Nevada and the San Joaquin Valley. Climate varies significantly due to great differences in elevation. Temperatures in the higher country range from the low 20's to the middle 80's. The lower foothills range in temperature from the low 30's to the high 90's, exceeding 100 degrees at times during the summer months. Rainfall generally increases with altitude, and snow accounts for much of the precipitation in elevations above 3000 feet.

Air Movement

The prevailing wind direction over the county is westerly. However, the terrain of the area has a great influence on local winds, so that wide variability in wind direction can be expected. In the foothills, regional airflow patterns are influenced by the mountainous and hill covered terrain, which direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently occur and trap pollutants close to the ground.

In the summer, the strong upwind valley air flowing into the basin from the west is an effective transport medium for ozone precursors and ozone generated in the Bay Area and the Sacramento and San Joaquin valleys. These transported pollutants predominate as the cause of ozone in the MCAB and are largely responsible for the exceedances of the state and federal ozone Ambient Air Quality Standards in the MCAB. The California Air Resources Board (CARB) has officially designated the MCAB as “ozone impacted” by transport from those areas.

Ambient Air Quality

Both the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for certain criteria pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant. The criteria pollutants include: Ozone (O_3), Carbon monoxide (CO), Nitrogen dioxide (NO2), Sulfur dioxide (SO2), Respirable particulate matter (PM_{10}), and Fine particulate matter ($PM_{2.5}$). The federal and state ambient air quality standards are summarized in Table 4-1.

Table 4-1: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard	Federal Primary Standard
Ozone	1-Hour	0.09 ppm (180 µg/m3)	--
	8-Hour	0.07 ppm (137 µg/m3)	0.075 ppm (147 µg/m3)
PM10	24-Hour	50 µg/m3	150 µg/m3
	Annual	20 µg/m3	--
PM2.5	24-Hour	--	35 µg/m3
	Annual	12 ug/m3	15.0 µg/m3
Carbon Monoxide	8-Hour	9.0 ppm (10mg/m3)	9 ppm (10 mg/m3)
	1-Hour	20 ppm (23 mg/m3)	35 ppm (40 mg/m3)
Nitrogen Dioxide	Annual	0.030 ppm (57 µg/m3)	53 ppb (100 µg/m3)
	1-Hour	0.18 ppm (339 µg/m3)	100 ppb (188 µg/m3)
Sulfur Dioxide	24-Hour	0.04 ppm (105 µg/m3)	--
	3-Hour	--	--
	1-Hour	0.25 ppm (655 µg/m3)	75 ppb (196 µg/m3)

Pollutant	Averaging Time	State Standard	Federal Primary Standard
Lead	30-Day Avg	1.5 µg/m3	--
	Calendar Quarter	--	1.5 µg/m3
	3-Month Avg.	--	0.15 µg/m3

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2013

Notes: ppm = parts per million, ug/m3 = Micrograms per Cubic Meter

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

Attainment Status

The U.S. EPA and CARB are required to designate areas of the as attainment, nonattainment, or unclassified with respect to the applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once.

Calaveras County has a State designation of nonattainment for ozone and PM_{10}, and is either attainment or unclassified for all other criteria pollutants. The county has a national designation of nonattainment for ozone and is designated either attainment or unclassified for the remaining national standards. Table 4-2 presents the state and national attainment status for Calaveras County.

Table 4-2: State and National Attainment Status

Criteria Pollutants	State Designations	National Designations
Ozone	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Unclassified	Unclassified/Attainment
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

Sources: California Air Resources Board (2013).

4.3.2. Responses to Checklist Questions

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

Less than significant: By improving and providing bicycle and pedestrian facilities, the Plan intends to provide opportunities for forms of transportation other than the automobile. These alternative transportation projects could reduce motor vehicle traffic and associated air emissions, and could be

considered to have a beneficial air quality impact. As such, the Plan supports the objectives of the Clean Air Act.

Implementation of the Plan will not conflict with the Air Quality Plan, cause a violation of Air Quality Standards, contribute substantially to an existing air quality violation, or result in a cumulatively considerable net increase of a criteria pollutant in a nonattainment area. Therefore, this is impact is considered ***less than significant***.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than significant: With respect to long-term (operational) emissions, the proposed Plan would involve the construction of bicycle and pedestrian facilities that would provide opportunities for non-motorized transportation. These projects would have the potential to reduce motor vehicle emissions, and would be considered to have a beneficial air quality impact. Therefore, overall, air quality impacts from buildout of the Bicycle Master Plan would be ***less than significant***.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than significant: The Plan proposes bicycle and pedestrian facilities that would provide opportunities for non-motorized transportation. Therefore the Plan would not result in a cumulatively considerable net increase of ozone. and **l*ess than significant*.**

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

Less than significant: The Plan would involve the development of bicycle and pedestrian facilities. The Plan proposes bikeways and pedestrian facilities along designated truck routes. Diesel trucks are a source of diesel particulate matter, a TAC which poses human health risks. As such, buildout of the Plan could potentially locate sensitive receptors including children, seniors, and people with impaired lung functions near existing sources of TACs. It is anticipated that State-wide controls and programs designed to reduce diesel particulate emissions from on-road vehicles will dramatically reduce these emissions in the future. Therefore, the Plan would result in a ***less-than-significant impact*** on sensitive receptors exposed to concentrations of TACs.

e) Would the project create objectionable odors affecting a substantial number of people?

No impact: The bicycle and programs proposed in the Plan would not create objectionable odors. Consequently, the Plan would not result in objectionable odors affecting a substantial number of people and there would be ***no impact***.

4.4. Biological Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☐	☒

4.4.1. Background

California Wildlife Habitat Relationship System

The California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

According to the CWHR there are 20 wildlife habitat classifications in Calaveras County out of 59 found in the state. The California Wildlife Habitats classifications are listed in Table 4-5.

Table 4-5: Habitat and Land Use Acreage for Calaveras County

Land Use/Habitat	Planning Area Acreage	Percent of Planning Area
Agriculture	960	0.14%
Annual Grassland	144,460	21.79%
Barren	3,220	0.49%
Blue Oak Woodland	55,330	8.35%
Blue Oak-Foothill Pine	2,050	0.31%
Chamise-Redshank Chaparral	21,580	3.26%
Douglas-Fir	10,820	1.63%
Jeffrey Pine	2,180	0.33%
Lodgepole Pine	3,840	0.58%
Mixed Chaparral	44,860	6.77%
Montane Chaparral	6,980	1.05%
Montane Hardwood	102,120	15.41%
Montane Hardwood-Conifer	90,130	13.60%
Montane Riparian	20	0.00%
Ponderosa Pine	53,380	8.05%
Red Fir	5,660	0.85%
Sierran Mixed Conifer	94,140	14.20%
Urban	4,720	0.71%

Land Use/Habitat	Planning Area Acreage	Percent of Planning Area
Water	16,020	2.42%
Wet Meadow	370	0.06%
Total	662,840	100.00%

Source: Calaveras County, 2008.

Sensitive Natural Communities

A sensitive natural community is a rare vegetation type that provides important habitat opportunities for wildlife, is structurally complex, or which is of special concern to local, state, or federal agencies. Natural communities that are either known or believed to be of high priority for inventory are listed in the California Natural Diversity Database (CNDDB). The CNDDB identifies two sensitive natural communities in Calaveras County, Big Trees Forest and Ione Chaparral.

- Big Trees Forest is primarily composed of Sierran Mixed Conifer Forest habitat with the addition of giant sequoia (*Sequoiadendron giganteum*). Big Trees Forest also lacks the more xeric species (i.e., drought-tolerant) species found in Sierran Mixed Conifer Forest habitat.
- Ione Chaparral is primarily composed of Ione manzanita (*Arctostaphylos myrtifolia*). Ione Chaparral is found throughout western Amador and northern Calaveras counties on very acidic, nutrient-poor, coarse soils, mostly derived from the Eocene Ione formation.

Railroad Flat Deer Herd

The Railroad Flat Deer Herd is a well-studied migratory herd of predominately California mule deer (*Odocoileus hemionus californicus*) that travel across approximately 550 square miles of land in the central Sierras annually. The herd's annual migratory route takes thousands of animals from the high elevation pine and fir forests of their summer range in Alpine County to the winter range, spring and fall holding areas, and fawning areas in the open oak woodland and oak savanna of the lower foothills and higher elevation timberlands of central and eastern Calaveras County. Portions of these areas have been designated as Critical Winter Range Habitat by the California Department of Fish and Game (CDFG). Nearly 80 percent of the critical winter range is on privately held land. There are at least 6,700 acres in Fish and Game Conservation Easements in Calaveras County that protect the winter range of the herd.

The herd can adapt to most habitat types, but optimum habitat has food and canopy cover types arranged in close proximity. Open oak woodlands near water generally support the highest deer population. Declines in the Railroad Flat Deer Herd since the 1960s are generally attributed to reduced quality and fragmentation of habitat. Overuse of available forage, predation, fire suppression, human encroachment, highway fatalities, wildfires, and drought are all factors contributing to this decline.

Critical Habitat Designation

The Endangered Species Act (ESA) requires the Federal government to designate “critical habitat” for any species it lists under the ESA.

Central Valley Steelhead: The National Oceanic and Atmospheric Administration (NOAA) issued a final rule on September 2, 2005 designating critical habitat for the Central Valley steelhead (Oncorhynchus mykiss), an Evolutionarily Significant Unit (ESU) of steelhead in California. Critical habitat in Calaveras County for this

species is found in a portion of Calaveras County below New Hogan Reservoir. The final rule identified road building/maintenance as one activity that threatens the Central Valley steelhead.

California Tiger Salamander: On August 23, 2005, U.S. Fish and Wildlife Service issued a final rule designating critical habitat for the central population of California tiger salamander (*Ambystoma californiense*). Critical habitat in Calaveras County for this species is generally located southwest of the town of Valley Springs. Calaveras County contains approximately 3,600 acres of designated critical habitat for the California tiger salamander. The Final Rule identified the following threats to the California tiger salamander in the county:

- Activities that could disturb aquatic breeding habitats during the breeding season, such as heavy equipment operation, ground disturbance, maintenance projects (e.g., pipelines, roads, powerlines), off-road travel, or recreation;
- Activities that impair the water quality of aquatic breeding habitat;
- Activities that create barriers impassable for salamanders or increase mortality in upland habitat between extant occurrences in breeding habitat; and Activities that disrupt the ability of vernal pool complexes to support California tiger salamander breeding function (70 FR 49380).

Special Status Species

Special-status species are generally defined as: 1) species listed as a candidate, threatened, or endangered under the federal or state Endangered Species Act; 2) species considered rare or endangered under the California Environmental Quality Act; 3) plants considered "rare, threatened, or endangered in California" by the California Native Plant Society (Lists 1A/1B); 4) animal listed as "species of special concern" by the state; and 5) animals fully protected in California by the Fish and Game Code.

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service's (USFWS) endangered and threatened species lists. The background search was regional in scope and focused on the documented occurrences within the boundaries of Calaveras County.

The search revealed 36 special status species within the region: 20 plants, 16 wildlife. Table 4-6 provides a list of special-status plant and wildlife species that are documented in the region, their habitat, and current protective status. In addition to these species status species, the search revealed two sensitive natural communities.

Table 4-6– Special Status Species documented in Calaveras County

SPECIES	STATUS	HABITAT
Plants		
three-bracted onion *Allium tribracteatum*	--;--;1B	Chaparral, lower montane coniferous forest, upper montane coniferous forest. Volcanic slopes and ridges. 1100-2750M
Ione manzanita *Arctostaphylos myrtifolia*	FT;--;1B	Chaparral, cismontane woodland on Ione clay with chaparral associates. Often comprises 50-80% cover. 75-560M.
Chinese Camp brodiaea *Brodiaea pallida*	FE;CE;1B	Valley and foothill grassland in flat rocky, intermittent streambed on serpentine. 385M.

SPECIES	STATUS	HABITAT
Pleasant Valley mariposa-lily *Calochortus clavatus* var. *avius*	--;--;1B	Lower montane coniferous forest. Josephine silt loam and volcanically derived soil; often in rocky areas. 305-1700M.
Hoover's calycadenia *Calycadenia hooveri*	--;--;1B	Cismontane woodland, valley and foothill grassland on exposed, rocky, barren soil. 65-260M.
Davy's sedge *Carex davyi*	--;--;1B	Subalpine coniferous forest, upper montane coniferous forest. 1500-3200M.
Red Hills soaproot *Chlorogalum grandiflorum*	--;--;1B	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates; often on "historically disturbed" site.
Small's southern clarkia *Clarkia australis*	--;--;1B	Cismontane woodland, lower montane coniferous forest. Occurs on rocky sites in conifer forest or oak woodland. 900-2060M.
beaked clarkia *Clarkia rostrata*	--;--;1B	Cismontane woodland, valley and foothill grassland. North-facing slopes, sometimes on sandstone. 60-460M.
Mariposa cryptantha *Cryptantha mariposae*	--;--;1B	Chaparral on serpentine outcrops.200-650M.
Tuolumne button-celery *Eryngium pinnatisectum*	--;--;1B	Vernal pools, cismontane woodland, lower montane coniferous forest. Volcanic soils; vernal pools and mesic sites within other natural communities. 250-450M.
Delta button-celery *Eryngium racemosum*	--;CE;1B	Riparian scrub. Seasonally inundated floodplain on clay. 3-75M.
spiny-sepaled button-celery *Eryngium spinosepalum*	--;--;1B	Vernal pools, valley and foothill grassland, some sites on clay soil of granitic origin, vernal pools within grassland. 100-420M.
Parry's horkelia *Horkelia parryi*	--;--;1B	Chaparral, cismontane woodland. Openings in chaparral or woodland; especially known from Ione formation in Amador County. 80-1035M.
Ahart's dwarf rush *Juncus leiospermus var. ahartii*	--;--;1B	Vernal pools, restricted to the edges of vernal pools. 30-100M.
Congdon's lomatium *Lomatium congdonii*	--;--;1B	Cismontane woodland, chaparral, serpentine soils with serpentine chaparral plants and grey pines. 300-610M.
Stebbins' lomatium *Lomatium stebbinsii*	--;--;1B	Lower montane coniferous forest, chaparral. Thin gravelly volcanic clay in open yellow pine forest. Grows where other vegetation is absent. 1235-1850M.
yellow-lip pansy monkeyflower *Mimulus pulchellus*	--;--;1B	Lower montane coniferous forest, meadows and seeps. Sandy decomposed granite soils and moist meadows; vernally wet sites. 600-2000M.
Whipple's monkeyflower *Mimulus whipplei*	--;--;1A	Lower montane coniferous forest, hillsides and rocky places in yellow pine forest. One site known. 670M.
pincushion navarretia *Navarretia myersii* ssp. *myersii*	--;--;1B	Vernal pools, valley and foothill grassland. Clay soils within nonnative grassland. 20-330M.

SPECIES	STATUS	HABITAT
Invertebrates		
vernal pool fairy shrimp *Branchinecta lynchi*	FE;--	Endemic to the grasslands of the central valley, central coast mtns., and south coast mtns, in astatic rain-filled pools. Inhabit small, clear-water sandstone depression pools and grassed swale, earth slump, or basalt flow depression pools.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT;--	Associate with its host plant, the elderberry (Sambucus sp.).
Amphibians/Reptiles		
California tiger salamander Ambystoma californiense	FT;CT/CSC	Grassland habitats associated with long-lasting rain pools such as vernal pools or seasonal wetlands for breeding. Also needs ground refuges such as ground squirrel burrows.
western pond turtle Emys marmorata	--;CSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg laying.
foothill yellow-legged frog Rana boylii	--;CSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.
California red-legged frog Rana draytonii	FT;CSC	Lowlands and foothills in or near permanent lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks or permanent water for larval development. Must have access to estivation habitat.
Sierra Nevada yellow-legged frog Rana sierrae	FC;CSC	Always encountered within a few feet of water. Tadpoles may require 2-4 years to complete their aquatic development.
western spadefoot Spea hammondii	--;CSC	Occurs primarily in grassland habitats, but can be found in valley foothill hardwood woodlands. Vernal pools are essentially for breeding and egg-laying.
Birds		
northern goshawk Accipiter gentilis	--;CSC	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine and aspens are typical nest trees.
Tricolored blackbird Agelaius tricolor	--;CSC	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.

SPECIES	STATUS	HABITAT
bald eagle *Haliaeetus leucocephalus*	FD;CE	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within one mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.
Raptors (birds of prey; falcons, hawks, owls, etc.) and other migratory and resident birds	MBTA; §3503.5 DFG Code	Large trees and riparian woodlands for nesting.
Mammals		
pallid bat Antrozous pallidus	--;CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
Townsend's big-eared bat Corynorhinus townsendii	--;CSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from wall and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
western mastiff bat Eumops perotis californicus	--;CSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.
western red bat Lasiurus blossevillii	--;CSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with threes that are protected from above and open below with open areas for foraging.
Pacific fisher Martes pennanti (pacifica) DPS	FC;CSC	Intermediate to large tree stages of coniferous forests & deciduous riparian areas with high percent canopy closure. Uses cavities, snags, logs & rocky areas for cover & denning. Needs large areas of mature, dense forest.

Source: DFG CNDDB 2012

Abbreviations:

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
FPD	Federal proposed for delisting
FPT	Federal proposed threatened
FD	Federal delisted
MBTA	Protected by Migratory Bird Treaty Act
CE	California Endangered Species
CT	California Threatened
CR	California Rare (Protected by Native Plant Protection Act)
CSC	CDFG Species of Special Concern
CC	State candidate for listing
1B	CNPS - Rare, Threatened, or Endangered

4.4.2. Responses to Checklist Questions

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

Less than significant with mitigation: The California Natural Diversity Data Base (CNDDB) search identified 36 documented special-status species within Calaveras County: 20 plants, 16 wildlife. One species is presumed extinct, while all others are presumed present at any given time throughout their habitat range. Some species require **Less than significant with mitigation:** localized micro-habitats, while others are highly mobile and may occur throughout the county. Many of the documented special-status species may be directly or indirectly affected by the Project recommendations if the improvements are to encroach on the species' habitat, or movement corridors. Table 4-6 above provides a list of these species including their habitat, and current protective status.

Construction and maintenance activities associated with the individual projects could result in the direct loss or indirect disturbance of special-status wildlife species or their habitats that are known to occur, or have potential to occur, in the county. Impacts on special-status wildlife species or their habitat could result in a reduction in local population size, lowered reproductive success, or habitat fragmentation. Potential effects on special-status wildlife species associated with individual projects include:

- increased mortality caused by higher numbers of automobiles on new or widened roads;
- direct mortality from the collapse of underground burrows, resulting from soil compaction;
- direct mortality resulting from the movement of equipment and vehicles through the Project area;
- direct mortality resulting from removal of trees with active nests;
- direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- direct mortality resulting from fill of wetlands features;
- loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;
- loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;
- loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- abandoned eggs or young and subsequent nest failure for special-status nesting birds, including raptors, and other non-special status migratory birds resulting from construction-related noises;
- loss or disturbance of rookeries and other colonial nests;
- loss of suitable foraging habitat for special-status raptor species; and
- loss of migration corridors resulting from the construction of permanent structures or features.

The design process for each improvement will involve a level of field reconnaissance to precisely identify the potential for impacts to special status species and to identify project specific design measures that can be employed to avoid or lessen an impact. Project specific design measures may include alternative designs to avoid habitats that are considered more sensitive and required for special status species. An impact would occur if a project would result in a take of a special status species or their habitat. If a project would in fact result in a take of a special status species or their habitat it may be required to go through a

consultation process with the USFWS and/or CDFG for recommendations to avoid or lessen the impacts to these species and their habitats.

Permits may also be required from the USFWS and/or CDFG, and possibly by the local governments if a project design cannot avoid disturbance to special status species or their habitat. Permits are issued by regulatory agencies with conditions that are designed to mitigate the impact to the extent practicable. The proposed project does not directly cause an impact to special status species and the design process for individual improvements listed in the proposed project would require that each project be consistent with the policies that are established in the County and City General Plan for the purpose of protecting biological resources, including special status species that their habitat.

Consistency with the County and City policies as well as adopted federal and state regulations that protect special-status species, including their habitat and movement corridors, would ensure that appropriate design measures, including avoidance, if appropriate, are incorporated into the design of each improvement project. Because the proposed project is a planning document and thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment. There is a possibility that special status species will be affected by a transportation project identified by the Project, due to the extent of special status species throughout the region. The following mitigation measure would ensure that all recommended projects are designed to avoid sensitive biological resources to the greatest extent feasible. Where full avoidance is not possible, the participation in pre-established habitat and special status species protection programs would reduce the impact. Implementation of the following mitigation measure would reduce the impact to a ***less than significant*** level.

Mitigation Measure 1:

Prior to final design approval of projects recommended by the Project, the implementing agency should have a qualified biologist conduct a field reconnaissance of the limits of the project area in an effort to identify any biological constraints for the project, including special status plants, animals, and their habitats, as well as protected natural communities including wetland and terrestrial communities. If the biologist identifies protected biological resources within the limits of the project area, the implementing agency should first, consider alternative designs that seek to avoid and/or minimize impacts to the biological resources. If the project cannot be designed without complete avoidance, the implementing agency should coordinate with the appropriate regulatory agency (i.e. USFWS, NMFS, CDFG, ACOE) to obtain regulatory permits and implement project-specific mitigation prior to any construction activities.

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

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

Less than significant with mitigation: The county contains a variety of natural communities that are generally considered sensitive, such as riparian, oak woodland, streams, rivers, wet meadows, and vernal pools. Streams, rivers, wet meadows, and vernal pools (wetlands and jurisdictional waters) are of high

concern because they provide unique aquatic habitat (perennial and ephemeral) for many endemic species, including special-status plants, birds, invertebrates, and amphibians. These aquatic habitats oftentimes qualify as protected wetlands or jurisdictional waters and are protected from disturbance through the CWA.

The county contains numerous aquatic habitats that qualify as federally protected wetlands and jurisdictional waters. Section 404 of the CWA requires any project that involves disturbance to a wetland or water of the U.S. to obtain a permit that authorizes the disturbance. If a wetland or jurisdictional water is determined to be present, then a permit must be obtained from the USACE to authorize a disturbance to the wetland. Although subsequent improvements may disturb protected wetlands and/or jurisdictional waters, the regulatory process that is established through Section 404 of the CWA ensures that there is "no net loss" of wetlands or jurisdictional waters. If, through the design process, it is determined that an improvement project cannot avoid a wetland or jurisdictional water, then the USACE would require that there be an equal amount of wetland created elsewhere to mitigate any loss of wetland.

The county contains two CDFG designated sensitive natural communities including: Big Trees Forest and Ione Chaparral. The CDFG has also designated a portion of Calaveras County as Critical Winter Range Habitat for the migratory California mule deer (*Odocoileus hemionus californicus*).

The National Oceanic and Atmospheric Administration (NOAA) has designated critical habitat in the County for the Central Valley steelhead. The U.S. Fish and Wildlife Service has designated critical habitat in Calaveras County for the California tiger salamander.

Construction activities associated with recommended projects will occur across a variety of habitats and such activities could result in the disturbance to the habitat. It is not anticipated that any individual project would affect the critical habitat designated for Central Valley steelhead or California tiger salamander. It is possible that an individual project could affect the designated Critical Winter Range Habitat because it spans such a broach portion of the County. Additionally, there is a possibility that natural communities, including wetlands, riparian, sensitive natural communities, will be affected by individual projects.

Detailed plans for the recommended projects have not been developed. Consistency with the applicable County and City policies and federal and state regulations would ensure that appropriate design measures, including avoidance, if appropriate, are incorporated into the design of each improvement project. Because the Project is a planning document and, thus, no physical changes will occur to the environment, adoption of the Project would not directly impact the environment. Implementation of the following mitigation measures, as well as those previously presented, would ensure that all recommended projects are designed to avoid sensitive habitat to the greatest extent feasible. Where full avoidance is not possible, the participation in pre-established habitat protection programs or state/federal permit mitigation programs would offset any potential impacts associated with recommended project implementation. Adherence to the requirements in these mitigation measures would reduce this impact to a ***less than significant*** level.

Mitigation Measure 2:

Prior to construction of a recommended project, the implementing agency shall install orange construction barrier fencing to identify environmentally sensitive areas around habitat. The location of the fencing shall be marked in the field with stakes and flagging and shown on the construction drawings. The fencing shall

be installed before construction activities are initiated and shall be maintained throughout the construction period. The following paragraph shall be included in the construction specifications:

> The Contractor's attention is directed to the areas designated as "environmentally sensitive areas." These areas are protected, and no entry by the Contractor for any purpose will be allowed unless specifically authorized in writing by the Contracting Agency. The Contractor will take measures to ensure that Contractor's forces do not enter or disturb these areas, including giving written notice to employees and subcontractors.

Temporary fences around the environmentally sensitive areas will be installed as the first order of work. Temporary fences will be furnished, constructed, maintained, and removed as shown on the plans, as specified in the special provisions, and as directed by the project engineer. The fencing will be commercial-quality woven polypropylene, orange in color, and at least four feet high (Tensor Polygrid or equivalent). The fencing will be tightly strung on posts with a maximum 10-foot spacing.

Immediately upon completion of construction activities the contractor shall stabilize exposed soil/slopes. On highly erodible soils/slopes, use a nonvegetative material that binds the soil initially and breaks down within a few years. If more aggressive erosion control treatments are needed, geotextile mats, excelsior blankets, or other soil stabilization products will be used. All stabilization efforts should include habitat restoration efforts.

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

Less than significant with mitigation: There are many native fish and wildlife species within the county that migrate or utilize movement corridors. The most notable for their protection status include the Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead trout (*Oncorhynchus mykiss*). The California mule deer (*Odocoileus hemionus californicus*) is a migratory wildlife species that is not recognized as a special-status species, but preserving deer habitat and migration corridors is of concern to the CDFG in many foothill and mountainous regions of California including Calaveras County.

Salmon and Steelhead. Salmon and steelhead trout are anadromous fish species that are present in the San Joaquin and Sacramento River Basins. These River systems have historically supported steelhead trout and four distinct spawning runs of Chinook salmon: fall, late fall, winter, and spring. The fall/late fall-run Chinook salmon is a federal and state species of concern, and a candidate species for federal listing. The spring-run Chinook salmon population is listed as threatened by both federal and state agencies. Winter-run Chinook salmon population is listed as a federally and state endangered species. The Central Valley steelhead was federally listed as threatened in 2003. There is a section of the Calaveras River below the New Hogan Dam that is designated as critical habitat for steelhead.

Riparian habitat is critical for the maintenance of high quality fish habitat. It provides cover, controls temperature, stabilizes stream banks, provides food, and buffers streams from erosion and impacts of adjacent land uses. Riparian vegetation also affects stream depth, current velocity, and substrate composition. It will be important that each individual project include a review of the potential for impacts to riparian habitat, which is critical for the maintenance of high quality fish habitat.

Migratory Deer. The Railroad Flat Deer Herd is a migratory herd of predominately California mule deer (*Odocoileus hemionus californicus*) that travel across approximately 550 square miles of land in the central Sierras annually. The herd's annual migratory route takes thousands of animals from the high elevation pine and fir forests of their summer range in Alpine County to the winter range, spring and fall holding areas, and fawning areas in the open oak woodland and oak savanna of the lower foothills and higher elevation timberlands of central and eastern Calaveras County. Portions of these areas have been designated as Critical Winter Range Habitat by the California Department of Fish and Game (CDFG). Nearly 80 percent of the critical winter range is on privately held land. There are at least 6,700 acres in Fish and Game Conservation Easements in Calaveras County that protect the winter range of the herd.

Linear transportation improvements can cause fragmentation of habitat where species can no longer easily move through an area. This may occur in cases where a linear transportation improvement includes a center barrier to be erected that suddenly affects the ability of a smaller animal, and sometimes, less mobile species, to cross the linear transportation corridor to areas that they previously frequented.

In addition certain fence designs are barriers to deer movement, particularly to does and fawns. Deer-proof or deer-resistant fences around large acreages in winter range and across critical deer migration corridors result in a significant adverse impact on deer populations. Also, the creation of highways and roads are a source of deer mortality.

Conclusion. There are no recommended projects in the vicinity of the portion of the Calaveras River that is designated as critical habitat for steelhead and there are no direct impacts to steelhead or salmon anticipated from individual projects. There is a reasonable chance that native wildlife or wildlife corridors, including migratory deer, will be impacted throughout the buildout of individual projects recommended by the Project.

Detailed plans for the recommended projects have not been developed. Consistency with the applicable County and City policies and federal and state regulations would ensure that appropriate design measures, including avoidance, if appropriate, are incorporated into the design of each improvement project. Because the Project is a planning document and, thus, no physical changes will occur to the environment, adoption of the Project would not directly impact the environment. Implementation of the following mitigation measures, as well as those previously presented, would ensure that all recommended projects are designed to avoid sensitive habitat to the greatest extent feasible. Where full avoidance is not possible, the participation in pre-established habitat protection programs or state/federal permit mitigation programs would offset any potential impacts associated with recommended project implementation. Adherence to the requirements in these mitigation measures would reduce this impact to a ***less than significant*** level.

Mitigation Measure 3:

Prior to design approval of recommended projects that contain movement habitat, the implementing agency shall incorporate economically viable design measures, as applicable and necessary, to allow wildlife or fish to move through the transportation corridor, both during construction activities and post construction. Such measures may include appropriately spaced breaks in a center barrier, or other measures that are designed to allow wildlife to move through the transportation corridor. If the project cannot be designed with these design measures (i.e. due to traffic safety, etc.) the implementing agency

shall coordinate with the appropriate regulatory agency (i.e. USFWS, NMFS, CDFG) to obtain regulatory permits and implement alternative project-specific mitigation prior to any construction activities.

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

No impact: The Project does not conflict with local policies or ordinances protecting biological resources. Implementation of the Project would have ***no impact*** relative to this issue.

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

No impact: Calaveras County does not have an applicable habitat conservation plan or natural community conservation plan. Implementation of the Project would have ***no impact*** relative to this issue.

4.5. Cultural Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

4.5.1. Background

Prehistoric Archaeological Resources

Previous surveys and site investigations in Calaveras County indicate that the prehistoric site types that may be encountered throughout unsurveyed portions of the County may encompass:

- Surface scatters of lithic artifacts associated with or without associated midden accumulations, resulting from short-term occupation, and/or specialized economic activities, or long-term occupation.
- Bedrock milling stations, including mortar holes and metate slicks, in areas where suitable bedrock outcrops are present.
- Petroglyphs and/or pictographs.
- Isolated finds of cultural origin, such as lithic flakes and projectile points.
- Deeply buried sites dating to Archaic periods.
- Ceremonial sites and site of cultural significance.
- Traditional resource gathering sites.

Historic Resources

There are an extensive number of historic properties in the County that have been identified through historic building surveys and previous cultural resource studies. Some of these properties are either listed on or found eligible for listing in the National Register of Historic Places.

Previous surveys and site investigations in Calaveras County indicates that the historic archaeological site types that may be encountered throughout the County may encompass:

- Historic artifact features and buried deposits of historic debris and artifacts.
- Building foundations and associated deposits (homes, businesses, barns, mines, mills, etc).
- Mining remains (shafts, adits, waste rock, tailings)
- Water related (ditches, dams, reservoirs, penstocks)
- Transportation (roads, trails, railways)
- Ranching and Agriculture (terracing, fences, corrals, water troughs)

4.5.2. Responses to Checklist Questions

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less than significant with mitigation: Implementation of projects recommended by the Project may occur near or in close vicinity to architectural resources (buildings/structures/features) that are 50 years old or older. Given the age of these resources, it is possible they are historically significant and eligible for listing in the California Register of Historic Resources (CRHR) or the National Register of Historic Places (NRHP). As recommended projects are designed and reviewed by local jurisdictions, the projects will undergo technical analysis to evaluate any potential impacts to historical resources within their area of potential effect.

Based upon the general planning nature of the Project, development of detailed, site-specific information on this impact at this planning level is not feasible. However, damage to or destruction of historical resources that are considered significant under local, state, or federal criteria would be a significant impact. Implementation of the following mitigation measure would ensure that all recommended projects either avoid known historical resources, or take steps to implement amelioration methods to reduce impacts to known historical resources. This mitigation measure would also require investigations and avoidance methods in the event that a previously undiscovered historical resource is encountered during construction activities. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 4:

During environmental review of projects recommended by the Project, the implementing agencies shall retain a qualified architectural historian to inventory and evaluate architectural resources located in project area using criteria for listing in the California Register of Historic Resources. In addition, the resources would be recorded by the architectural historian on appropriate California Department of Parks and Recreation (DPR) 523 forms, photographed, and mapped. If federal funding or approval is required, then the implementing agency shall comply with Section 106 of the National Historic Preservation Act.

If architectural resources are deemed as potentially eligible for the California Register of Historic Resources or the National Register of Historic Places, the implementing shall consider avoidance through project redesign as feasible. If avoidance is not feasible, the implementing agencies shall ensure that the historic resource is formally documented through the use of large-format photography, measured drawings, written architectural descriptions, and historical narratives. The documentation shall be entered into the Library of Congress, and archived in the California Historical Resources Information System. In the event of building relocation, the implementing agency shall ensure that any alterations to significant buildings or structures conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.

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

Less than significant with mitigation: Most of the recommended projects would be constructed within the existing rights-of-way. Improvements and modifications within existing rights-of-way would have less potential to encounter previously unknown archaeological resources relative to projects in undisturbed areas since the former right-of-way areas have already been disturbed. Improvements and modifications within existing rights-of-way still have potential to adversely affect archaeological resources, either directly or indirectly. As recommended projects are designed and reviewed by local jurisdictions, the projects will undergo technical analysis to evaluate any potential impacts to cultural resources within their area of potential effect. Only a small number of recommended projects would be constructed in previously undisturbed areas.

Based upon the general planning nature of the Project, development of detailed, site-specific information on this impact at this planning level is not feasible. However, damage to or destruction of archaeological resources that are considered significant under local, state, or federal criteria would be a significant impact. Implementation of the following mitigation measures would ensure that all recommended projects either avoid known cultural or historical resources, or take steps to implement amelioration methods to reduce impacts to known cultural or historical resources. These mitigation measures would also require investigations and avoidance methods in the event that a previously undiscovered cultural or historical resource is encountered during construction activities. These mitigation measures would reduce this impact to a ***less than significant*** level.

Mitigation Measure 5:

During environmental review of projects recommended by the Project, the implementing agencies shall consult with the Native American Heritage Commission to determine whether known sacred sites are in the project area, and identify the Native American(s) to contact to obtain information about the project area. Additionally, implementing agencies shall conduct a records search at the Central California Information Center of the California Historical Resources Information System to determine whether the project area has been previously surveyed and whether resources were identified.

In the event the records indicate that no previous survey has been conducted, the Central California Information Center will make a recommendation on whether a survey is warranted based on the archaeological sensitivity of the project area. If recommended, a qualified archaeologist shall be retained to conduct archaeological surveys. The significance of any resources that are determined to be in the project

area shall be assessed according to the applicable local, state, and federal significance criteria. Implementing agencies shall devise treatment measures to ameliorate "substantial adverse changes" to significant archaeological resources, in consultation with qualified archaeologists and other concerned parties. Such treatment measures may include avoidance through project redesign, data recovery excavation, and public interpretation of the resource.

Mitigation Measure 6:

During construction of projects recommended by the Project, the implementing agencies and the contractors performing the improvements shall adhere to the following requirements:

- If a recommended project is located in an area rich with cultural materials, the implementing agency shall retain a qualified archaeologist to monitor any subsurface operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property.
- If, during the course of construction cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) are discovered work shall be halted immediately within 50 meters (165 feet) of the discovery, the implementing agency shall be notified, and a qualified archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to determine the significance of the discovery.
- The implementing agency shall consider mitigation recommendations presented by a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology for any unanticipated discoveries and shall carry out the measures deemed feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project proponent shall be required to implement any mitigation necessary for the protection of cultural resources.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less than significant with mitigation: Most of the recommended projects would be constructed within the existing rights-of-way, which is generally considered to have less potential to encounter previously unknown paleontological resources relative to projects in undisturbed/undeveloped areas. However, improvements and modifications within existing rights-of-way still have the potential to damage or destroy undiscovered paleontological resources especially during deeper excavations.

Based upon the general planning nature of the Project, development of detailed, site-specific information on this impact at this planning level is not feasible. However, damage to or destruction of paleontological resources that are considered significant under local, state, or federal criteria would be a significant impact. Implementation of the following mitigation measure would ensure that all recommended projects either avoid known paleontological resources, or take steps to implement amelioration methods to reduce impacts to known paleontological resources. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 7:

During environmental review of projects recommended by the Project, the implementing agencies shall retain a qualified paleontologist to identify, survey, and evaluate paleontological resources where potential impacts are considered high. All construction activities shall avoid known paleontological resources, if feasible, especially if the resources in a particular lithologic unit formation have been determined to be unique or likely to contain paleontological resources. If avoidance is not feasible, paleontological resources should be excavated by a qualified paleontologist and given to a local agency, State University, or other applicable institution, where they could be curated and displayed for public education purposes.

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

Less than significant with mitigation: Indications are that humans have occupied Calaveras County for at least 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials. Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Additionally, Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during Project implementation. Implementation of the following mitigation measure would ensure that all recommended project construction activities that inadvertently discover human remains implement state required consultation methods to determine the disposition and historical significance of any discovered human remains. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 8:

In the event of discovery or recognition of any human remains during construction or excavation activities associated with a project recommended by the Project, the implementing agency shall cease further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the following steps are taken:

- The Calaveras County Coroner has been informed and has determined that no investigation of the cause of death is required.
- If the remains are of Native American origin, either of the following steps will be taken:
    - The coroner will contact the Native American Heritage Commission in order to ascertain the proper descendants from the deceased individual. The coroner will make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, which may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains.
    - The implementing agency or its authorized representative will retain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance when any of the following conditions occurs:
        - The Native American Heritage Commission is unable to identify a descendent.
        - The descendant identified fails to make a recommendation.

- The implementing agency or its authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

4.6. Geology and Soils

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:				
ii) 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?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

4.6.1. Background

Regional Geology

Calaveras County lies within the geologic region of California referred to as the Sierra Nevada geomorphic province. The Sierra Nevada geomorphic province is a tilted fault block almost 400 miles long. The province extends from the eastern slope to the western slope of the Sierra Nevada Mountains. Calaveras County is located on the western slope of the Sierra Nevada. Though no major river or glaciated canyons are found within the County, the western slope of the Sierra Nevada is marked by these canyons, including the scenic Yosemite Valley located south of the County. This province overlies metamorphic bedrock that contains gold-bearing veins in the northwest trending Mother Lode. The Mother Lode region in the Sierra Nevada extends from El Dorado County, passes through Calaveras County, and terminates in Mariposa County.

Seismicity

The geographic distribution of earthquake activity is referred to as seismicity. Seismicity can result in hazards caused by fault displacement and rupture, ground shaking, liquefaction, lateral spreading, and landslides. Seismicity is generally measured based on the amount of energy released at a fault.

The county lies within Seismic Risk Zone 3, which poses a lesser risk than those experienced in Zone 4 (such as the San Francisco Bay Area located 100 miles away). The estimated maximum (moment) magnitudes (Mw) represent characteristic earthquakes on particular faults. The county may be affected by regionally occurring earthquakes; however, impacts resulting from such an event would be less in nature than those experienced in the San Francisco Bay Area.

Fault Systems

Seismicity is directly related to the distribution of fault systems within a region. Depending on activity patterns, faults and fault-related geologic features may be classified as active, potentially active, or inactive. The nearest potentially active faults (Quaternary/Late Quaternary) are within the Bear Mountains Fault Zone and Melones Fault Zone, which pass through the western portion of the County. Potentially active faults near Valley Springs and Mokelumne Hill include Youngs Creek, Waters Peak, Poorman Gulch, and Haupt Creek faults. Potentially active faults near Copperopolis include Bowie Flat, Green Springs Run, Rawhide Flat East, and Rawhide Flat West faults. There is little information known about these faults other than their potential for activity. Additionally, the Foothills Fault System is considered potentially active and passes through the western portion of the County. The Foothills Fault System has a maximum moment magnitude of 6.5.

The nearest active fault outside of Calaveras County is the Genoa fault, also known as the Carson Valley fault, which is 25 miles northeast of the county. The Genoa fault has an estimated maximum moment magnitude of 6.9. Other identified potentially active faults outside the county include the Vernalis fault, approximately 40 miles west of the county, and the Antelope Valley and Slinkard Valley faults, which are located near the Genoa fault.

Seismic Hazards

Seismic Ground Shaking. The potential for seismic ground shaking in California is expected. As a result of the foreseeable seismicity in California, the State requires special design considerations for all structural

improvements in accordance with the seismic design provisions in the California Building Code. These seismic design provisions require enhanced structural integrity based on several risk parameters.

Fault Rupture. A fault rupture occurs when the surface of the earth breaks as a result of an earthquake, although this does not happen with all earthquakes. These ruptures generally occur in a weak area of an existing fault. Ruptures can be sudden (i.e. earthquake) or slow (i.e. fault creep). The Alquist-Priolo Fault Zoning Act requires active earthquake fault zones to be mapped and it provides special development considerations within these zones. Calaveras County does not have any Alquist-Priolo Earthquake Fault Zones and the risk of surface fault rupture within the County is considered low

Liquefaction. Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet. Calaveras County is not considered to be at a high risk from liquefaction hazards.

Lateral Spreading. Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Calaveras County is considered to be at a low risk of hazards of lateral spreading.

Landslides. Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). There are areas throughout the County with slopes greater than 20 percent, which increases the risk of landslides in the event of a high amount of rainfall or snowmelt. Generally speaking, potential for landslides is higher in the eastern portion of the County where there are more slopes that are 20 percent or greater. Landslides are considered remote in the valley floors areas due to the lack of significant slopes.

Erosion

Erosion naturally occurs on the surface of the earth as surface materials (i.e. rock, soil, debris, etc.) is loosened, dissolved, or worn away, and transported from one place to another by gravity. Two common types of soil erosion include wind erosion and water erosion. The steepness of a slope is an important factor that affects soil erosion. Erosion potential in soils is influenced primarily by loose soil texture and steep slopes. Loose soils can be eroded by water or wind forces, whereas soils with high clay content are generally susceptible only to water erosion. The potential for erosion generally increases as a result of human activity, primarily through the development of facilities and impervious surfaces and the removal of vegetative cover. Calaveras County contains a wide range of soils that have varying levels of susceptibility to erosion, ranging from slight to extremely high.

4.6.2. Responses to Checklist Questions

a) Would the project 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?

ii) Strong seismic ground shaking?

Responses a.i-ii):

Less than significant with mitigation: There are numerous potentially active faults located within Calaveras County; however, there are no Alquist-Priolo Earthquake Fault Zones. There will always be a chance that a fault located anywhere in the state (or region) could rupture and cause seismic ground shaking. All recommended projects would be required to conduct seismic hazard evaluations and comply with all appropriate building code provisions. The following mitigation measure would require individual projects to include appropriate seismic designs to accommodate the potential for seismicity. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 9:

Prior to approval of building plans for projects recommended by the Project, the implementing agency shall ensure that a project specific seismic hazard evaluation is prepared to address seismic constraints. Where a seismic constraint is identified, appropriate building design methods, in accordance with the California Building Code, shall be incorporated into the building design to fully address any seismic constraint.

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

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

Less than significant with mitigation: As discussed in (a.iii-iv) above, there are areas throughout the county that have steeper slopes where the potential for loss of topsoil and erosion is relatively high. Some of the recommended projects would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters.

The following mitigation measure requires a project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each recommended project that disturbs an area one acre or larger. The SWPPPs will include project specific best management measures that are designed to control drainage and erosion. Furthermore, each individual project will include detailed project specific drainage plans that control storm water runoff and erosion, both during and after construction. The SWPPP and the project specific drainage plans would reduce the potential for erosion. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 10:

The implementing agency shall comply with NPDES General Construction Permit requirements to reduce or eliminate construction-related water quality effects. The implementing agency shall prepare and maintain a SWPPP during construction for projects recommended by the Project, which shall include BMPs

and technology to reduce erosion and sediments. Measures may include, temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover). During construction, the implementing agency shall ensure that control measures and practices are implemented, properly installed, and maintained during the construction of a recommended project. The implementing agency shall inspect the sites to verify that SWPPPs are being implemented at the construction sites. The lead agency shall develop and implement record keeping and data management procedures for evaluation of SWPPP compliance and reporting.

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

Responses a.iii-iv), c):

Less than significant with mitigation: Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. From a regional perspective, the soils located within the County are considered to have a low potential for liquefaction. There is a potential for soil inclusions that have a higher liquefaction potential. The highest risk for liquefaction is expected along rivers, creeks, and drainages within the County.

There are areas throughout Calaveras County that are prone to landslides. In particular, the eastern portion of the county has a higher probability of landslides based on the steeper slopes. There will be an ongoing potential for eastern areas of the county to be or become unstable and result in landslides at some time.

The following mitigation measure would require each recommended project to have a specific geotechnical study prepared and incorporated into the design. The geotechnical study would identify specific soil conditions, surface and subsurface drainage capability, slope steepness, and other factors that may contribute to landslide risk as well as soil inclusions that pose a higher risk of liquefaction. The geotechnical study would provide recommendations for mitigating any potential risk associated with site specific conditions. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 11:

Prior to approval of improvement plans for projects recommended by the Project, the implementing agency shall ensure that a project specific geotechnical report is prepared to address geotechnical constraints. Where a geotechnical constraint is identified, appropriate and proven geotechnical engineering methods shall be incorporated into the project design to fully address the geotechnical constraint.

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

Less than significant: Expansive soils are those that shrink or swell with the change in moisture content. The volume of change is influenced by the quantity of moisture, by the kind and amount of clay in the soil, and by the original porosity of the soil. Shrinking and swelling can damage roads and other structures unless special engineering design is incorporated into the project plans.

As identified in a previous mitigation measure, each recommended project would be required to have a specific geotechnical study prepared and incorporated into the design. The geotechnical study would identify the specific soil conditions that may contribute to soil expansion. Based on specific findings at each locality, the geotechnical engineer will recommend detailed engineering measures that are necessary to reduce the risks associated with soil expansion. Implementation of project-specific geotechnical engineering measures would reduce the risks from soil expansion to a reasonable level for individual projects. Implementation of the Project itself would result in a ***less-than-significant*** impact on soil expansion.

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

No impact: The Project would not result in the generation of sewer water or the expansion of septic infrastructure. Implementation of the Project would have ***no impact*** on this environmental issue.

4.7. Greenhouse Gas Emissions

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

4.7.1. Background

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture solar heat as it is radiated from the surface of the earth back into the atmosphere, creating a warming effect like that of a greenhouse. The accumulation of GHGs in the earth's atmosphere has been linked to global climate change, often described as changes in the climate of the earth caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere. California State law recognizes the following gases as GHGs: Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. The principal sources of GHG emissions are transportation and electric power generation. Taken together these two sources emit approximately 74 percent of GHGs in the State.

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which Statewide emission of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32), which requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions).

AB 32 establishes a timetable for the CARB to adopt emission limits, rules, and regulations designed to achieve the intent of the Act. The CARB Board approved in 2008, then re-approved in 2011, the AB 32 Scoping Plan, which presents a strategy for meeting the 2020 greenhouse gas reduction limits outlined in AB 32. In order to meet these goals, California must reduce their greenhouse gases by 30 percent below projected 2020 levels, or about 10 percent from today's levels.

On September 30, 2008, Governor Schwarzenegger signed into law SB 375. SB 375 focuses on housing and transportation planning decisions to reduce fossil fuel consumption and conserve farmlands and habitat. SB 375 provides a path for improved planning by providing incentives to locate housing developments closer to where people work and go to school, allowing them to reduce vehicle miles traveled every year. Finally, SB 375 provides certain exemptions under CEQA law for projects that are proposed consistent with local plans developed under SB 375.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25 to 35 percent under the lower warming range, to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snow pack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snow pack, increasing the risk of summer water shortages.

The state's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major state fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25 percent of the water supply they need; and decrease the potential for hydropower production within the state (although the effects on hydropower are uncertain).

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snow pack by as much as 70 to 90 percent. Under the lower warming scenario, snow pack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snow pack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snow pack would pose challenges to water managers, and hamper hydropower generation.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development will change, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures could worsen ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products that could be most affected include wine grapes, fruits and nuts, and milk.

In addition, continued global warming could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global warming could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to intensify this threat by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30 percent toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90 percent.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the state. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the state's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

4.7.2. Responses to Checklist Questions

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

Less than significant: Implementation of the Project would result in short term emissions of GHGs during construction. These emissions, primarily carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), are the result of fuel combustion by construction equipment and motor vehicles. The other primary GHGs (hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) are typically associated with specific industrial sources and are not expected to be emitted by Project. As described in the air quality section, the use of heavy-duty construction equipment would be very limited. Therefore the emissions of CO_2 from construction would be minimal.

The Project includes bicycle and pedestrian facility improvements and programs aimed at increasing walking and bicycling trips. The Project would not result in direct annual emissions of GHGs during operation that have a significant impact on the environment. The Project will have a ***less than significant*** impact overall.

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

No impact: As described previously, the state legislature and the global scientific community have found that global climate change poses significant adverse effects to the environment. To mitigate these adverse effects the state legislature enacted AB 32, which requires statewide GHG reductions to 1990 levels by 2020.

While AB 32 is the legislation that targets the reduction of statewide GHG emissions, SB 375 is the implementing legislation that establishes regional GHG emission reduction targets. AB 32 does not specify that the emissions reductions should be achieved through uniform reduction by geographic location or by emission source characteristics. It is generally accepted that significant GHG emission reductions are more achievable in larger urban and metropolitan areas, compared to rural areas. As such, CARB established reduction targets principally in urban and metropolitan areas of California.

On September 23, 2010 CARB approved GHG reduction targets for each of the 18 metropolitan planning organizations (MPOs) in California. Each MPO now must prepare a "sustainable communities strategy (SCS)" that demonstrates how the region will meet its GHG reduction target through integrated land use, housing and transportation planning.

Calaveras County is not covered by an MPO, and is not subject to SB 375 or the emission reduction targets established by CARB. Rather, Calaveras County is considered an isolated rural regional transportation planning area. Calaveras County Council of Governments does not have land use planning authority within Calaveras County to control population growth, which is directly responsible for increases in GHG emission. However, Calaveras County Council of Governments does coordinate with the local land use agencies and support transportation funding decisions that result in improvements and efficiencies in the transportation systems. An overreaching goal for this coordination effort is to minimize VMT and trips per capita throughout the county, which ultimately translates into improvements of GHG emissions per capita.

As discussed above, implementation of the Project will not conflict with AB 32 or SB 375. There are no other plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases in Calaveras County. Therefore, this is impact is considered ***no impact***.

4.8. Hazards and Hazardous Materials

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

4.8.1. Background

Hazardous Materials

A "hazardous material" is a substance or combination of substances that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a potential hazard to human health or the environment when handled improperly.

Hazardous Sites

The Department of Toxic Substances Control maintains a list of all Cleanup Sites and Hazardous Waste Facilities, including the status, within the Envirostor database. The database includes the following: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, Evaluation/Investigation Sites, Permitted - Operating, Post-Closure Permitted, and Historical Non-Operating.

As of May 21, 2012, there were 22 locations in the county that were registered with the Department of Toxic Substances Control. Of these sites, only one is listed as Active. All other sites have been referred to other agencies, de-listed, or determined that no action is required, or that an evaluation is needed. Table 10 lists all sites listed in the Envirostor database in Calaveras County.

Table 4-7 – DTSC Envirostor Database

SITE/FACILITY NAME	SITE TYPE	STATUS	ADDRESS	CITY
AL-CHEM, INC.	Evaluation	Refer: Other Agency	SR 26 and 12	San Andreas
ALONSO'S AUTO DISMANTLERS	Historical	Refer: Other Agency	SR 26 and 12	San Andreas
ANGELS AUTO BODY	Historical	Refer: Other Agency	Dogtown Rd.	Altaville
ANGELS CAMP TOWNE CENTER SITE	Voluntary Cleanup	Active – Land Use Restr.	260 South Main St.	Angles Camp
AVERY MIDDLE SCHOOL EXPANSION	School Investigation	No Action Required	4595 Moran Rd.	Avery
B & B AUTO WRECKERS	Historical	Refer: Other Agency	2258 Evans Rd.	Burson
BLACKSTONE MINE	Historical	Refer: RWQCB	One mile from paved end of Spink Rd.	West Point
BLAZING STAR MINE	Evaluation	Refer: RWQCB	Bald Mountain Rd.	West Point

SITE/FACILITY NAME	SITE TYPE	STATUS	ADDRESS	CITY
CARSON HILL GOLD MINING CORPORATION	Evaluation	Refer: RWQCB	4795 SR 49	Angles Camp
COPPER COVE MIDDLE SCHOOL	School Cleanup	Inactive - Needs Evaluation	Copper Cove / Black Creek Dr.	Copperopolis
COPPER COVE VILLAGE SUBDIVISION	State Response	* De-listed	Quail HIll Rd.	Copperopolis
COPPEROPOLIS HIGH SCHOOL	School Cleanup	Inactive - Needs Evaluation	Little John Rd.	Copperopolis
COPPEROPOLIS MINES	Evaluation	Inactive - Needs Evaluation	Copper Creek Drainage from North Copperopolis to Blacks Creek	Copperopolis
DEXTER ROGERS CONSTRUCTION	Historical	Refer: Other Agency	Harte Viction	Valley Springs
GENSTAR CEMENT COMPANY	Historical	No Action Required	2965 Pool Station RD.	San Andreas
MARK TWAIN ST. JOSEPH'S HOSPITAL	Calmortgage	No Action Required	768 Mountain Ranch Rd.	San Andreas
MOORE CREEK MINING COMPANY	Historical	Refer: RWQCB	1/2 mile upstream of the Mokelumne River	West Point
MOUNTAIN OAKS CHARTER SCHOOL AND CALAVERAS RIVER ACADEMY	School Cleanup	Certified / Operation and Maintenance	1250 Pool Station Rd.	San Andreas
PENN MINE	Evaluation	Refer: RWQCB	Needs to be determined	Valley Springs
RED HILL SANITARY LANDFILL	Evaluation	Refer: RWQCB	Southwest of Vallecito	Vallecito
SNIDER FOREST PRODUCTS	Evaluation	Refer: RWQCB	West SR 12	Wallace
SURVIVAL TRG AX SITE NE 1	Military Evaluation	Inactive - Needs Evaluation		Hogan Lake, Valley Springs

Source: Department of Toxic Substances Control 2012

The State Water Resources Control Board (SWRCB) maintains a list of a variety of sites, including the status, within the Geotracker database. The database includes the following: Leaking Underground Storage Tank (LUST) Cleanup Sites, Other Water Board Cleanup Sites, Land Disposal Sites, Land Disposal Sites, WDR Sites

As of May 21, 2012, there were 37 locations in the county with an open status with the SWRCB. Of these sites, 19 are LUST Cleanup sites, five are program cleanup sites, and 13 are land disposal sites. Table 11 lists all sites listed in the Geotracker database in Calaveras County.

Table 4-8 – SWRCB Geotracker

SITE / FACILITY NAME	SITE TYPE	STATUS	ADDRESS	CITY
ALTAVILLE FOREST FIRE STATION	LUST Cleanup	Open - Verification Monitoring	125 Main St.	Altaville
ALTAVILLE MAINTENANCE STN	LUST Cleanup	Open - Remediation	154 Monte Verde Rd.	Altaville
BECK PROPERTY	LUST Cleanup	Open - Verification Monitoring	4549 SR 4	Avery
BUSI CHEVRON	LUST Cleanup	Open - Verification Monitoring	8 California St. E.	Valley Springs
C & L CYCLE	LUST Cleanup	Open - Site Assessment	238 St. Charles St.	San Andreas
COPPER SALOON	LUST Cleanup	Open - Remediation	86 & 102 Main St.	Copperopolis
COPPER SALOON / COPPER HOTEL	LUST Cleanup	Open - Verification Monitoring	86 & 102 Main St.	Copperopolis
FOREST MEADOWS GOLF COURSE	LUST Cleanup	Open - Site Assessment	1042 Forest Meadows Dr.	Murphys
GAS MART	LUST Cleanup	Open - Verification Monitoring	141 West Charles St.	San Andreas
GLENCO STORE/ONE STOP STATION	LUST Cleanup	Open - Remediation	15138 SR 26	Glencoe
HERB'S CORNER/CENTURY 21	LUST Cleanup	Open - Verification Monitoring	6 California St. (aka: 87 SR 12)	Valley Springs
RON'S SIERRA SUPER STOP/EXXON	LUST Cleanup	Open - Remediation	103 SR 12	Valley Springs
SIERRA ENERGY	LUST Cleanup	Open - Site Assessment	716 Poole Station Rd.	San Andreas
SIERRA TRADING POST #8	LUST Cleanup	Open - Site Assessment	8026 SR 49	Mokelumne Hill
STAR GAS	LUST Cleanup	Open - Verification Monitoring	22645 SR 26	West Point
TOM'S SIERRA BULK PLANT # 42	LUST Cleanup	Open - Assessment and Interim Remedial Action	746 Pool Station Rd.	San Andreas
TOM'S SIERRA TIRE #72	LUST Cleanup	Open - Site Assessment	716 Pool Station Rd.	San Andreas
TOWER MART #864	LUST Cleanup	Open - Assessment and Interim Remedial Action	1049 South Main St.	Angles Camp
WEST POINT EXXON	LUST Cleanup	Open - Verification Monitoring	347 Main St.	West Point
ANGELS CAMP GUN CLUB	Cleanup Program	Open - Inactive	2403 Gun Club Rd.	Angles Camp
CALAVERAS TOOL RENTAL (FORMER)	Cleanup Program	Open - Inactive	632 West St. Charles St.	San Andreas
PESTICIDE DUMP SITE	Cleanup Program	Open - Inactive	Gregory Rd.	Valley Springs
SAVE MART NO. 46	Cleanup Program	Open - Inactive	260 South Main St.	Angles Camp
WELLS FARGO BANK SAN ANDREAS	Cleanup Program	Open - Assessment and Interim Remedial Action	169 St. Charles Street E	San Andreas
BLAZING STAR MILL/MINE	Land Disposal	Open	Jurs Rd.	West Point
CALAVERAS CEMENT COMPANY	Land Disposal	Open	2965 Pool Station Rd.	San Andreas

SITE / FACILITY NAME	SITE TYPE	STATUS	ADDRESS	CITY
CALAVERAS CEMENT COMPANY	Land Disposal	Open	Poole Stat. Rd., Kentucky House	San Andreas
CALIF ASBESTOS MONOFIL	Land Disposal	Open	O'Bynes Ferry	Copperopolis
CARSON HILL ROCK PRODUCTS	Land Disposal	Open	4795 SR 49	Angles Camp
CARSON HILL ROCK PRODUCTS	Land Disposal	Open	4795 South SR49	Angles Camp
MINE RUN DAM	Land Disposal	Open	Penn Mine Rd.	Campo Seco
PENN MINE	Land Disposal	Open	Penn Mine	Campo Seco
RED HILL MINE	Land Disposal	Open	Red Hill	Angles Camp
RED HILL SWDS	Land Disposal	Open	Red Hill Access	Vallecito
ROCK CREEK LANDFILL	Land Disposal	Open	12021 Hunt	Milton
ROYAL MT KING MINE -MINE WASTE	Land Disposal	Open	4461 Rock Creek	Copperopolis
ALTO GOLD MINE	Land Disposal	Open		Copperopolis

Source: State Water Resources Control Board 2012

Hazardous Minerals

Asbestos is a term applied to several types of naturally occurring fibrous materials found in rock formations throughout California. Asbestos is commonly found in ultramafic rock, including serpentine, which is abundant in the foothills of the Sierra Nevada. Asbestos has been mined in several localities throughout the Sierra Nevada.

Serpentine rock, which often contains asbestos, has also been used extensively as base material in the construction of new roads. Exposure and disturbance of rock and soil that contains asbestos can result in the release of fibers to the air and consequent exposure to the public. All types of asbestos are now considered hazardous and pose public health risks. The use of asbestos-containing materials is regulated by the California Air Resources Board (CARB).

Ultramafic rock occurs within the western portion of the County and generally extends north to southwest following the Bear Mountain and Melones Fault Zones. Specifically, areas identified as potentially containing naturally occurring asbestos include the following:

- From Pardee Reservoir extending southwest through the Valley Springs area to just southeast of New Hogan Reservoir;
- In the area north of Copperopolis extending southeast through New Melones Reservoir;
- In the Mountain Ranch area.

Wildland Fire Hazards

Wildland fires are a major hazard in the State of California. Wildland fires burn natural vegetation on developed and undeveloped lands and include timber, brush, woodland, and grass fires. While low intensity wildland fires have a role in the County's ecosystem, wildland fires put human health and safety, structures (e.g., homes, schools, businesses, etc.), air quality, recreation areas, water quality, wildlife habitat and ecosystem health, and forest resources at risk.

Wildland fire hazards exist in varying degrees over the majority of the County. The highest wild fire risk to human health and safety occurs in the communities where people reside and work, which is referred to as the urban-wildland interface. Fires that occur within the urban-wildland interface areas affect natural resources as well as life and property. Historically, Calaveras County has experienced several large and damaging wildfires in and around the wildland urban interface areas. All of the County is designated with a High Fire Hazard Rating.

4.8.2. Responses to Checklist Questions

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

Less than significant. The Plan includes bicycle and pedestrian facility and programmatic improvements and would not involve the routine, use transport, and/or disposal of hazardous materials. The would not require the use or transportation of hazardous materials within the Plan area. Implementation of individual Plan projects would result in the limited use, transportation, and storage of hazardous materials during the construction phase. There would be limited use of gasoline, diesel fuel, tar and other similar substances in the construction of the proposed bicycle and pedestrian facilities. These substances would be used in small amounts and would have to be handled in accord with California Occupational Health and Safety Administration (CalOSHA) standards. Although paints, solvents, cleansers, gasoline, diesel fuel, tar and other hazardous materials may be used during construction of the projects, the quantities of such products are not expected to be large enough to create a potential health hazard. The impact is considered less than significant.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than significant: The Plan does not propose new land uses which would require the routine transport, use, or disposal of hazardous substances. The proposed improvements are located within roadway rights-of-way, which were largely disturbed during construction of the roadways. The use and handling of hazardous materials during construction activities is required to occur in accordance with applicable federal and state laws, including CalOSHA requirements. The impact is considered **less than significant.**

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

Less than significant: There are numerous schools throughout Calaveras County. It is possible that one, or more, of the individual improvements is located within ¼ mile of a school. Hazardous materials used in construction of a project in the vicinity of a school could be accidentally released. In the event of a hazardous materials spill or release, notification and cleanup operations would be performed in compliance with federal and state regulations to mitigate hazards to people and the environment.

Implementation of individual improvements would require construction activities, including grading, which has the potential to release naturally occurring asbestos into the air. This is a potentially significant impact to construction workers and citizens in the region. However, each improvement project will require

a geotechnical study to be performed. The study will identify the soil types and the presence of soils and rock types, including those that could contain naturally occurring asbestos. If asbestos is deemed present, the proposed project would be required to comply with the AQMD's "Fugitive Dust Prevention and Control and Asbestos Hazard Dust Mitigation Plan" during project construction. Implementation of the Project would result in a ***less-than-significant*** impact.

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

No impact: No properties in the Plan area are included on the "Cortese" list. Implementation of the r Plan would not create a significant hazard to the public or the environment. There is no impact.

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

No impact: The Project would involve the development of bicycle and pedestrian facilities for use in commuting, recreation, and utilitarian trips. Such transient use of these facilities would not result in any safety impacts related to the airport. **No impact** is anticipated.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No impact: The project is not in the vicinity of any private airstrips; therefore, there is no impact.

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

Less than significant with mitigation: Construction of individual projects may result in temporary road closures, traffic detours, or congestion, which may hinder the emergency vehicle access or evacuation in the event of an emergency. The following measure requires implementing agencies to prepare a Transportation Management Plan (TMP) if such a plan is deemed necessary by the implementing agency. Implementation of the following measure would ensure the Project would result in a ***less-than-significant*** impact.

Mitigation Measure 12:

The implementing agencies shall assess the necessity of a Transportation Management Plan (TMP) on a project-by-project basis. If the recommended project will result in road closures, traffic detours, or congestion on main thoroughfares or roads that provide primary access to populated areas, a TMP shall be prepared prior to the initiation of project construction. The TMP will be provided to all emergency service providers in the construction area and will notify them of anticipated dates and hours of construction, as well as any anticipated limits on access. Notice will be provided at least five days before construction begins.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less than significant: The transportation improvements identified in the Project would not result in the construction of structures that would be occupied by humans; therefore, it would not expose people or structures to a significant risk involving wild fires. The Project provides for improvements to transportation systems throughout the county, which is expected to improve the ability for fire protection services to access areas that have a very high hazard rating. Implementation of the proposed project would result in a ***less-than-significant*** impact.

4.9. Hydrology and Water Quality

Would the project:

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☒	☐	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☒	☐	☐
e)	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?	☐	☒	☐	☐
f)	Otherwise substantially degrade water quality?	☐	☒	☐	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☒	☐
j)	Inundation by seiche, tsunami or mudflow?	☐	☐	☒	☐

4.9.1. Background Discussion

Calaveras County encompasses approximately 657,920 acres in central California along the western slope of the Sierra Nevada Mountain Range. The county is approximately 53 miles long from west to east and 20 miles wide from north to south. Elevations range from 300 feet above sea level in the rolling foothills of the western portion of the county, to 8,170 feet above sea level near the county's northeastern border. Deep ravines and steep ridges are found between the foothills and the higher mountains.

Calaveras County's climate lies in a transitional zone between the Sierra Nevada and the San Joaquin Valley. Climate varies significantly due to great differences in elevation. Temperatures in the higher country range from the low 20s to the middle 80s. The lower foothills range in temperature from the low 30s to the high 90s, exceeding 100 degrees at times during the summer months. Rainfall generally increases with altitude, and snow accounts for much of the precipitation in elevations above 3000 feet.

Waterways/Watersheds

The Mokelumne River, Calaveras River, and Stanislaus River are the major waterways in the County. These three waterways receive the majority of stormwater runoff from within the County

There are six major watersheds within the County. These include portions of the Upper and Lower Mokelumne River Watersheds (USGS Cataloguing Units 18040012 and 18040005), the Upper and Lower Calaveras River Watersheds (Units 18040011 and 18040004), and portions of the Upper and Lower Stanislaus Watersheds (Units 18040010 and 1804002).

Surface Water Impoundments

There are no naturally-occurring lakes of significant size within the county, although some smaller mountain lakes and ponds are located in the upper elevations of the Sierra Nevada Mountain Range. All significant surface water storage within Calaveras County is provided by several large-scale manmade reservoirs have been constructed along each of the County's three major rivers. These reservoirs provide storage capacity for flood control, water supply, and hydropower generation

Flooding

Four types of flood events can occur in Calaveras County: dam failure inundation, flash flood, riverine flooding, and urban flooding. Each are discussed below.

A dam failure inundation occurs as a result of structural dam failure that results in a large release of water from a reservoir that flows downstream and overtops the banks of rivers and/or creeks. The county's larger dams and reservoirs are located in the western portion of the county. Several smaller dams are found throughout the county; however, the dam inundation threats for these dams are less the larger dams in the western portion of the county. The areas with the greatest dam inundation threat are found downstream of the larger reservoirs in the county: Pardee, Camanche, New Hogan, New Melones, and Tulloch.

A flash flood is when a waterway rises very quickly, occurring suddenly, within a short time (from minutes to less than six hours), and usually is characterized by high flow velocities. Flash floods often result from intense rainfall over a small area, usually in areas of steep terrain.

Riverine flooding occurs when a river or stream flows over its banks and causes considerable inundation of nearby land and roads. Riverine flooding is a longer-term event that may last a week or more. Overbank flows along the Mokelumne and Stanislaus Rivers and portions of the Calaveras River system usually result from heavy snow melt combined with heavy rainfall.

Urban flooding occurs as land is converted from fields or woodlands to roads and parking lots and loses its ability to absorb rainfall.

Other types of floods include general rain floods, thunderstorm floods, snowmelt and rain on snow floods, and local drainage floods.

Based on flood risk evaluations prepared by FEMA, county flood hazards are a constraint to development in the areas immediately adjacent to Camanche Reservoir, New Hogan Lake, New Melones Reservoir, and the creeks and rivers found throughout the county. The remainder of the County has been determined to be located outside of the 500-year flood zone.

The Calaveras County Emergency Operations Plan identifies controlled releases from Spicer and Hunter Reservoirs, McKay's Dam, Hogan, Melones, and Tulloch Lakes, and rising water in the Mokelumne and Stanislaus Rivers, smaller year-round flowing creeks including the Angels, Murphys, Moran, and Cosgrove Creeks, and flash flood water from numerous seasonal creek beds are the county's primary flood control concerns.

Stormwater Runoff

Human activities have an effect on water quality when chemicals, salting of roads (to melt snow) heavy metals, hydrocarbons (auto emissions and car crank case oil), and other materials are transported with stormwater into drainage systems. Construction activities can increase sediment runoff, including concrete waste and other pollutants.

Calaveras County has developed a comprehensive program that includes "best management practices (BMPs)" designed to protect water quality and reduce the discharge of pollutants into the county's storm drain systems to the "maximum extent practicable." Top priority has been given to the implementation of measures necessary to control soil erosion and sediment discharges from construction sites in high-growth areas of the county. High priority has also been given to the implementation of requisite land use guidelines and design standards for new developments and redevelopment projects.

303(D)-Listed Impaired Water Bodies

Section 303(d) of the Federal Clean Water Act (CWA) requires the State Water Board to identify surface water bodies within California that do not meet established water quality standards. Once identified, the affected water body is included on the State Water Board's "303(d) Listing of Impaired Water Bodies" and a comprehensive program must then be developed to limit the amount of pollutant discharges into that water body. This program includes the establishment of "total maximum daily loads (or TMDLs)" for pollutant discharges into the designated water body. The 303(d) list approved by the US EPA identifies the Lower Stanislaus River as being impaired by Diazinon, Group A pesticides, and mercury. Group A pesticides include chlordane, toxaphene, heptachlor, endosulfan, and several other pesticides.

4.9.2. Responses to Checklist Questions

a) Would the project violate any water quality standards or waste discharge requirements?

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than significant with mitigation: Implementation of the Project would not violate any waste discharge requirements, substantially deplete groundwater supplies, or interfere with groundwater recharge such that there would be a net deficit in an aquifer volume. The construction phase of the Project could cause storm water runoff that could carry topsoil into downstream waterways and ultimately waters of the U.S.

As required by the Clean Water Act, each recommended project will require an approved Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices for grading, and preservation of topsoil. A SWPPP is not required if the project will disturb less than one acre. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

The lead agency that approves and implements a recommended project will submit the SWPPP with a Notice of Intent to the Regional Water Quality Control Board (RWQCB) to obtain a General Permit. The lead agency for recommended projects is not yet known, as funding, designs, and approvals have not been made. The lead agencies could include state or local agencies.

The RWQCB is an agency responsible for reviewing the SWPPP with the Notice of Intent, prior to issuance of a General Permit for the discharge of storm water during construction activities. The RWQCB accepts General Permit applications (with the SWPPP and Notice of Intent) after recommended projects have been approved by the lead agency. The lead agency for each project that is larger than one acre is required to obtain a General Permit for discharge of storm water during construction activities prior to commencing construction (per the Clean Water Act). As presented in a previous mitigation measure, the recommended project would be required to comply with NPDES General Construction Permit requirements to reduce or eliminate construction-related water quality effects. This measure requires the preparation, implementation, and maintenance of a SWPPP during construction. With NPDES compliance, and implementation of the following measures, the proposed project would have a ***less-than-significant*** impact.

Mitigation Measure 13:

Prior to construction, the implementing agency shall:

- Design new bridges or bridge replacement with adequate clearance, proper design, and debris walls, where needed, to reduce damage caused by tree logs and excessive debris accumulation.
- Develop and implement a spill prevention and control program to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during all construction activities.
- Comply with NPDES and Waste Discharge Requirements when dewatering is required.

After construction, the implementing agency shall:

- Implement source and treatment control measures that minimize the volume and rate of stormwater runoff discharge from the project site. General site design control measures incorporated into the project design can include:
    - conserving natural areas;
    - protecting slopes and channels;
    - minimizing impervious areas;
    - storm drain identification, and appropriate messaging and signing; and
    - minimizing effective imperviousness through the use of turf buffers and/or grass-lined channels, if feasible.
- Implement treatment control measures, if possible and when feasible, to remove pollutants from stormwater runoff prior to discharge to the storm drain system or receiving water. Treatment control measures may include, but not be limited to, the following:
    - Vegetated buffer strip
    - Vegetated swale
    - Extended detention basin
    - Wet pond
    - Constructed wetland
    - Detention basin/sand filter
    - Porous pavement detention
    - Porous landscape detention
    - Infiltration basin
    - Infiltration trench
    - Media filter
    - Retention/irrigation
    - Proprietary control device

  Selection and implementation of these measures would be based on a project-by-project basis depending on project size and stormwater treatment needs.

c) 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?

d) Otherwise substantially degrade water quality?

e) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

f) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Responses c), d), e), f):

Less than significant with mitigation: Implementation of the Project may alter the existing drainage pattern in specific areas, including the alteration of a course of a stream or river, which could result in erosion, siltation, or flooding on- or off-site. The recommended projects are not funded or approved at this point and no project specific plans are available. Each project would require a specific level of design review to ensure that the engineering does not result in substantial alterations in the natural drainage systems.

The U.S. Army Corps of Engineers (USACE) is responsible for issuing permits for the placement of fill, or discharge of material into, waters of the United States. These permits are required under Sections 401 and 404 of the Clean Water Act. Individual projects that involve instream construction, such as bridges, trigger the need for these permits and related environmental reviews by USACE. Subsequent environmental review, design review, and the Clean Water Act permitting requirements would ensure that the impacts are reduced to a reasonable level. Implementation of the following measure would ensure that the proposed project would have a ***less-than-significant*** impact.

Mitigation Measure 14:

Implementing agencies shall conduct project-level drainage studies. This study shall address the following topics:

- *A calculation of pre-development runoff conditions and post-development runoff scenarios using appropriate engineering methods. This analysis will evaluate potential changes to runoff through specific design criteria, and account for increased surface runoff.*
- *An assessment of existing drainage facilities within the project area, and an inventory of necessary upgrades, replacements, redesigns, and/or rehabilitation, including the sizing of on-site stormwater detention features and pump stations.*
- *A description of the proposed maintenance program for the onsite drainage system.*
- *Standards for drainage systems to be installed on a project/parcel-specific basis.*
- *Proposed design measures to ensure structures are not located within 100-year floodplain areas.*

Drainage systems will be designed in accordance with applicable flood control design criteria. As a performance standard, measures to be implemented from those studies will provide for no net increase in peak stormwater discharge relative to current conditions, ensure that 100-year flooding and its potential impacts are maintained at or below current levels, and that people and structures are not exposed to additional flood risk.

Mitigation Measure 15:

Avoid restriction of flood flows. Proposed projects requiring federal approval or funding will comply with Executive Order 11988 for floodplain management. Projects will avoid incompatible floodplain development designs, they will restore and preserve the natural and beneficial floodplain values, and they will maintain consistency with the standards and criteria of the National Flood Insurance Program. In addition, a Letter of Map Revision (LOMR) will be prepared and submitted to FEMA where unavoidable construction would occur within 100-year floodplains. The LOMR will include revised local base flood elevations for projects constructed within flood prone areas. Potential impacts due to flooding as a result of RTP projects are assumed to be alleviated through the FEMA LOMR approval process.

Mitigation Measure 22: *Avoid project dewatering. Project designs that require continual de-watering activities for the life of the projects will be avoided if possible. Due to the potential for flooding and destabilizing conditions, project implementing agencies should choose project designs that do not require continual dewatering, if suitable project alternatives exist. Project alternatives may include construction of overpasses, as opposed to below-grade underpasses, which would avoid interception with groundwater.*

g) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?

h) Inundation by seiche, tsunami or mudflow?

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?

j) Inundation by seiche, tsunami or mudflow?

Responses g), h), i), j):

Less than significant: The Project would not place housing within a 100-year flood hazard area, place structures which would impede or redirect flood flows within a 100-year flood hazard area, nor would it expose people or structures to a significant risk of loss, injury or death involving flooding (including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow). Therefore, implementation of the Project would have a **less-than-significant** impact on these environmental issues.

4.10. Land Use and Planning

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☒	☐	☐
b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

4.10.1. Background

Transportation and Land Use

The topography of the county varies with elevations ranging from approximately 300 feet above mean sea level in the western portion of the County to approximately 8,000 feet above mean sea level in the eastern portion of the County. The total area of Calaveras County is 1,036 square miles, of which 1,020 square miles are land (98 percent) and 16.8 square miles are water (2 percent). The only incorporated city in the County is the City of Angels Camp. Unincorporated communities include: Arnold, Avery, Copperopolis, Dorrington, Mokelumne Hill, Murphys, Rancho Calaveras, San Andreas, Vallecito, Valley Springs, and West Point. Table 12 provides 2000 and 2010 Census population numbers for these communities.

Table 4-9: Community Populations

Community	2010 Population	2000 Population	Land Area (square miles)
Arnold	3,843	4,218	14.8
Avery	646	672	4.5
Copperopolis	3.671	2,363	21.5
Dorrington	609	727	3.7
Mokelumne Hill	646	1,197	3.1
Mountain Ranch	1,628	1,557	41.2
Murphy's	2,213	2,061	10.3
Rancho Calaveras	5.325	4,182	8.5

Community	2010 Population	2000 Population	Land Area (square miles)
San Andreas	2,783	2,615	8.7
Vallecito	442	427	8.6
Valley Springs	3,553	2,560	9.8
West Point	674	746	3.7

Source: US Census 2000 and 2010.

The guiding principle in preparing the Land Use and Circulation Elements of the Calaveras County General Plan is to use the physical environment, including the transportation network, to guide future land use patterns that will develop as growth occurs. This principle is reinforced by the Project and the General Plan which recognizes that future development should occur in areas that will be easiest to develop, provide cost effective access to existing and planned infrastructure, and is consistent with stated goals and objectives of the Calaveras County Council of Governments, Calaveras County and City of Angels. This type of development pattern typically has lower public service costs, the least negative environmental effect, and will not displace or endanger the county's critical natural resources. The intended outcome of integrating transportation and land use is lower improvement costs and increased operational efficiency of the transportation system. This pattern, as discussed before, also aids in the reduction of VMT which has a direct effect on air quality and greenhouse gas (GHG) emissions.

Planned Development

The following development projects represent the types of residential and/or commercial development being considered throughout Calaveras County. Given the current economic conditions, it is likely that some delay or actual cancellation will occur during the life of the Project. No new development was assumed in the 2010 Base Land Use for the Travel Demand Model. Future forecasts will consider the proposed changes in land use unless new information is developed to the contrary.

- **Hogan Lake Estates North, Hogan Oaks I, and Hogan Oaks II –** The proposed developments would be located south of Valley Springs and include a total of 211 single-family dwelling units. It is not likely that the developments would be high transit generators.

- **Oak Canyon Ranch Specific Plan** – This 3,251-acre project would be located west of Copperopolis. The project would consist of 2,275 single-family dwelling units, 1,570 acres of recreation and open space, and a mixed-use village with residential, commercial, office, and resort amenities.

- **Tuscany Hills** – The Tuscany Hills project proposes to encompass 1,113 acres along the north shore of Lake Tulloch near the communities of Copperopolis and Copper Cove. The project would include 335 single-family dwelling units, open and recreational space, an 18-hole golf course, boat marina, and lakefront recreational uses. It is not anticipated that this project would be a high transit generator.

- **Copper Mill** – Two development scenarios are proposed for this project – Maximum Commercial and Maximum Residential. The commercial scenario would build 193,477 square feet of commercial space and 39 residential units on 27.4-acreas. The residential scenario proposes 61,654 square feet of commercial space and 69 residential units. The project site is located at an existing "T" intersection of Little John Road, Reed's Turnpike, and the extension of Little John Road access to State Route 4.

4.10.2. Responses to Checklist Questions

a) Physically divide an established community?

Less than significant with mitigation: The majority of projects recommended by the Project would involve transportation system improvements to existing facilities, which would mostly occur within or in close proximity to existing rights-of-way. Some recommended projects will involve new facilities that will occur within or adjacent to existing communities. In many cases, improvements to facilities will occur where communities are already physically divided by existing facilities, including highways, roadways, and intersections. The Project is intended to improve intra-county connectivity and new or improved land use linkages. However, recommended projects have the potential to divide existing contiguous land uses. Because these potential improvement projects could occur within the developed areas, communities could be affected.

Because the Project is a planning document and thus, no physical changes will occur to the environment, adoption of the Project would not directly impact the environment. It is assumed that recommended projects that affect roads and interchanges present the greatest potential for impacts regarding the division of an established community. The following mitigation measure would ensure that all recommended projects are designed to maintain the cohesiveness of the existing communities to the greatest extent feasible. Where full design mitigation is not feasible, measures would be incorporated into the design to minimize the impacts associated with project implementation. Adherence to the requirements of this mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 16:

> *Prior to approval of recommended projects, the implementing agency shall consult with local land use planning staff to get a more detailed project-level analysis of land uses, zoning, and General Plan policies relative to the project. The analysis should consider new road widths and specific project locations in relation to existing roads. If it is determined that a project could physically divide a community, or conflict with zoning or General Plan policies, the implementing agency shall redesign the project to the extent feasible.*

b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant: Each of the jurisdictions in Calaveras County has an adopted General Plan to guide land use and development decisions, including circulation patterns and improvements. The Project will respond to growth anticipated in adopted general plans, as well as address safety and rehabilitation issues necessary to maintain the existing transportation system. The Project will also enhance mobility primarily within established communities, and provide connectivity between established communities.

The Project would be generally compatible with existing land uses and policies; however, specific recommended projects, such as improvements to existing transportation corridors could conflict with County and City land use policies and designations by encroaching on incompatible land uses. Each recommended project will be evaluated by the implementing agency on a project-specific level during the design and engineering stage of the process. Each project will be reviewed for conformance with the

general plan of the jurisdiction(s) in which the project will be located, as well as conformance with the policies recommended by the Project.

The Project is intended to accommodate growth envisioned by the General Plans by providing multimodal circulation infrastructure necessary for orderly growth. The Project includes policies that ensure consistency with local plans and regulations and a conformance review of recommended projects will ensure consistency with adopted policies and regulations. The Project would not result in significant conflicts with plans, policies, and regulations adopted to mitigate an environmental effect. Implementation of the Project would have a ***less than significant*** impact relative to this issue.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No impact: Calaveras County does not have an applicable habitat conservation plan or natural community conservation plan. Implementation of the Project would have ***no impact*** relative to this issue.

4.11. Mineral Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

4.11.1. Background Discussion

Mineral Resource Classification

Pursuant to the Surface Mining and Reclamation Act of 1975 (SMARA), the California State Mining and Geology Board oversees the Mineral Resource Zone (MRZ) classification system. The MRZ system characterizes both the location and known/presumed economic value of underlying mineral resources. The mineral resource classification system uses four main MRZs based on the degree of available geologic information, the likelihood of significant mineral resource occurrence, and the known or inferred quantity of significant mineral resources. The four classifications are described in Table 13 below.

Table 4-10: Mineral Resource Classification System

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

Source: California Department of Conservation Division of Mines and Geology, 2000.

Mineral Resources

Calaveras County has a long history of mining activity and continues today to host several mineral extraction operations in addition to reclamation of former mining operations. Calaveras County is rich with mineral resources due to its location within the Sierra Nevada foothills and the Mother Lode belt. Below is a brief discussion of known mineral resources in the county.

Asbestos and Chromite. Asbestos and chromite reserves are located in three general areas. Small reserves of asbestos and chromite are thought to exist north of City of Angels Camp, east of SR 49. Additional small reserves are known northwest of San Andreas, near Valley Springs. Former asbestos mining activities located approximately five miles southeast of Copperopolis is now being utilized to accept asbestos-containing waste and waste tires.

Gold. Deposits of gold-bearing rock are distributed over most of Calaveras County. The history of gold in the region suggests that significant reserves may exist. CDMG information suggests that reserves of lode gold exist in the Royal Mountain King Mine area just north of Copperopolis and the Carson Hill mine located south-southeast of City of Angels Camp.

Potential placer gold deposits exist throughout the county. Placer gold occurs primarily in river deposits; consequently, most major drainages will have potential for such deposits. In particular, the Mokelumne River drainage in the northwestern part of the county and the drainages east of City of Angels Camp are believed to contain placer gold deposits. Finally, several placer gold deposits are thought to exist in the eastern portion of the county; however, the significance of such deposits is not clear.

CDMG information points out that remnants of ancient river channels that have been covered by volcanic or other geologic occurrences may contain significant placer gold deposits. Although many such areas have been prospected in the past, so-called "auriferous gravels" remain a potential source of economically viable placer gold.

Limestone. Significant reserves of limestone have been classified in the Kentucky House, Calaveritas, and Cave City deposits, located south of San Andreas. In addition, small limestone deposits have been identified generally east-southeast of San Andreas. Additional limestone deposits lie both west and south of Murphys, near the Tuolumne County border. Some of the potential limestone deposits also have the potential for talc and silica deposits as well.

Sand and Gravel. The primary sand and gravel deposits lie in the northwestern portion of Calaveras County, generally west of Valley Springs. There are three potentially active sand and gravel mines, one is located generally south of Valley Springs, one is located northeast of Valley Springs, and a third is located south of Murphys.

Mining Operations

The Office of Mine Reclamation periodically publishes a list of mines regulated under SMARA that is generally referred to as the AB 3098 List. The Public Contract Code precludes mining operations that are not on the AB 3098 List from selling sand, gravel, aggregates or other mined materials to state or local agencies. As of May 17, 2012, there are 11 mines on the AB 3098 list in Calaveras County. Table 14 identifies the active mines located in the county.

Table 4-11: AB 3098 List – Active Mines in Calaveras County

Mine ID	Mine Name	Mine Operator
91-05-0001	SNYDER CLAY PIT	SNYDER CLAY PIT
91-05-0005	JOHN HERTZIG SAND & GRAVEL	JOHN W. HERTZIG
91-05-0006	ROBIE RANCH GRAVEL	7/11 MATERIALS, INC.
91-05-0008	VALLEY SPRINGS CLAY PIT	VALLEY SPRINGS CLAY PIT, LLC

Mine ID	Mine Name	Mine Operator
91-05-0009	GNM #6 SHALE QUARRY	LEHIGH SOUTHWEST CEMENT COMPANY
91-05-0010	QUARRY # 7	LEHIGH SOUTHWEST CEMENT COMPANY
91-05-0012	CATARACT LIMESTONE QUARRY	LEHIGH SOUTHWEST CEMENT COMPANY
91-05-0013	WOLIN & SONS AGGREGATE	CHARLES LARSON CONSTRUCTION
91-05-0014	HOGAN QUARRY	FORD CONSTRUCTION COMPANY, INC.
91-05-0016	MCCARTY PIT	FORD CONSTRUCTION COMPANY, INC
91-05-0018	*CARSON HILL ROCK PRODUCTS*	CARSON HILL ROCK PRODUCTS

Source: California Department of Conservation Division of Mines and Geology, 2012.

Mineral Regulations and Programs

The California Surface Mining and Reclamation Act (SMARA). The California Surface Mining and Reclamation Act (SMARA of 1975 requires classification of land into Mineral Resources Zones (MRZs), according to the known or inferred mineral potential of that area. SMARA is set forth in the California Public Resources Code (PRC), Division 2, Chapter 9, Sections 2710, et seq.

The State requires each County to implement SMARA policies. These policies apply to the surface mining operations as well as specific measures to be employed in grading, backfilling, resoiling, revegetation, soil compaction, soil erosion control, water quality and watershed control, waste disposal, and flood control.

State policies do not include aspects of regulating surface mining operations that are solely of local concern, and not of statewide or regional concern, such as hours of operation, noise, dust, fencing, and aesthetics. These factors are normally administered and regulated by the local lead agency. The Calaveras County serves as the local lead agency for regulating mining activities pursuant to SMARA.

4.11.2. Responses to Checklist Questions

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less than significant: Some projects recommended by the Project are located in the vicinity of land that that contains mineral resource. Implementation of the recommended projects would not cause changes resulting in conversion of any mining operations into a different use. Additionally, the projects will improve transportation systems in the county, which would provide a beneficial impact for mining operations. Implementation of the proposed project will have a ***less than significant*** impact on mineral resources.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less than significant: There are currently 11 mining operations in Calaveras County according to the May 2012 AB 3098 list. The Project will not result in the loss of availability of any of these operational sites. Implementation of the proposed project will have a ***less than significant*** impact on mineral resource site.

4.12. Noise

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.12.1. Background

The most common noise sources in the county are motor vehicles, including: automobiles, trucks, buses, and motorcycles. The noise generated from vehicles within the county is governed primarily by the number of vehicles, type of vehicles (mix of automobiles, trucks, and other large vehicles), and their speed. The highest noise levels are adjacent to larger and more heavily traveled roadways including Highways 4, 12, 49, and 26. Noise levels that would affect noise sensitive land uses such as residences, schools, and hospitals also occur along major arterials.

Traffic Noise

Traffic noise level contours for traffic conditions and distances from the center of the roadways to the respective contours were computed for Calaveras County in 2008 as part of the General Plan Update

process using the Federal Highway Administration Traffic (FHWA) Noise Prediction Model (FHWA-RD-77-108) and are depicted below in Table 15. The model uses compute Leq values, which are converted into CNEL using guidance from the FHWA.

Table 4-12: Traffic Noise Contour Distance (feet) from Roadway Centerline

Roadway	70 Ldn	65 Ldn	60 Ldn	Roadway	70 Ldn	65 Ldn	60 Ldn
Pool Station Rd	4	12	37	Olive Orchard Rd	4	13	42
Gold Strike Rd	4	11	36	Warren Rd	1	3	9
Rail Road Flat Rd	6	19	61	Evergreen Rd	1	3	8
Ridge Rd	3	10	31	Southworth Rd	1	5	15
Jesus Maria Road	2	6	18	Church Hill Rd	5	15	48
Murphy's Grade Rd	21	65	207	Big Trees Rd	18	57	182
Sheep Ranch Rd	2	7	21	Blagen Rd	11	35	109
Parrotts Ferry Rd	8	27	84	Vista del Lago	13	41	128
O'Byrnes Ferry Rd	14	39	124	Hartvickson lane	8	24	77
Milton Rd	5	14	45	Silver Rapids Rd	3	11	35
Jenny Lind Rd	2	5	17	Pine St	2	6	18
Burson Rd	2	7	22	Scott St	6	18	57
Camanche Pkwy S	2	8	24	Meadow Dr	6	18	58
Paloma Rd	4	12	38	Sierra Pkwy	1	2	5
Baldwin Rd	7	23	73	Chesnut St	4	12	39
Avery Sheep Ranch Rd	1	2	8	Daphne St	27	85	269
Caleveritas Rd	1	3	10	Reeds Turnpike	8	25	80
Fourth Crossing rd	10	31	98	Russells Rd	2	5	15
Hogan Dam Rd	5	15	47	Broadway St	4	12	38
Campo Seco Rd	0	1	4	Lewis Ave	5	14	45
Watertown Rd	2	8	24	Pope St	5	17	55
Double Springs Rd	1	2	6	Roberts Ave	2	5	17
South Petersburg Rd	1	5	15	Treat Ave	9	28	89
Messing Rd	1	4	12	Main Street West Point	5	17	53
Pettinger Rd	3	11	34	Main Street Mokelumne Hill	8	26	82
Lime Creek Rd	1	2	6	Lafayette St	1	2	6
Michel Rd	4	14	44	Manuel St	24	75	237
Whiskey Slide Rd	2	5	17	Lilac Dr	1	2	8
East Murray Creek Rd	0	1	5	Pine Dr	3	9	29
Swiss Ranch Rd	0	1	3	Country Club Dr	2	7	24
Associated Office Rd	1	4	13	Country Club Dr	4	14	45
Blue Mountain Rd	4	12	37	Church St	4	12	38
Bald Mountain Rd	2	5	17	Algiers St	2	6	18
Independence Rd	1	3	10	Mitchler Ave	2	5	16
Rolleri Bypass rd	2	6	20	Meadowmont Way	5	15	47
French Gulch Rd	3	8	25	Copper Cove	8	26	81

Roadway	70 Ldn	65 Ldn	60 Ldn	Roadway	70 Ldn	65 Ldn	60 Ldn
Six Mile Rd	2	5	17	Little John Rd	8	26	83
Armstrong Rd	1	2	6	Main St San Andreas	5	17	54
Red Hill Access Rd	1	4	14	Mountain Ranch Rd	11	33	105
Pennsylvania Gulch Rd	5	15	47	Main Street Vallecito	19	61	194
Skunk Ranch Rd	2	7	21	Angels Rd	4	14	43
San Domingo Rd	0	1	3	Moran Rd	28	87	276
Dogtown Rd	2	5	15	Avery Hotel Rd	4	13	41
Old Gulch Rd	1	2	6	Dunbar Rd	4	12	37
Hawver Rd	2	5	17	Boards Crossing	3	11	34
Gregory Rd	0	1	3	Court St	6	18	58

Source: Calaveras County, 2008.

Airport Noise

The greatest potential for noise intrusion occurs when aircraft land, take off, or run their engines while on the ground. There are three primary sources of noise in a jet engine: the exhaust, the turbomachinery, and the fan. The noise associated with general aviation propeller aircraft (piston and turbo-prop) is produced primarily by the propellers and secondarily from the engine and exhaust.

Aircraft noise affecting a county is generated by aircraft operations at the Calaveras County Airport (Maury Rasmussen Field). The airport is a public general aviation airport located four miles southeast of the central business district of San Andreas. The airport covers an area of 93 acres and contains one runway (13/31) that is 3,603 feet in length, 60 feet wide, and has two helipads (65 feet by 65 feet). There are currently 53 fixed base aircraft at the airport and an estimated 32,000 annual operations (87 per day).

Construction

Activities associated with construction represent an additional source of intermittent noise at sites located throughout the county. The construction equipment often generates high levels of noise at these sites; however, this noise is usually short-term. The construction-related noise is often variable and fluctuates depending on the phase of construction, the type of equipment used, the length of use, and the distance of the noise source and the receptor. Typical noise levels of construction equipment are shown in Table 16.

Table 4-13: Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source		Distance to Noise Contours (feet, dBA Leq)		
	Lmax	Leq	70 dBA	65 dBA	60 dBA
Air Compressor	80	76	105	187	334
Auger/Rock Drill	85	78	133	236	420
Backhoe/Front End Loader	80	76	105	187	334
Blasting	94	74	83	149	265
Boring Hydraulic Jack/Power Unit	80	77	118	210	374
Compactor (Ground)	80	73	74	133	236
Concrete Batch Plant	83	75	94	167	297

Equipment	Typical Noise Level (dBA) 50 feet from Source		Distance to Noise Contours (feet, dBA Leq)		
	Lmax	Leq	70 dBA	65 dBA	60 dBA
Concrete Mixer Truck	85	81	187	334	594
Concrete Mixer (Vibratory)	80	73	74	133	236
Concrete Pump Truck	82	75	94	167	297
Concrete Saw	90	83	236	420	748
Crane	85	77	118	210	374
Dozer/Grader/Excavator/Scraper	85	81	187	334	594
Drill Rig Truck	84	77	118	210	374
Generator	82	79	149	265	472
Gradall	85	81	187	334	594
Hydraulic Break Ram	90	80	167	297	529
Jack Hammer	85	78	133	236	420
Impact Hammer/Hoe Ram (Mounted)	90	83	236	420	748
Pavement Scarifier/Roller	85	78	133	236	420
Paver	85	82	210	374	667
Pile Driver (Impact/Vibratory)	95	88	420	748	1,330
Pneumatic Tools	85	82	210	374	667
Pumps	77	74	83	149	265
Truck (Dump/Flat Bed)	84	80	167	297	529

Sources: FHWA 2006

Groundborne Vibration

There are no federal, state, or local regulatory standards for ground-borne vibration. However, various criteria have been established to assist in the evaluation of vibration impacts. However, both the Federal Transit Administration and the California Department of Transportation (Caltrans) have developed vibration criteria based on potential structural damage risks and human annoyance. These criteria differentiate between transient and continuous/frequent vibration sources. Transient sources of ground-borne vibration include intermittent events, such as blasting; whereas, continuous and frequent events would include the operations of equipment, including construction equipment, and vehicle traffic on roadways (Caltrans 2002(b), 2004).

The ground-borne vibration criteria often used for evaluation of potential structural damage are based on building classifications, which take into account the age and condition of the building. For instance, for residential structures and newer buildings, Caltrans considers a minimum peak-particle velocity (ppv) threshold of 0.25 inches per second (in/sec) for transient sources and 0.04 in/sec for continuous/frequent sources to be sufficient to protect against building damage. Continuous ground-borne vibration levels below approximately 0.02 in/sec ppv are unlikely to cause damage to any structure. In terms of human annoyance, continuous vibrations in excess of 0.04 in/sec ppv and transient sources in excess of 0.25 in/sec ppv are identified by Caltrans as the minimum perceptible level for ground vibration. Short periods of ground vibration in excess of 2.0 in/sec ppv can be expected to result in severe annoyance to people. Short

periods of ground vibration in excess of 0.1 in/sec ppv (0.2 in/sec ppv within buildings) can be expected to result in increased levels of annoyance (Caltrans 2002[b], 2004).

4.12.2. Responses to Checklist Questions

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Responses a, c-d):

Traffic Noise: The Project does not directly cause a noise impact, although it could indirectly have noise impacts as a result of development and operation of individual improvements during both the short and long-term. While many of these projects will likely have no effect on the operational noise generation of the facility, some recommended projects could affect noise-sensitive land uses. Noise-sensitive land uses could be exposed to noise in excess of normally acceptable noise levels or increases in noise as a result of the operation of expanded or new transportation facilities.

Calaveras County and the City of Angels have adopted Noise Elements of their General Plans that establish noise-related policies that, when implemented, protect sensitive receptors from significant noise. The policies that are laid out in the Noise Element(s) are consistent with federal and state regulations designed to protect noise sensitive receptors. During the project design process, the implementing agency would be responsible for ensuring that the project is designed consistent with adopted policies and state and federal regulations. Although the policy and regulatory controls for noise-related impacts are in place in the planning area, subsequent improvement projects could result in an increase in traffic noise levels. For most projects, consistency with the adopted policies and established regulations would help to reduce exposure of sensitive receptors to transportation noise levels. In addition, the following mitigation measure would require a project-level noise evaluation for each recommended project that is located near a sensitive receptor. The noise evaluation would identify areas that would have elevated noise levels as a result of the project and require measures to attenuate the noise to an acceptable level. Such measures could include constructing earth berms, sound walls, establishing buffers, or improving acoustical insulation in residential units. Implementation of this mitigation measure would reduce this impact to a **less-than-significant** level.

Mitigation Measures 17:

Prior to approval of projects recommended by the Project, the implementing agency shall perform a project-level noise evaluation. For projects adjacent to noise-sensitive uses, implementing agencies shall consider the following measures:

- *Construct vegetative earth berms with mature trees and landscaping to attenuate roadway noise on adjacent residences or other sensitive use, and /or sound walls or other similar sound-attenuating buffers, as appropriate.*

- *Properly zone, buffer, and restrict development to ensure that future development is compatible with transportation facilities.*
- *Design projects to maximize the distance between noise-sensitive land uses and new roadway lanes, roadways, rail lines, transit centers, park-and-ride lots, and other new noise generating facilities.*
- *Improve the acoustical insulation of residential units where setbacks and sound barriers do not sufficiently reduce noise.*
- *Establish speed limits and limits on hours of operation of rail and transit systems.*

Construction Noise: Noise levels typically associated with roadway construction equipment and distances to predicted noise contours are discussed in the background above. As indicated, maximum intermittent noise levels associated with construction equipment typically range from approximately 77 to 95 dBA L_{max} at 50 feet. Pile driving and demolition activities involving the use of pavement breakers and jackhammers, and are among the noisiest of activities associated with transportation improvement and construction projects. Depending on equipment usage and duration, average-hourly noise levels at this same distance typically range from approximately 73 to 88 dBA L_{eq}. Distances to predicted noise contours would, likewise, vary depending on the specific activities conducted and equipment usage. Delivery vehicles, construction employee vehicle trips, and haul truck trips may also contribute to overall construction noise levels.

Increases in ambient noise levels associated with construction projects located near sensitive land uses can result in increased levels of annoyance, as well as potential violation of local noise standards. Construction activities occurring during the more noise-sensitive nighttime hours would be of particular concern, given the potential for increased sleep disruption. Impacts to sensitive receptors resulting from proposed transportation improvement and construction projects would depend on several factors, such as the equipment used, surrounding land uses, shielding provided by intervening structures and terrain, and duration of construction activities.

The following mitigation measure would limit construction to the daytime hours, to the extent feasible, and would require equipment to be properly maintained and muffled. Furthermore, this mitigation measure provides resident notification requirements, and measures to resolve noise complaints. Implementation of this mitigation measure would reduce this impact to a **less-than-significant** level.

Mitigation Measure 18:

Projects recommended by the Project, shall be designed and implemented to reduce adverse construction noise and vibration impacts to sensitive receptors, as feasible. Measures to reduce noise and vibration effects may include, but are not limited to:

- *Limit noise-generating construction activities, excluding those that would result in a safety concern to workers or the public, to the least noise-sensitive daytime hours, which is generally 6am to 9pm.*
- *Construction of temporary sound barriers to shield noise-sensitive land uses.*
- *Location of noise-generating stationary equipment (e.g., power generators, compressors, etc.) at the furthest practical distance from nearby noise-sensitive land uses.*
- *Phase demolition, earth-moving and ground-impacting operations so as not to occur in the same time period.*
- *Use of equipment noise-reduction devices (e.g., mufflers, intake silencers, and engine shrouds) in accordance with manufacturers' recommendations.*

- *Substituting noise/vibration-generating equipment with equipment or procedures that would generate lower levels of noise/vibration. For instance, in comparison to impact piles, drilled piles or the use of a sonic or vibratory pile driver are preferred alternatives where geological conditions would permit their use.*
- *Other specific measures as they are deemed appropriate by the implementing agency to maintain consistency with adopted policies and regulations regarding noise.*
- *Comply with all local noise control and noise rules, regulations, and ordinances.*

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Responses b): Groundborne vibration and noise levels associated with highway traffic is typically considered to pose no threat to buildings and potential annoyance to people would be minimal. Traffic vibration levels are typically highest associated with truck passbys. Automobile traffic normally generates vibration peaks of one-fifth to one-tenth that of trucks. Based on measurements conducted by Caltrans, even the highest truck generated vibrations, which were measured at approximately 16 feet from the centerline of the near travel-lane, were not found to exceed 0.08 in/sec. This level coincides with the maximum recommended "safe level" for ruins and historical structures (Caltrans 2002(b), 2004).

Construction activities would, however, require the use of off-road equipment, which could adversely affect nearby land uses. Groundborne vibration levels commonly associated with construction equipment typically associated with transportation projects are summarized in the background discussion above. As indicated, the highest groundborne vibration levels would be generated by the use of pile drivers and vibratory rollers. Groundborne vibration levels associated with proposed construction improvement projects could potentially exceed recommended criteria for structural damage and/or human annoyance (0.2 and 0.1 in/sec ppv, respectively) at nearby existing land uses.

Mitigation Measure 31 would limit construction to the daytime hours, to the extent feasible, and would require use of equipment with reduced equipment noise/vibration levels, to the extent practical. The level of mitigation would be project and site specific and would include measures normally required by Caltrans, as well as requirements under the General Plan Noise Elements and Noise Ordinances of the applicable jurisdictions. Implementation of this mitigation measure would reduce this impact to a ***less-than-significant*** level.

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

Responses e): The Project consists primarily of the construction of bikeways and pedestrian facilities and associated programs. People using these facilities and programs would not be exposed to noise levels that exceed the existing acceptable levels in airport areas. Implementation of the proposed project would have a ***no impact*** relative to this issue.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Responses f): The Project is not within the vicinity of a private airstrip. There is **no impact** anticipated with noise from private airstrips.

4.13. Population and Housing

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

4.13.1. Background

The following information provides the most recent demographic profile of Calaveras County and the City of Angels. Information was taken from the 2010 Census, Calaveras County Profile (Visitors Bureau 2009), and Department of Finance (2010).

Populations

In 2010 the California Department of Finance (DOF) reported the County population at 45,642, which represents a 1.4 percent per year growth rate since 2000. Table 17 provides population numbers for Calaveras and adjacent Counties from 2000 to 2010 based on DOF estimates for each year. Table 4 shows relatively slow growth in Calaveras and Stanislaus counties since 2000. Alpine, Amador and Tuolumne have shown less than one percent growth during the same 10-year period.

Table 4-14: Historical Population Trends in Calaveras and Adjacent Counties

County	2010	2009	2008	2007	2006	2005	2004	2000	Annual Average
Calaveras	**45,642**	**45,562**	**45,702**	**45,638**	**45,316**	**44,773**	**43,924**	**40,658**	**1.4%**
Alpine	1,176	1,180	1,208	1,248	1,255	1,208	1,266	1,203	-0.2%
Amador	38,117	37,905	37,864	38,085	37,964	37,722	37,147	35,205	0.9%
Stanislaus	515,954	512,052	510,396	508,372	503,548	498,020	490,283	449,767	1.6%
Tuolumne	55,324	55,258	56,060	56,133	56,558	56,452	56,369	54,587	0.2%

Source: California Department of Finance (DOF) Report E-1 County Population Trends

Population Growth Forecasts

The DOF projects that the population of Calaveras County will grow approximately 18 percent between 2010 and 2020, and approximately 15 percent between 2020 and 2030. Extending the growth projection to the year 2035 shows a countywide population estimate of approximately 64,572. The senior population is expected to grow even faster during these periods. The DOF data shows a 40 percent and 24 percent growth respectively for persons over 65 years of age during the same 10-year periods.

Employment

The California State Employment Development Department (EDD) produces employment data based on survey information of the number of individuals living and working in the County during a given year. The latest information for Calaveras County reports the number of employed persons was 16,780 in March 2012. Table 18 provides a 3.5 year summary of the total labor force, number employed and unemployed, and the unemployment rate for the County since 2008. The data shows a steady decline in employment and a rise in the unemployment rate since the economic downturn beginning in 2008. Between August 2011 and March 2012 the unemployment rate fell to 14.8 percent. This is a positive trend given the recent downturn in the economy.

Table 4-15: Calaveras County Employment

Year	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
August – March 2012	19,960	16,780	2,910	14.8%
January – July 2011	19,580	16,360	3,220	16.4%
Annual 2010	20,090	16,960	3,130	15.6%
Annual 2009	20,350	17,510	2,830	13.9%
Annual 2008	20,640	18,860	1,770	8.6%

Source: California Employment Development Department (EDD) 2010

The EDD also lists the fastest growing occupations in Calaveras County, which include teachers, computer analysts, mental health counselors, fitness trainers, and veterinary assistants. The number of employees is indicated where information is available.

Employment Projections

According to the EDD, between 2008 and 2018, total employment in the "Mother Lode Region" (Amador, Calaveras, Mariposa, and Tuolumne counties) is projected to increase by 2,000 workers or four percent to a total of 53,200 workers. To distribute this projected growth to Calaveras County over the next 10 years the data shows that Calaveras County had approximately 40 percent of the total MLR employment (20,640 of 51,130 workers) in 2008. If this ratio (40 percent) is maintained through 2018, the County will experience an increase of approximately 800 additional workers (40 percent of 2,000). The largest additions to employment through 2018 are projected in the transportation sector, professional and business sector, education and health care sector, and local government.

Housing

In 2009, the US Census Bureau reported a total of 27,438 housing units in Calaveras County. The homeownership rate between 2005 and 2009 was reported at approximately 80 percent. Housing units in

multi-unit structures totaled approximately 3.7 percent or 1,015 units. The occupancy rate for homes was 2.55 persons and the number of residential building permits issued in 2009 was reported at 58.

Planned Development

The following development projects represent the types of residential and/or commercial development being considered throughout Calaveras County. Given the current economic conditions, it is likely that some delay or actual cancellation will occur.

- **Hogan Lake Estates North, Hogan Oaks I, and Hogan Oaks II –** The proposed developments would be located south of Valley Springs and include a total of 211 single-family dwelling units. It is not likely that the developments would be high transit generators.

- **Oak Canyon Ranch Specific Plan** – This 3,251-acre project would be located west of Copperopolis. The project would consist of 2,275 single-family dwelling units, 1,570 acres of recreation and open space, and a mixed-use village with residential, commercial, office, and resort amenities.

- **Tuscany Hills** – The Tuscany Hills project proposes to encompass 1,113 acres along the north shore of Lake Tulloch near the communities of Copperopolis and Copper Cove. The project would include 335 single-family dwelling units, open and recreational space, an 18-hole golf course, boat marina, and lakefront recreational uses. It is not anticipated that this project would be a high transit generator.

- **Copper Mill** – Two development scenarios are proposed for this project – Maximum Commercial and Maximum Residential. The commercial scenario would build 193,477 square feet of commercial space and 39 residential units on 27.4-acreas. The residential scenario proposes 61,654 square feet of commercial space and 69 residential units. The project site is located at an existing "T" intersection of Little John Road, Reed's Turnpike, and the extension of Little John Road access to State Route 4.

4.13.2. Responses to Checklist Questions

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

Less than significant: Given the historical and current population, housing, and employment trends, growth in the region is inevitable; however, the rate of growth is considered low compared to the larger metropolitan areas of the Central Valley (i.e. Stockton and Sacramento). Two principal factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population compared to 10 births per 1,000 population in West Virginia, the state with the lowest projected birth rate. Additionally, California is expected to attract more than one third of the country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and also, transportation.

The Project has been planned to accommodate anticipated levels of growth, including growth associated with adopted general plans. The Project does not involve approvals associated with any development projects, and does not provide infrastructure that could facilitate additional development in the region. The Project does not induce growth beyond the growth that is planned or being planned by local jurisdictions both locally and regionally.

The Calaveras Council of Governments does not make land use approvals associated with this growth, nor do they have the authority to make local land use decisions. Implementation of the Project will have a ***less than significant*** impact on this issue.

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

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less than significant: The Project would not, in and of itself, displace substantial numbers of housing units or people. The majority of recommended projects involve work within or adjacent to existing rights-of-way and would not involve acquisition of land and displacement of substantial numbers of persons or housing. This is true of most roadway projects, and modifications to intersections. These transportation projects will generally not require the displacement of any residences or businesses since the right-of-way has already been acquired.

Some of the recommended projects may involve land acquisition. While most of the additional right-of-way acquisition is anticipated to be vacant or undeveloped land, at a few isolated locations the land necessary for the improvement may include existing residential units or businesses. This is anticipated to be rare and involve a limited number of residences or businesses.

State and federal law require due compensation for property taken to carry out the infrastructure projects. Also required by law, relocation and assistance must be provided to displaced residents and businesses in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 and the State of California Relocation Assistance Act.

As noted above, recommended projects would not result in displacement or relocation of a substantial number of homes, businesses, or people. Growth planned in the general plans would result in additional housing opportunities and would more than offset any units removed in association with recommended projects. Therefore, impacts related to a substantial displacement of housing units or persons as a result of the Project are ***less than significant***.

4.14. Public Services

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 following public services:

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a)	Fire protection?	☐	☐	☒	☐
b)	Police protection?	☐	☐	☒	☐
c)	Schools?	☐	☐	☒	☐
d)	Parks?	☐	☐	☒	☐
e)	Other public facilities?	☐	☐	☒	☐

4.14.1. Background Discussion

Fire Protection

Calaveras County is divided into 11 different fire districts, including: Mokelumne Hill Fire Protection District, Murphys Fire Protection District, Copperopolis Fire Protection District, West Point Fire Protection District, Jenny Lind Fire District, Ebbetts Pass Fire District, San Andreas Fire Protection District, Foothill Fire Protection District, Altaville-Melones Fire Protection District, Central Calaveras Fire & Rescue Protection District, and the Angels Camp Fire District. In addition to the county districts, the California Department of Forestry and Fire Protection (CDF, also referred to as Cal Fire) serves the county. Fire response facilities in the County are as follows:

- Fire Department: These facilities are operated by local town/community Fire Protection Districts.
- Forest Fire Station: These facilities are operated primarily by the CDF and include Hermit Springs Forest Fire Station, West Point Forest Fire Station, Esperanza Forest Fire Station, Arnold Forest Fire Station, Valley Springs Forest Fire Station, Murphys Forest Fire Station, Altaville Forest Fire Station and Copperopolis Forest Fire Station.
- Look Out: These facilities are operated by the CDF and include the Blue Mountain Look Out in Arnold, the Sierra Vista Look Out in San Andreas, and the Fowler Peak Look Out in City of Angels Camp.
- CDF Regional Unit HQ: The Tuolumne-Calaveras Regional Unit HQ is the only facility in this category. This facility is located in San Andreas and is operated by the CDF.
- US Forest Service: Two U.S. Forest Service facilities are located in the county. They are Stanislaus National Forest Dorrington Fire Station, and Stanislaus National Forest Calaveras District Station. Both of these facilities are operated by the United States Forest Service.

Police Protection

Sheriff's Department. The Calaveras County Sheriff's Department acts provides law enforcement to approximately 95 percent of the county. The Sheriff's Department consists of the main sheriff's office and County Jail located in San Andreas at the Government Center, as well as five substations: Valley Springs Substation with two patrol beats, Copperopolis Substation with one patrol beat, West Point Substation with one patrol beat, Arnold Substation with one patrol beat, and Mokelumne Hill Substation with one patrol beat.

The Sheriff's Department runs the Office of Emergency Services (OES), the Marine Safety Hazardous Materials, and the Explosives Ordinance Disposal (EOD) Unit, all located at the County Airport. The County Bomb/Haz Mat and EOD team provides services for four counties: Calaveras, Amador, Tuolumne, and Alpine. The Investigation Division Office is also overseen by the Sheriff's Department and is located at separate offices in San Andreas.

City of Angels Police Department. The City of Angels maintains a police department consisting of 14 sworn officers, including nine fulltime, two part-time and five volunteer reserve officers. Sworn officers include the Chief of Police, two patrol sergeants, four patrol officers, one juvenile officer, one detective, two volunteer and three part-time officers. One civilian employee serves as administrative staff and day shift dispatcher and there are two part-time dispatchers, as needed. The police department is located at 200 Monte Verda Street and totals 3,000 square feet.

California Highway Patrol. The California Highway Patrol (CHP) provides law enforcement services, primarily traffic enforcement, on highways and roadways within the county. These services include traffic control, accident investigation, and licensing of vehicles. The CHP maintains an office in San Andreas.

Schools

Schools within the Calaveras County Office of Education jurisdiction are divided into four school districts: Calaveras Unified School District, Bret Harte Union High School District, Mark Twain Union Elementary District, and Vallecito Union Elementary District. Additionally, the County Office of Education coordinates operation of the county's community schools.

Parks

There is little recreation in the form of local parks in the region, and the County does not directly maintain a system of park and recreation facilities. The County owns Murphys Park, located in the town of Murphys. Ownership of other publicly accessible recreation facilities in Calaveras County is divided among a wide variety of public agencies, such as school districts, and private foundations/clubs, such as veterans districts.

Other Public Facilities

Libraries: The Calaveras County Library System is a countywide system consisting of a central library located in San Andreas and seven outlet facilities located in the communities of Angels Camp, Arnold, Copperopolis, Mokelumne Hill, Murphys, Valley Springs and West Point.

Hospitals: Calaveras County is served by Mark Twain St. Joseph's Hospital (MTSJH) located in San Andreas. Mark Twain St. Joseph's Hospital is a 48-bed hospital providing inpatient acute care and emergency

services. The hospital's medical staff averages 85 individuals and represents a range of specialties. In addition, Sonora Regional Medical Center clinics serve as urgent care during normal business hours.

4.14.2. Responses to Checklist Questions

a) Fire protection?

b) Police protection?

c) Schools?

d) Parks?

e) Other public facilities?

Responses a-e):

Less than significant: The projects recommended by the Project include a variety of transportation improvements that will not result in an increased need for any public services or facilities. The Project would not result in an increased demand, or require the need for expansion of the existing recreational facilities beyond what is planned in the General Plan. Implementation of the Project will have a ***less than significant impact*** on public services.

4.15. Recreation

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b)	Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

4.15.1. Background Discussion

Federal Lands Recreation

The Federal government is a major landowner in Calaveras County, with approximately 85,000 acres or 13 percent of the county's land area.

U.S. Forest Service (USFS). The Stanislaus National Forest–one of California's oldest National Forests established 1897–includes substantial portions of Alpine, Calaveras, Mariposa, and Tuolumne Counties. Within the Stanislaus National Forest, the Calaveras Ranger District encompasses the SR 4 corridor in both Calaveras and Alpine Counties. The Calaveras Ranger District provides numerous recreational opportunities, including 20 developed campgrounds and 279 miles of hiking trails.

U.S. Bureau of Land Management (BLM). BLM owns 34,033 acres in Calaveras County, consisting mostly of scattered low- to mid-elevation foothill lands. The Army Corps of Engineers also owns lands in association with the Bureau for operating BLM reservoirs. BLM land holdings in Calaveras County are of highly variable shape and size. Residents adjacent to BLM land parcels often use them informally for hiking, and the parcels serve as refuges for biological diversity.

State Lands Recreation

Calaveras Big Trees State Park straddles the Calaveras-Tuolumne County line along the North Fork Stanislaus River. About 40 percent of the park's more than 6,000 acres are located within Calaveras County, including the most heavily visited portions of the park near SR 4 and the North Grove. The North Grove has been a major tourist attraction ever since its discovery by European Americans in 1852. According to the

California Department of Parks and Recreation, the park is the longest continuously-operated tourist facility in California.

The park contains two groves of Sierra Redwood (Sequoiadendron giganteum), one in Calaveras County (the North Grove), and the other in a remote, hiker-accessible portion of Tuolumne County (the South Grove). The tallest tree in the park is over 300 feet high, and some of the older trees are an estimated 3,000 years old. The park contains two campgrounds and numerous trails and recreational facilities.

Reservoir Recreation Areas

Recreational facilities associated with Calaveras County reservoirs form an important part of the county's overall recreational inventory, especially in populous lower-elevation portions of the county that otherwise lack large tracts of easily accessible public land.

- Pardee Reservoir. The East Bay Municipal Utility District (EBMUD) owns and operates Pardee Reservoir, which receives water from the Mokelumne River. EBMUD allows non-contact recreational activities such as fishing, camping, and picnicking in the vicinity of this reservoir, which serves as important source of domestic drinking water.

- Camanche Reservoir. EBMUD owns and operates Camanche Reservoir, and permits contact recreational activities such as swimming and boating in the reservoir. Developed campgrounds and other recreational activities also exist at Camanche. Geographically, Camanche sits downstream of Pardee within the Mokelumne River watershed.

- New Hogan Reservoir. The United States Army Corps of Engineers owns and manages New Hogan Reservoir, which receives water from the Calaveras River. Although less developed than Camanche in terms of overnight facilities and services, New Hogan receives substantial use, including boating, swimming, fishing, picnicking, and camping.

- Tulloch Reservoir. The Tri-Dam Authority owns and operates Lake Tulloch for irrigation and domestic water supply, and permits boating and swimming. Lake Tulloch is a central focal point and community asset for the community of Copperopolis.

- New Melones Reservoir. New Melones Reservoir sits behind the enormous (625 foot) New Melones Dam on the Stanislaus River. The U.S. Bureau of Reclamation owns and operates New Melones Reservoir, which receives substantial boating, fishing, swimming, camping, and other recreational use.

- Salt Springs Reservoir. The Pacific Gas and Electric Company (PG&E) owns and operates Salt Spring Reservoir principally for hydroelectric power purposes. The reservoir sits at a high elevation location within the Stanislaus National Forest along the Mokelumne River. Fishing, boating, swimming, rock climbing, and camping are permitted.

- Salt Spring Valley Reservoir. This reservoir is located at a low-elevation location north of the community of Copperopolis. Fishing, boating, swimming, hunting, and camping are permitted.

- Spicer Reservoir. The Calaveras County Water District owns Spicer Reservoir at a high elevation location on the Stanislaus River system, and provides recreational facilities. The Northern California Power Agency operates the reservoir for power generation.

Local Recreation

Calaveras County does not directly maintain a system of park and recreation facilities. The County owns

Murphys Park, located in the town of Murphys, but the Murphys Community Club takes responsibility for park maintenance. Ownership of other publicly accessible recreation facilities in Calaveras County is divided among a wide variety of public agencies, such as school districts, and private foundations/clubs, such as Veterans districts. Generally, Calaveras County does not have much recreation in the form of local parks.

Other Recreational Area

Caves: Several large limestone caves represent a significant and unusual recreational feature in Calaveras County. Among these caves are the following: Mercer Caverns, Moaning Cave, California Caverns. Crystal Palace Cave, which is home to an unusual species of spider, is an additional attraction in the County.

Corridors and Trails: Ebbetts Pass, which is the upper portion of SR 4, has been designed as a State scenic highway. The designation occurs on 24 miles of road within Calaveras County from east of Arnold to the Alpine County line.

The Mokelumne River Coast-to-Crest is proposed to eventually create a multi-use trail across central California from the Pacific Coast to the crest of the Sierra Nevada. The proposed trail would generally follow the Mokelumne Aqueduct and the North Fork of the Mokelumne River.

Historic Ditches: The County is home to numerous ditches built during the Gold Rush era for irrigation and mining purposes. These ditches are provide good walking trails and have the potential to be transformed into trail systems.

Frogtown: The annual Calaveras County Fair and Jumping Frog Jubilee are held at Frogtown each year, as well as other public activities. Camping is also available at the site.

4.15.2. Responses to Checklist Questions

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Responses a-b):

Less than significant: The projects recommended by the Project include a variety of transportation improvements that will not result in an increased demand, or require the need for expansion of the existing recreational facilities. Furthermore, the recommended projects will not require a need for new recreational facilities. Implementation of the Project will have a ***less than significant impact*** on recreational facilities.

4.16. Transportation/Traffic

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

4.16.1. Background

Travel in the County

The regional movement of people within the county can be classified into three broad travel categories: commuters, recreational, and visitors. The county commute patterns consist mostly of automobile traffic from the smaller communities and rural areas to the Highways 4, 12, 26 and 49 corridors. Congestion levels at or near capacity for roads and transit are relatively short and usually occur in the morning and evening peak periods near major intersections. Recreational traffic patterns are dispersed over the day and evening and usually do not adversely affect street or transit capacity except during major events such as the county fair and annual Frog Jump in the City of Angels. The majority of interregional and intra-regional traffic continues to be concentrated in the Highways 4 and 49 corridors.

Roadway System

Figure 2.1 illustrations the functional classification of major roads in Calaveras County. The following information summarizes the existing road system in Calaveras County:

State Highways: The county is served by four state highways: State Route 4 (SR4) provides an east-west route from San Joaquin County to the high Sierra and Bear Valley ski resort; SR 49 is the major north-south route linking the communities of Mokelumne Hill, San Andreas, and Angels Camp to Amador and Tuolumne County; SR 26 traverses the northwest corner of Calaveras County between the San Joaquin County line near Rancho Calaveras and the Amador County line near West Point; and SR 12 travels through the western portion of the County and serves as a connector to San Joaquin County, and the communities of Wallace, Burson, Valley Springs, and San Andreas.

Local Streets and Roads: The roadway system in Calaveras County totals approximately 1,059 maintained miles. The entire system employs only 5 traffic signals in the whole County to meter traffic. Stop signs are typically used to control side street approaches to arterials and collectors. The distribution of government responsibility for maintaining the roads is as follows: State Highway 149.4-mi, City Roads-32.2 mi, County Roads-689.6 mi, Federal Roads-128 mi, State Parks Roads-60 mi.

For the 2007 RTP, the Calaveras County Department of Public Works developed a list of improvement projects for "local roads of regional significance." The criteria used for selection required each local roadway to connect major communities, provide parallel capacity for major transportation routes, or serve as emergency relief in case of major system emergencies (e.g., accidents, landslides, fires, flooding, etc.) The list includes:

- Avery Sheep Ranch Road
- Burson Road
- Jenny Lind Road
- Milton Road
- Moran Road
- Mountain Ranch Road
- Murphys Grade Road
- Paloma Road
- Pool Station Road

- Rail Road Flat Road
- Ridge Road
- Sheep Ranch Road

Level of Service

Level of Service (LOS) is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Six LOS options are defined for each type of facility that has analysis procedures available in the *Highway Capacity Manual* (HCM) 2010. Letters designate each LOS from A to F, with LOS A representing the best operating conditions and LOS F the worst. Safety is addressed through other measures.

Public Transportation

Public transportation has always played an important role in Calaveras County. Prior to 1999, demand-responsive transit services were only available in Calaveras County through the Human Resources Council under the name Calaveras Stagecoach. In 1999, the Calaveras Council of Governments initiated six deviated fixed-routes in addition to dial-a-ride service as Calaveras Transit. The service was provided through a private contractor. In 2004, the County Public Works Department began management of the Calaveras Transit program. The county contracts out to Paratransit Services for daily operations of Calaveras Transit. Per the existing contract which extends through 2015, Paratransit Services is responsible for the day-to-day operation of the transit system and the county is responsible for maintenance, the provision of vehicles, radio equipment, and fuel. Funds for Calaveras Transit are allocated by the Calaveras Council of Governments.

Aviation Facilities

The Calaveras County Airport (Maury Rasmussen Field) is a public general aviation airport located four miles southeast of the central business district of San Andreas. The airport is owned by the Calaveras County. The airport covers an area of 93 acres and contains one runway (13/31) that is 3,603 feet in length, 60 feet wide, and has two helipads (65 feet by 65 feet). There are 50 single engine, 2 multi-engine, and one ultra-light based aircraft. Annual operations are estimated at 32,000, with 87 daily.

Bike and Pedestrian Facilities

Most bicycle and pedestrian activity in Calaveras County occurs in the developed areas in the western portion of the county or along the Highway 4 corridor. As a result most of the county's existing sidewalks and pathways are located in those areas. There is a need for various improvements to these facilities including: ADA access throughout, improved signage, transit shelters/benches, improved pedestrian access to transit, sidewalk/pathway connectivity improvements, maintenance to existing facilities (i.e. surface repairs, obstacle removals, etc.).

The long-term vision for bike and pedestrian travel is to make Calaveras County a more accessible rural community, a place where there is a balance between the automobile and alternative modes, where bikeways and walkways are connected to provide a consistent experience within communities.

4.16.2. Responses to Checklist Questions

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than significant: By improving bicycling and pedestrian facilities in the county, the Project intends to provide opportunities for forms of transportation other than the automobile. These alternative transportation projects could reduce motor vehicle traffic and relieve congestion on the county's roadways. These facilities would also reduce the need for parking. The impact would be **less than significant**.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No impact: The Project is unlikely to generate changes in air traffic as it does not propose any structures that would impede a height limitation in close proximity to an airport. Therefore, **no impact** on air traffic patterns would occur as a result of the Project.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant: The Project proposes bicycle and pedestrian facilities that are compatible with the existing and planned roadway network. Bicycle and pedestrian facility design in California is governed by many design documents, the most important of which include the Access Board Draft Final Accessibility Guidelines for Outdoor Developed Areas, the Caltrans Highway Design Manual (HDM), the California Manual of Uniform Traffic Control Devices (MUTCD), and the California State Parks Accessibility Guidelines. Infrastructure improvements would enhance safety through appropriate separation of pedestrians from motorized traffic. Through compliance with these design documents, potential adverse impacts associated with design features would be reduced to a **less than significant** level.

e) Result in inadequate emergency access?

Less than significant: The Project includes on-street bikeways, off-street bike paths, sidewalk gap closures, and crossing improvements within roadway rights-of-way. Under standard County and City development review procedures, the local law enforcement agency and fire services agency are included in the design process to ensure that there are provisions for emergency access. The impact would be **less than significant**.

f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than significant: Implementation of the Project would provide for a number of bicycle and pedestrian facilities and programs intended to promote alternative transportation for commuting, recreation, and utilitarian trips. The impact would be **less than significant**.

4.17. Utilities and Service Systems

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state and local statutes and regulations related to solid waste?	☐	☐	☒	☐

4.17.1. Background Discussion

Wastewater Treatment

There are seven public agencies within the county that provide wastewater services to the populated areas of the county: Calaveras County Water District (CCWD), Murphys Sanitary District (MSD), San Andreas Sanitary District (SASD), Mokelumne Hill Sanitary District (MHSD), Valley Spring Public Utility District (VSPUD), Wallace Community Services District (WCSD), and the City of Angels.

Existing wastewater systems in the county generally are in need of improvement to current standards and some may not be capable of meeting existing service demands. Several areas of the county have limited capacity to meet the wastewater needs of future growth. In particular, there is a moratorium on new development in the San Andreas Sanitary District and Calaveras County Water District (Forest Meadows and Vallecito/Douglas Flat wastewater service areas).

Water Supply

The county's water supply needs are provided through five major water purveyors, two of which obtain water supplies from groundwater (Wallace Community Services District and Valley Springs Public Utility District) and three obtain water supplies from surface water (Calaveras County Water District, Calaveras Public Utility District, and Union Public Utility District). Currently, there are adequate supplies of water to meet the needs of existing and near future domestic water needs. Distribution infrastructure will be needed to serve future needs.

Storm Drainage

The stormwater drainage systems serving most areas of unincorporated Calaveras County consist of overland flow to natural drainage ways or to unlined open ditches and channels alongside public and private roads. Culverts are typically provided to route stormwater under driveway encroachments and roadways. Generally speaking, unlike more urbanized areas, there are few discrete stormwater outlets in Calaveras County that discharge collected stormwater from large geographic areas. Instead, most stormwater runoff from within the county sheet flows into roadside drainage ditches that discharge collected stormwater to various natural swales, creeks, rivers, and intermittent and perennial streams as determined by local topography.

Stormwater inlets are located along some county roads and state highways as well as in some parking lots and other large, public and private paved areas. These inlets typically convey localized drainage to adjacent open channel drainages and are not interconnected as part of a more extensive stormwater collection network. There are curbs and gutters in some of the County's newer residential developments and in some community town centers. Collected gutter flow either discharges into natural drainage swales, into roadside ditches, or into stormwater inlets. Stormwater flowing into inlets or catch basins is typically discharged through culverts to adjacent natural or man-made surface drainage channels.

The community areas within Calaveras County that have been designated as "regulated small MS4s" by the Central Valley Regional Water Quality Control Board (CVRWQCB) include: Arnold, Murphys, San Andreas, Valley Springs/Burson, Rancho Calaveras, and Copperopolis. Unincorporated areas of the county outside of the discharge permit areas identified above are not currently subject to regulation by the CVRWQCB as part of the Calaveras County MS4 Stormwater Discharge Permit. However, Calaveras County has proposed that

these areas be subject to many of the stormwater quality control measures that will be implemented within designated Stormwater Discharge Permit areas.

Solid Waste

The Rock Creek Solid Waste Facility encompasses an active Class II landfill, a transfer station, several recycling programs, and a household hazardous waste facility. Rock Creek accepts garbage, recyclable toxics, household hazardous waste, conditionally-exempt small-quantity generator/business hazardous waste, and several categories of recyclables including: appliances, cardboard, concrete and rubble, mixed construction and demolition waste, mixed recyclables (containers and paper), sheetrock, stumps, tires, and wood and yard waste. The Rock Creek Solid Waste Facility is open daily from 8:00am to 4:40pm and accepts waste only from Calaveras County and Alpine County sources. The Calaveras County Public Works Department estimates there is in excess of 30 years of capacity remaining. Solid waste and recycling is not considered a constraint in Calaveras County.

4.17.2. Responses to Checklist Questions

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e) Result in a determination by the wastewater treatment provider that 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?

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Comply with federal, state and local statutes and regulations related to solid waste?

Responses a-b), d-g):

Less than significant: The county has an elaborate network of public utilities and services, such as water, wastewater, and solid waste collection and disposal. It has been a goal of Calaveras County and City of Angels to maintain an adequate level of services for all public utilities and services provided to the community. Utility infrastructure exists in various parts of the incorporated and unincorporated county. The Project does not require the use of these utilities or infrastructure and would not result in the expansion of utilities or infrastructure. Implementation of the Project will have a ***less than significant*** impact.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than significant: The Project would result in additional impervious services and increased stormwater runoff. Mitigation measures presented in Section IX Hydrology and Water Quality provide various requirements relative to storm drainage. These include the preparation of a drainage study for each

individual improvement. The results of the drainage study would then allow for proper engineering and construction of storm drainage infrastructure (i.e. culverts, pipes, detention/retention ponds, biofilters, etc.) to control runoff and prevent flooding, erosion, and sedimentation. Each improvement would require a Storm Water Pollution Prevention Plan that would be submitted to the Regional Water Quality Control Board for review and approval prior to issuance of a General Permit for storm water discharge. The Project does not provide detailed engineering and drainage plans for any of the recommended projects because they will be completed at a project specific level at a later date once they are funded and up for approval. The Project would have a ***less than significant*** impact on storm drainage.

4.18. Mandatory Findings of Significance

Would the project:

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

4.18.1. Responses to Checklist Questions

Responses a-c):

Less than significant: As described throughout the analysis above, the Project will not result in any changes to General Plan land use designations or zoning districts, would not result in annexation of land, and would not allow development in areas that are not already planned for development in the General Plan and Zoning Ordinance. The Project would not result in new adverse environmental impacts. The Project would not threaten a significant biological resource, nor would it eliminate important examples California history or prehistory. The Project does not have impacts that are cumulatively considerable, nor would it have substantial adverse effects on human beings. Several mitigation measures are presented

throughout this document. With the implementation of these mitigation measures, the proposed project would have a ***less than significant*** impact on these environmental topics.