

El Dorado 49 Roadway Realignment

EL DORADO COUNTY, CALIFORNIA
DISTRICT 3-ED-49, KP 10.6/13.2 (PM 6.6/8.2)
4C0900

Initial Study with Proposed Mitigated Negative Declaration



Prepared by the
State of California Department of Transportation



GENERAL INFORMATION ABOUT THIS DOCUMENT

What's in this document:

The Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) have prepared this Initial Study, which examines the potential environmental impacts of the proposed project located in El Dorado County, California. This document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed avoidance, minimization and/or mitigation measures.

What you should do:

- Please read this Initial Study. Additional copies of this document are available at the El Dorado County Main Library at 345 Fair Lane, Placerville, CA and the Oak Ridge High School Library at 1120 Harvard Way, El Dorado Hills, CA. The Main Library is open Wednesday from 1:00 pm to 8:00 pm, Thursday from 1:00 pm to 6:00 pm, and Friday from 10:00 am to 5:00 pm. The Oak Ridge High School Library is open Monday through Wednesday from 7:30 am to 7:00 pm, Thursday from 7:30 am to 8:00 pm, Friday from 7:30 am to 3:00 pm and Sunday from 3:30 pm to 7:30 pm. Copies of the technical studies used to prepare this document are available for review at 2389 Gateway Oaks Drive, Sacramento, CA 95833.
- This document has also been placed on the Internet at: <http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm>
- We welcome your comments. If you have any comments regarding the proposed project please send your written comments to Caltrans by the deadline.
- Submit comments via postal mail to:
Jeremy Ketchum, Branch Chief, Environmental Management S1
Attention: Jennifer S. Clark, Environmental Coordinator
2389 Gateway Oaks Drive
Sacramento, CA 95833
- Submit comments via email to: Jennifer_S_Clark@dot.ca.gov.
- Submit comments by the deadline: January 30, 2006.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may: (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to: Department of Transportation, Attn: Jennifer S. Clark, 2389 Gateway Oaks Drive, Sacramento, CA 95833; (916) 274-0572 Voice or use the California Relay Service TTY number, (530) 741-4509.

03-ED-49-KP 10.6/13.2
(PM 6.6/8.2)
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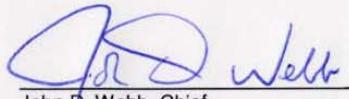
Rehabilitate Roadway on State Route 49 from KP 10.6 (PM 6.6) to KP 13.2 (PM 8.2),
just south of the town of El Dorado in El Dorado County

INITIAL STUDY with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

12-28-05
Date of Approval



John D. Webb, Chief
North Region Environmental Services
California Department of Transportation

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) propose to realign curves and widen shoulders on State Route (SR) 49 just south of the town of El Dorado in El Dorado County from kilometer post (KP) 10.6 to 13.2, postmile (PM) 6.6 to 8.2. The purpose of this project is to improve safety.

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a MND for this project. This does not mean that Caltrans' decision regarding the project is final. This MND is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project, and pending review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The project would have no effect on coastal zones, wild and scenic rivers, timberlands, paleontology, parks and recreation, growth, community character and cohesion, Environmental Justice, pedestrian facilities, hydrology and floodplains, geology, seismology, topography, or hazardous waste/materials.

In addition, the proposed project would have a less than significant effect on land use, farmland, community resources, utilities/emergency services, traffic and transportation, bicycle facilities, water quality and storm water run-off, soils, air quality, noise and oak woodlands. The proposed project will have less than significant cumulative impacts.

The proposed project would have less than significant impacts on cultural resources, wetlands, biological resources, and visual resources with mitigation incorporation. A Memorandum of Agreement will be prepared to mitigate the effects to cultural resources. Using Environmentally Sensitive Area (ESA) fencing and work windows will reduce impacts to wetlands and sensitive biological species. A revegetation plan will be prepared to reduce the impacts to visual resources. Mitigation credits will also be purchased to offset the effects of the proposed project.

John D. Webb, Chief
North Region Environmental Services
California Department of Transportation

Date

SUMMARY

The proposed project would widen shoulders, adjust the vertical and horizontal curves and remove objects within the Clear Recovery Zone. In order to construct this project, right of way acquisition will be required. Temporary construction easements will be needed to construct the project and relocate utilities. Widening of the shoulders and providing a clear recovery zone will result in the loss of farmland, vegetation and waters of the U.S. and could indirectly impact sensitive species. The following table quantifies impacts to farmlands, vegetation and waters of the U.S.:

Farmland	Area
Farmland needed to be acquired (approximate)	5.26 ha (13.00 ac)
Farmland of Local Importance	0.11 ha (0.28 ac)
Farmland that is enrolled in Williamson Act Contracts	2.88 ha (7.12 ac)
Vegetation	Area
Interior Live Oak Woodland	2.55 ha (6.29 ac)
Valley-Foothill Riparian Forest	0.50 ha (1.24 ac)
Waters of the U.S.	Area
Waters of the U.S. (permanent direct impact)	0.18 ha (0.44 ac)
Waters of the U.S. (indirect impact)	0.00 ha (0.00 ac)
Jurisdictional wetlands (permanent direct impact)	0.21 ha (0.52 ac)
Jurisdictional wetlands (indirect impact)	0.18 ha (0.44 ac)

Permits and consultation will be required for this project. Permits include a Regional State Water Quality Control Board Section 401 Certification, a Clean Water Act Section 404 permit from the United States Army Corps of Engineers (USACE) and a section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG). In addition, consultation with the United States Fish and Wildlife Service (USFWS) is required for potential impacts to California red-legged frog habitat. A Categorical Exclusion will be prepared pursuant to the National Environmental Policy Act (NEPA).

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LIST OF ABBREVIATED TERMS

ac	acres
ADI	Area of Direct Impact
ADL	Aerially deposited lead
APE	Area of Potential Effects
BMPs	Best Management Practices
Caltrans	California Department of Transportation
CDC	California Department of Conservation
CDFG/DFG	California Department of Fish and Game
CESA	California Endangered Species Act
CEQ	Council of Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon monoxide
CRLF	California red-legged frog
CRZ	Clear Recovery Zone
Dbh	Diameter at breast height
DWR	California Department of Water Resources
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FAE	Finding of Adverse Effect
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FOE	Finding of Effect
FPPA	Farmland Protection Policy Act
ft	foot/feet
FYLF	Foothill yellow-legged frog
GIS	Graphic Information Services
GPS	Global Positioning System
ha	Hectares
HDM	Highway Design Manual
HPSR	Historic Property Survey Report
in	inch(es)
km	kilometer(s)
KP	kilometer post
LOS	Level of service
m	meter(s)
MBGR	Metal beam guard rail
mi	mile(s)
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NCIC	North Central Information Center
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act

NMFS	National Marine Fisheries Service
NOA	Naturally occurring asbestos
NO ₂	Nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	Ozone
PA	Programmatic Agreement
PM	post mile
PM ₁₀	Particulate matter
PQS	Professionally Qualified Staff
RAP	Relocation Assistance Program
RWQCB	Regional Water Quality Control Board
RRR	Resurfacing, Restoration, and Rehabilitation
RSP	Rock Slope Protection
RTP	Regional Transportation Plan
R/W	Right of Way
SHPO	State Historic Preservation Officer
SHOPP	State Highway Operation and Protection Program
SR	State Route
SSP	Standard Specification Plans
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRQCB	State Water Resources Control Board
TRC	Transportation Concept Report
WPCP	Water Pollution Control Plan
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service

CHAPTER 1. PROPOSED PROJECT

1.1. PURPOSE AND NEED

The project lies within the foothills of El Dorado County, an area characterized by rolling terrain. State Route (SR) 49 is classified as an undivided Minor Arterial within the project limits. The northern part of the project limits has flat terrain with a curvilinear alignment whereas the southern half has a 4-5% grade, also on a curvilinear alignment. Within the project limits SR 49 has 3.3m (11 foot) lanes with minimal or no shoulders, along with ditches and other fixed objects adjacent to the traveled way.

The purpose of this project is to improve safety by reducing the number of collisions within the project limits. For the three-year period from April 1, 2000 to March 31, 2003, there were 25 reported collisions of which 15 were run off road and 18 resulted in injury (see table below). There were no reported fatalities for this three-year period, however the collision data shows that actual rates within the project limits are 3.5 times higher than average rates for fatal plus injury collisions. An effective countermeasure to reduce these types of run off road collisions is to provide a wider recovery area by means of a wider traveled way and shoulders, improving horizontal and vertical curve alignments, flattening out the roadside and eliminating fixed objects within the recovery area.

TABLE 1: ACCIDENT DATA

Location	Total Number of Collisions		Fatal		Fatal + Injury	
PM 6.7-8.2	25		0		18	
Actual Rates (per million vehicle miles)			Average Rates (per million vehicle miles)			
Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total	
0.0	3.23	4.48	0.037	.89	1.77	

1.2. PROJECT DESCRIPTION

The Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) propose to realign curves and widen shoulders on SR (SR) 49 in El Dorado County south of El Dorado from just south of Ore Court to near China Hill Road, kilometer post (KP) 10.6 to 13.2 (postmile (PM) 6.6 to 8.2). The project will widen the roadway to accommodate 3.6m (12ft) lanes and 2.4m (8ft) shoulders. The radii of horizontal curves will be increased and vertical curves will be flattened to meet current Highway Design Manual (HDM) standards. Work will also include culvert replacement with rock slope protection (RSP) for some of the culverts. New right of way will be needed. It is proposed to fund this safety project from the State Highway Operation and Protection Program (SHOPP) under the 010 Safety Improvement Program. See Figures 1 and 2 for Project Vicinity and Location Maps and Appendix F for Environmental Study Limit Mapping.

Work proposed for this project includes the following:

- A. Construct full 3.6-meter (12 foot) lanes and 2.4 meter (8 foot) paved shoulders through the entire project limits.
- B. Improve all horizontal curves to meet design standards.
- C. Grade slopes to 1:4 or 1:2. Some areas will be graded to 1:1 in order to reduce impacts to properties.
- D. Improve vertical curves to provide better sight distance.
- E. Install guardrail.

One structure may need to be removed for this project. Fences may need to be relocated through the majority of the project. Driveways will need to be reconfigured and a cosmetic rock wall and gate near the north end of the project will need to be torn down and reconstructed.

1.3. ALTERNATIVES

Build

This project has one build alternative (preferred alternative) as described in the “Project Description” section above. New right of way (R/W) will be acquired for this alternative.

No-Build

The No-Build alternative would do nothing to improve safety.

1.4. PERMITS AND APPROVALS NEEDED

Areas within the jurisdiction of Clean Water Act section 404 were delineated within the project study area and consultation with the United States Army Corps of Engineers (USACE) will be necessary in accordance with legal requirements set forth under section 404 of the Clean Water Act. A section 404 Permit is required for this project. As a result, this project will also require a section 401 certification from the California Regional Water Quality Control Board (Central Valley Region).

Areas within the jurisdiction of California Fish and Game Code section 1600-1616 were observed within the project study area and consultation with state resource agencies will be necessary in accordance with legal requirements set forth under sections 1600-1616 of the California Fish and Game Code. A section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) is required for this project.

Because federally listed species may be affected by the proposed project, consultation with federal resource agencies (United States Fish and Wildlife Service) is necessary in accordance with legal requirements set forth under section 7 of the Endangered Species Act (19 U.S.C. 1536c).

This project will be covered by the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit (CAS # 000003, Order # 99-06-DWQ), issued by the State Water Resources Control Board.

FIGURE 1: PROJECT VICINITY MAP

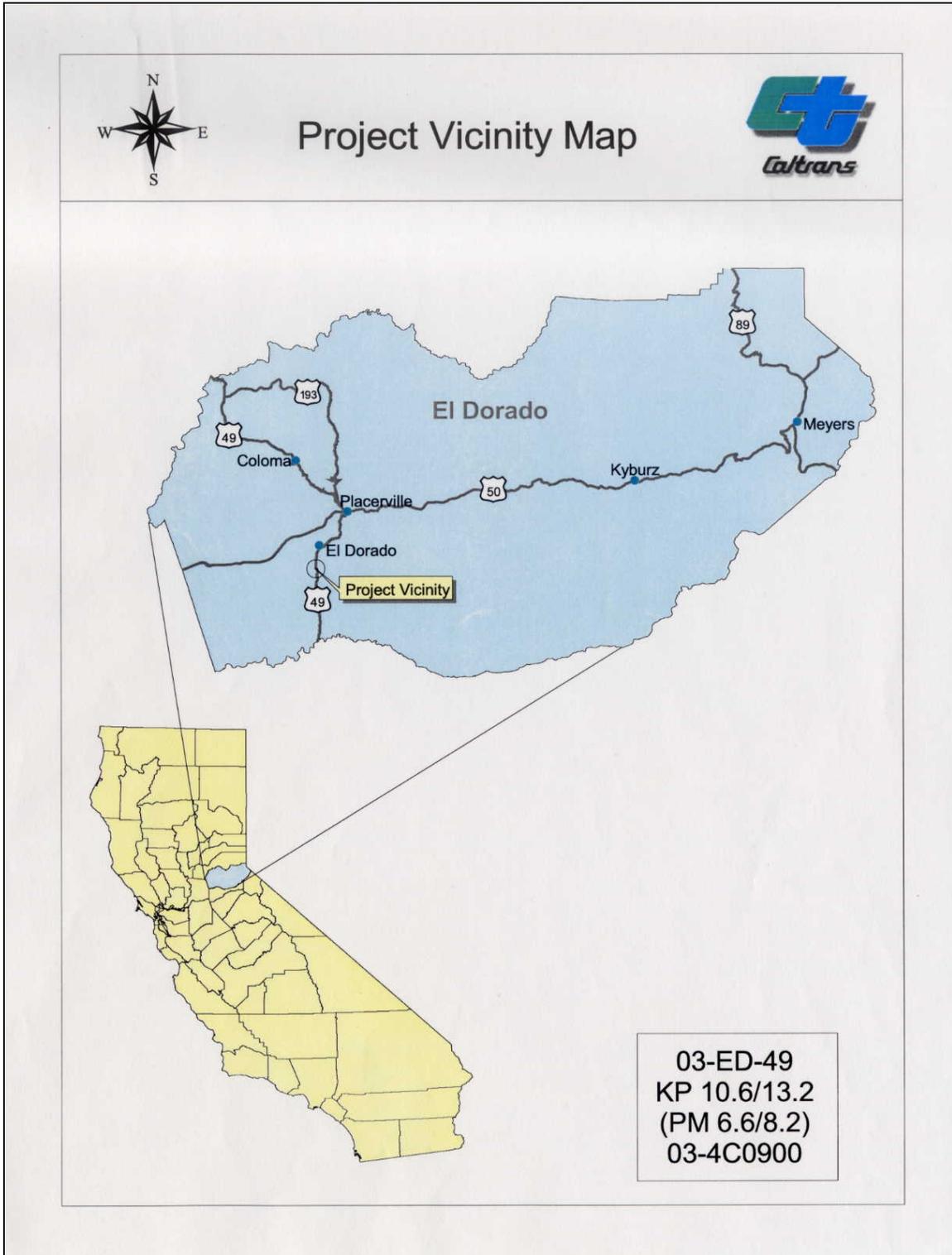
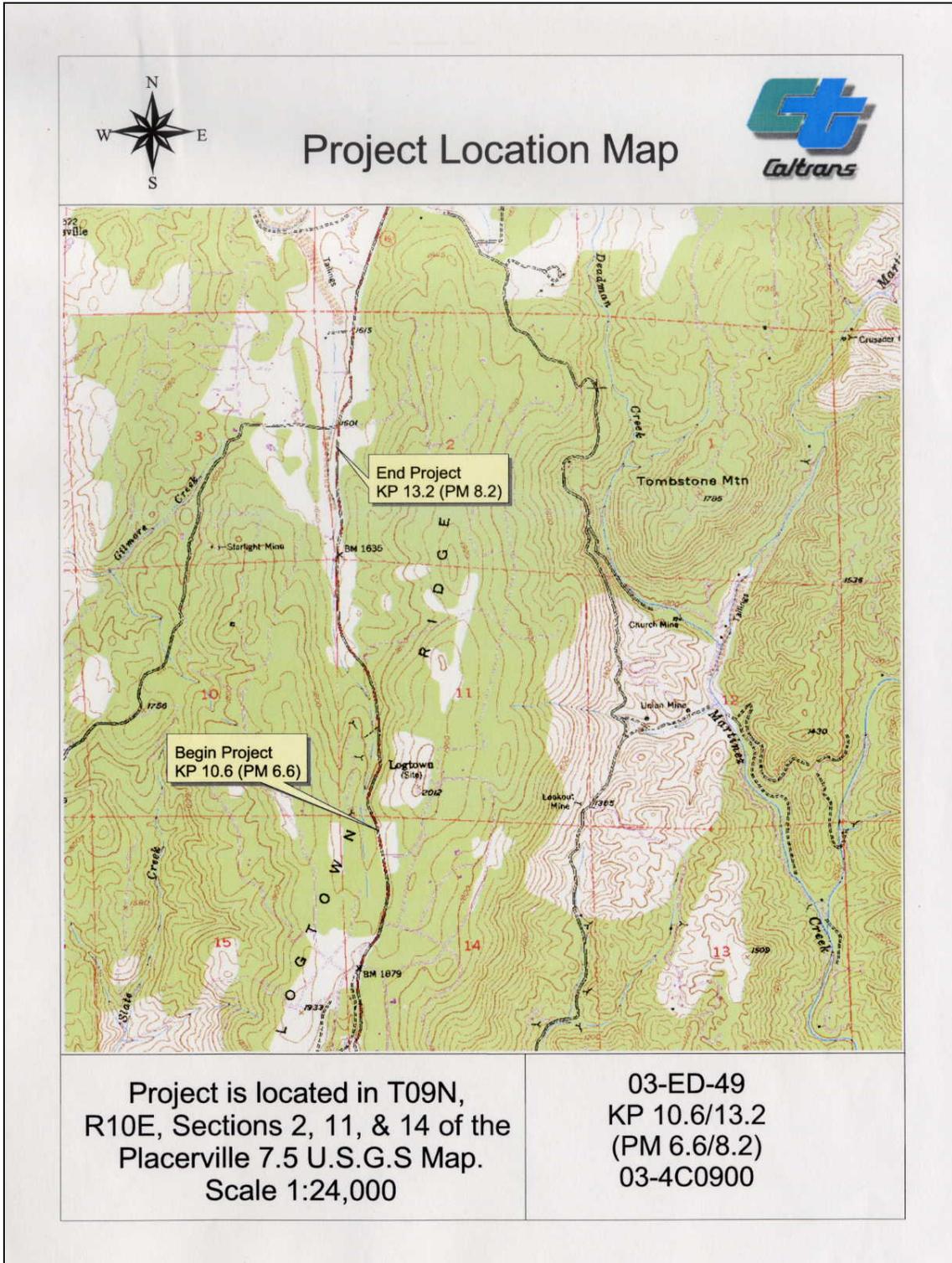


FIGURE 2: PROJECT LOCATION MAP



CHAPTER 2. AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND AVOIDANCE, MINIMIZATION &/OR MITIGATION MEASURES

2.1. HUMAN ENVIRONMENT

As part of the environmental analysis conducted for the project, the following environmental resources were considered:

Coastal Zone
Wild and Scenic Rivers
Timberlands
Paleontology

These resources are not present within project limits and will not be affected by the project. No potential for adverse impacts to these resources was identified. Consequently, there is no further discussion regarding these resources in this document.

2.1.1. Land Use

Existing and Future Land Use

The project is in a rural, unincorporated area of El Dorado County, about six miles south of Placerville on SR 49. The nearest community is El Dorado, located at the intersection of Pleasant Valley Road and SR 49, about a mile north of the project area. There are several small businesses in El Dorado, as well as a post office and three public schools. SR 49 is the primary north-south route through the Sierra Nevada foothills and the California Gold Country. Cities along SR 49 to the north include Placerville, Auburn and Coloma. Cities to the south include Plymouth, Jackson, Angels Camp, and Sonora.

In the project area, SR 49 is a narrow, two-lane highway. There are no sidewalks and the shoulders are narrow or non-existent, providing little room for pedestrians or bicyclists. The project area is a mixture of rural residential and agricultural uses. The agricultural uses in the area are within Exclusive Agricultural (AE) districts. This zoning code is specific to properties that have been enrolled in contracts between the property owner and El Dorado County under the California Land Conservation Act of 1965 (the Williamson Act). The majority of the rural residential land in the area is within Estate Residential Five-Acre (RE-5) districts. This zoning provides for single-family residences on parcels no smaller than five acres. The residential land to the east of SR 49 at the southern end of the project is within a Single-Family Two-Acre Residential (R2-A) District. The zoning allows single-family homes on parcels of two or more acres. There are no planned developments within the project area.

Impacts

Portions of the parcels adjacent to the highway will need to be acquired to construct this project. The acquisition of this land is not expected to substantially affect existing or future land use. Impacts to Williamson Act Land are discussed under Farmlands.

CEQA Considerations

Less than significant impacts to land use pursuant to California Environmental Quality Act (CEQA) are anticipated.

Consistency with State, Regional and Local Plans

The El Dorado County General Plan referred to for the purposes of this report is the version adopted on July 14, 2004. This project would be consistent with local planning, specifically Goal TC-1, "To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods," and Goal 6.9, "Provide highways within the County that provide for the safe movement of goods and people throughout the County." The purpose of this project is to improve safety along this section of SR 49. In addition, many avoidance, minimization and mitigation measures have been added to this project to protect the natural resources of El Dorado County.

Parks and Recreational Facilities

There are no parks or recreational facilities within the project's limits.

2.1.2. Growth

Regulatory Setting

CEQA requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

The greatest obstacles to growth in the project area are government restrictions; much of the vacant land in the area is zoned for agricultural use and is under Williamson Act contracts.

The project would not alter zoning or alter conditions in the area in such a way as to make a change in zoning more likely. The project would not add capacity or urban features (such as sidewalks) to the roadway. The project would not affect commute times in this area in such a way as to make undeveloped areas of El Dorado County more accessible to regional job centers. No impacts on the local growth rate would occur.

2.1.3. Farmlands

Regulatory Setting

The Farmland Protection Policy Act (FPPA, USC 4201-4209; and its regulations, 7 CFR Ch. VI Part 658) require federal agencies, such as FHWA, to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local

importance. The land does not currently have to be used for cropland. It can be forestland, pastureland, cropland, or other land, but not water or urban developed land.

The California Land Conservation Act of 1965 [Cal. Govt. Code S.51200-51295], commonly known as the Williamson Act, provides incentives, through reduced property taxes, to deter the early conversion of agricultural and open space lands. Farmland need not be considered "prime" in order to be placed under provisions of the Williamson Act. The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses.

The Act, administered by the Office of Land Conservation within the California Department of Conservation (CDC), offers use-value property tax benefits to farm and open-space landowners who voluntarily enter into contracts. These contracts specify that the owners will not convert their land to nonagricultural uses for at least a ten-year period. At the end of each year within the 10-year contract period, the contract is automatically renewed for an additional year, unless the landowner or the local government moves to terminate the contract. Termination can occur in one of four ways: 1) non-renewal, 2) cancellation, 3) eminent domain or 4) city annexation under certain circumstances.

California Government Code Section 51292 states that no public agency shall locate a public improvement within an agricultural preserve unless the following findings are made:

1. The location is not based primarily on cost and
2. There is no other land on which it is reasonably prudent to locate the improvement.

However, Government Code Section 51293(g) states that the requirements of Section 51292 do not apply to "All state highways on routes as described in Sections 301 to 622, inclusive, of the Streets and Highways Code...."

According to Government Code Section 51295, the Williamson Act contract is null and void only for the land actually being condemned, unless the remainder of the parcel is "adversely affected."

Affected Environment

Within the project area, there is farmland of local importance, grazing land and Williamson Act land. The land within the project area is predominantly used for grazing. See Figure 3 for an overview of the existing farmland within the project area.

Impacts- Farmland

The project would require the acquisition of approximately 5.7 hectares (ha) (13 acres) of farmland. Approximately 0.11 ha (0.28 acres) would be Farmland of Local Importance. Countywide, there are over 60,000 acres of Farmland of Local Importance.

The primary tool for determining the potential impacts of farmland conversion is Form AD-1006, provided in Appendix B. This form provides a system for rating farmland's characteristics and measuring the impacts of farmland conversion. The NRCS rates the land's quality on a scale of 0 to 100. The federal agency (or Caltrans as FHWA's designee in this case) rates the conversion's impact on a scale of 0 to 160. If the combination of these two scores exceeds 160 points, the guidelines require that the

federal agency consider alternatives, such as using areas that have already been developed, that are not considered farmland, or that have inferior soils.

The proposed project scores below 60 points on Part VI, "Site Assessment Criteria" of the AD-1006 form. Because the highest possible score on the Land Evaluation portion of the assessment is 100 points, the project's combined land evaluation and site assessment scores would be lower than 160 points. Therefore, the project can be determined to have no substantial impact on farmland resources. Consultation with the NRCS is not required.

CEQA Considerations

Less than significant impacts to farmlands pursuant to CEQA are anticipated.

Impacts-Williamson Act

The project would require approximately 2.88 ha (7.12 acres) of land under Williamson Act contracts, as shown in Table 2.

TABLE 2: WILLIAMSON ACT LAND IMPACTS

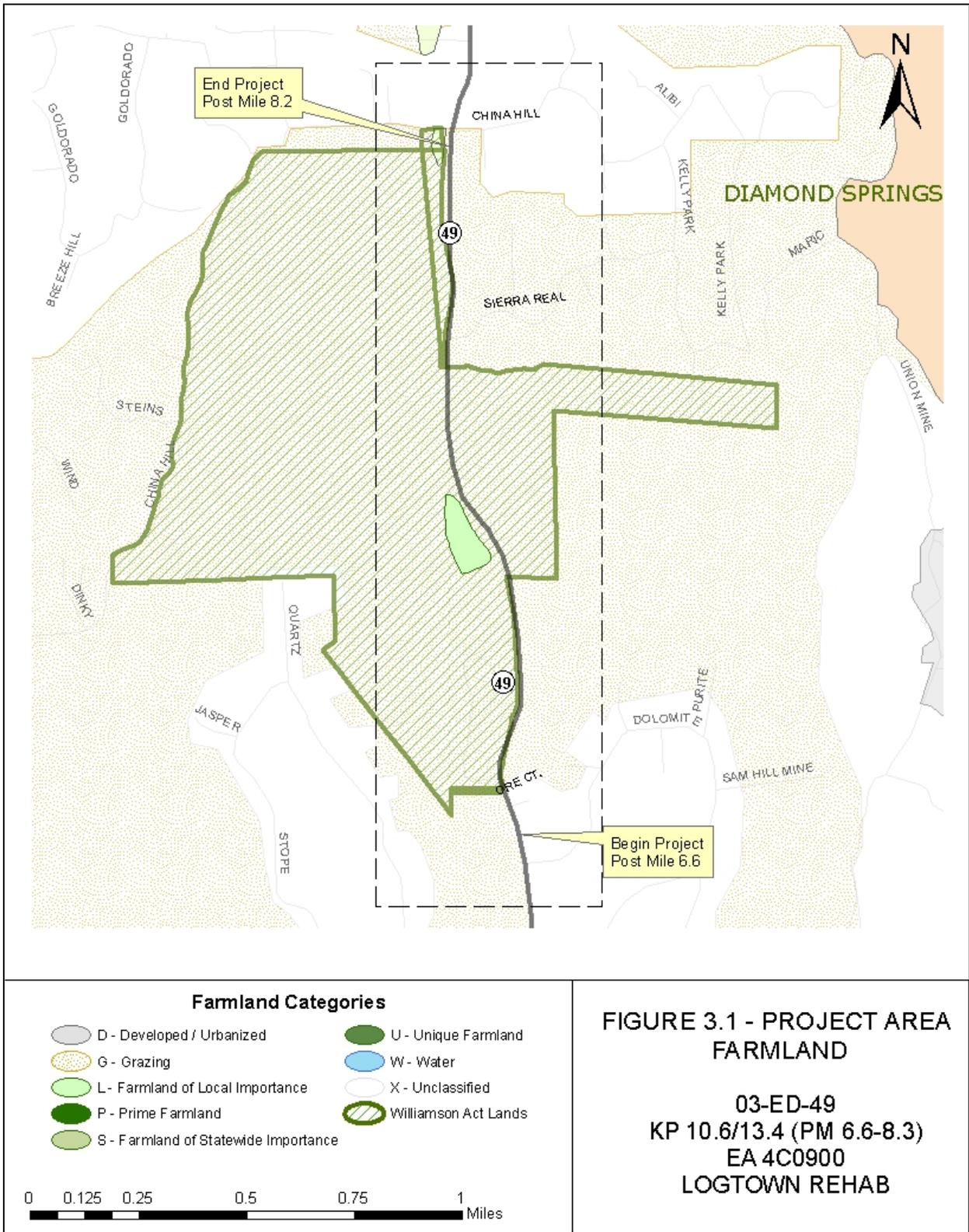
APN	Total Area	Required Area for Project	Percent of Parcel Affected
092-011-09	234.00 ha (579.00 ac)	2.78 ha (6.86 ac)	1.18%
092-011-10	3.00 ha (8.00 ac)	0.10 ha (0.24 ac)	3.00%
092-560-01	0.30 ha (0.75 ac)	0.01 ha (0.02 ac)	2.67%

Parcel 092-011-09 occupies both sides of State Route 49 in the project area; no roadway widening can take place without using some of this property. The two smaller parcels, 092-011-10 and 092-560-01, are situated adjacent to SR 49 in this area. The purpose of the project is to improve driver safety by widening the roadway and straightening out curves, which requires property acquisition on both sides of the highway. Acquisitions of Williamson Act parcels have been minimized to the greatest extent possible. Thus, the findings required by Government Code Sections 51292(a) and 51292(b) can be made. The use of Williamson Act land is not based primarily on cost; it is based on necessity and on the existing highway's condition.

CEQA Considerations

Less than significant impacts to Williamson Act Properties pursuant to CEQA are anticipated.

FIGURE 3: FARMLAND ANALYSIS



2.1.4. Community Impacts

Community Character and Cohesion

Regulatory Setting

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

Most of the housing in the project area is on the eastern side of SR 49. The majority of the project area is farmland. There is a small neighborhood near Ore Court and a cluster of homes near China Hill Road.

Impacts

The proposed project would not be likely to alter the existing setting in an appreciable manner. No impacts to community character and cohesion are anticipated.

Relocations

Regulatory Setting

The Department's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 U.S.C. 2000d, et seq.). Please see Appendix D for a copy of the Department's Title VI Policy Statement.

Impacts

Portions of parcels adjacent to the highway within the project limits will need to be acquired to construct this project. No businesses or residences would be acquired because of this project and no relocations will be required. There is one structure near Ore Court that may need to be removed. Driveways will need to be reconfigured and mailboxes relocated. Caltrans Right of Way Department will coordinate with affected property owners concerning compensation for loss of property.

CEQA Considerations

Less than significant community impacts pursuant to CEQA are anticipated.

Environmental Justice

Regulatory Setting

This project has been developed in accordance with the Civil Rights Act of 1964, as amended, and Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The Executive Order requires each Federal agency (or its designee) to take the appropriate and necessary steps to identify and address "disproportionately high and adverse" effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

Impacts

No minority or low-income populations have been identified that would be adversely impacted by the proposed project as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.

2.1.5. Utilities/Emergency Services

Affected Environment

This project will require utility relocation. Emergency services are provided by the El Dorado County Sheriff's Office in Placerville and the Diamond Springs - El Dorado Fire Protection District.

Impacts

During construction, traffic will be delayed, causing potential for minor increases in emergency response times.

CEQA Considerations

Less than significant impacts to utilities and emergency services pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

A detailed Traffic Management Plan will be included as part of the Contractor's specification package in order to manage temporary construction delays.

2.1.6. Traffic and Transportation/Pedestrian and Bicycle Facilities

Affected Environment

El Dorado County Transit operates a bus route that serves El Dorado and Diamond Springs, providing connections between these communities and Placerville. No transit service runs along SR 49 within the project limits.

The El Dorado County Bicycle Transportation Plan adopted in 2005 does not propose bicycle facilities along SR 49 through the project area. The Plan's emphasis for this part of the county is on making Union Mine Road, which runs parallel to SR 49 in this area, a Class III Bike Route. A Class III Bike Route provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists. A Class II Bike Lane provides bicycles with an exclusive right-of-way on the roadway. A Class I Bike Path is

a completely separate facility for the use of bicycles and pedestrians. The project would improve accessibility for bicyclists and pedestrians by adding standard eight-foot shoulders to this portion of SR 49.

Impacts

No special signage or markings for bicycle facilities will be provided through this area, but the 2.4-meter (8 foot) shoulder width will enhance bicycle travel.

Construction will require extensive excavation of a rocky hillside, which will require some blasting. The nature of this work is such that a detour along Union Mine Road, which can be accessed by way of China Hill Road, may be needed for several weeks during the construction period. Caltrans typically notifies highway users of proposed detours well in advance of their implementation by a combination of press releases and changeable message signs. If these tools were utilized in this case, through traffic would be minimally affected. The use of this detour would dramatically increase traffic levels on both China Hill Road and Union Mine Road, however impacts resulting from this increase would be temporary and not likely to have a serious adverse effect on residents. Distance traveled would increase by 2.9 kilometers (1.8 miles) during the detour period; this is a negligible distance for most travelers.

During construction, motorists and cyclists will experience delays. It is anticipated that lane closures will be required and one lane with reversible control will be used to manage traffic. Impacts to motorists and cyclists will be temporary.

CEQA Considerations

Less than significant impacts to traffic and transportation and bicycle facilities pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

A detailed Traffic Management Plan will be included as part of the Contractor's specification package in order to manage temporary construction delays.

2.1.7. Visual/Aesthetics

Regulatory Setting

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities." [CA Public Resources Code Section 21001(b)]

Affected Environment

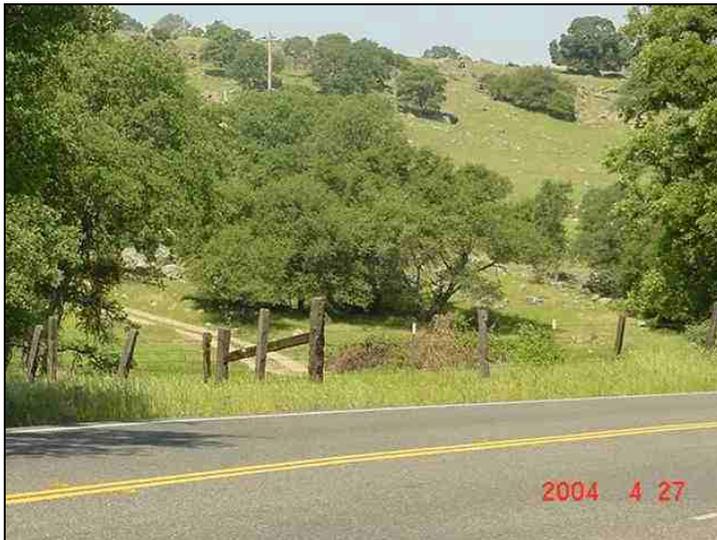
Within the project area, the landscape is rural in character. The highway winds in and out of fenced fields and grassy, grazed hillsides with occasional rocky outcroppings. The corridor is partially lined with oaks, cottonwood, pine and black walnut. In some sections of the project, trees line one or both sides of the highway, creating the feeling of a corridor with an arching canopy overhead. Other sections are more open, and provide long views of surrounding hillsides. A riparian corridor follows the highway on the west, sometimes immediately adjacent to the roadway, sometimes farther away.

Impacts-Viewsheds

There are three viewsheds, or landscape units, within the project site. The visual quality of these viewsheds was evaluated using three characteristics, vividness, intactness, and unity. These can be rated with a value from 1 = very low quality to 7 = very high quality.

- **Vividness** is the memorability of a landscape as contrasting landscape elements combine to create a striking or distinctive visual pattern.
- **Intactness** refers to the integrity of the landscape, and freedom from visually encroaching elements.
- **Unity** refers to the visual coherence and compositional harmony of the landscape considered as a whole.

Viewshed 1: SR 49 from Ore Court, from KP 10.7 to 11.7 (PM 6.7 to 7.3)



Viewshed 1 is distinguished by mature trees on one or both sides of the road, interspersed with long views of grassy hillsides with scattered oaks. The drive is visually appealing, and consistently pleasant. *Intactness* and *unity* both rate a 5, as the overall feeling is of a rural landscape with few inappropriate built elements. *Vividness* rates a 4, because although the drive is very pleasant, there is not one distinctive or outstanding element that makes this section memorable.

The major impacts to this viewshed will result from tree removal, cut and fill, and road widening. Many of the oak trees that line one or both sides of the highway will be removed for the project, creating more long views, but decreasing the feeling of canopy over the roadway. The roadway will be somewhat more visible to houses in Ore Court. With mitigation measures incorporated, the visual quality ratings will not change.

Viewshed 2: SR 49 from KP 11.7 to 12.6 (PM 7.3 to 7.8)



Viewshed 2 is a much more open, sparsely treed section of ED 49. The views open up and give long views of grassy hillsides with rock outcroppings. The *vividness* of this viewshed rates a 6, since the long views and rocky outcrops provide an unusual, memorable landscape to motorists. The landscape has very few encroachments, so the *intactness* also rates a 6. The overall feeling for the motorist is of a rural landscape with little to no inappropriate built elements that encroach on the enjoyment of the landscape. The *unity* of this viewshed rates a 5, as the landscape elements combine to form a harmonious pattern.

The major visual impacts within this viewshed will be removal of trees immediately adjacent to the road, cut and fill, and road widening. In viewshed 2, far fewer trees line the roadway, and the long views are the most distinctive. Tree removal in this viewshed will have both positive and negative visual impacts. Trees will be lost immediately adjacent to the roadway, which leads to a change in the canopied, rural character of the drive. However, new long views of the surrounding hillsides will be created by new openings. Several houses will have a slightly increased view of the highway. With mitigation incorporated, the visual impacts of these changes balance out, and the visual quality ratings of the viewshed will not change.

Viewshed 3: SR 49 from KP 12.6 to 13.2 (PM 7.8 to 8.2)



Viewshed 3 is distinguished by a change in the long views for motorists. The hillside to the east of the project throughout this section is thickly forested. Two stone monuments mark the entry to the Sierra Vista housing development. This sign is urban in nature and is an indication that the north end of this viewshed is the beginning of the transition from the more rural and natural section of SR 49 to the outskirts of the town of El Dorado.

This viewshed rates a 5 for *vividness* and *intactness*. The forested backdrop to the east and the continuation of grassy hillside and riparian area to the west create an interesting visual pattern, and there are few encroaching elements. The rural character of the buildings and landscape are generally harmonious, giving a rating of 4 for *unity*.

The impacts in this viewshed differ from the other two viewsheds because of the thick forest to the east of the highway. Although trees will be removed from immediately adjacent to the road, there will be little effect from the tree removal, because the forested backdrop will remain. The entrance monument at Sierra Vista is within the new alignment, and will need to be replaced in kind. With mitigation incorporated, visual quality ratings for this viewshed will not change.

Impacts-Corridor

Visual quality, or the relative excellence of views, is moderate to high throughout the corridor. Along the entire project, approximately 370 mature trees will be removed to provide space for wider shoulders and road realignment. These trees will need to be replaced within the existing project right of way, or right of way will need to be purchased for mitigation planting. The visual impacts of this project are potentially significant unless mitigation is incorporated. The photo simulation below gives an example of the effect of the project to the visual environment.

Viewshed 2: Existing Conditions



Viewshed 2: Post Project Simulation



There will be a short term, adverse visual impact from the extensive cut and fill on this project. In some cases, the cut and fill will be 1:1 slopes, and on other cases up to 1:4 slopes. The 1:1 slopes shall be left as exposed bedrock, rather than using retaining walls. This is in keeping with the visual character of the project area, reflecting both

existing cut slopes and the rocky outcroppings. In the case of the shallower cut slopes, the new cut slopes and exposed soil will be visible to drivers and in some cases adjacent homeowners. Mitigation includes contour grading cut slopes to blend into existing topography and revegetation on all exposed soil. After mitigation to restore the cut slopes has taken place and vegetation has obscured the new cut and fill, the visual quality should equal pre-project conditions.

There will be a minor adverse impact from the addition of shoulders to this roadway. Addition of shoulders will create a wider, less shady driving experience, as well as changing the rural “feeling” of the roadway.

CEQA Considerations

With mitigation, less than significant impacts to visual resources pursuant to CEQA are anticipated.

Avoidance, Minimization, and Mitigation Measures

- Use local native rock for Rock Slope Protection (RSP) around culverts and at any slope instability areas.
- Develop a storm water treatment location that pre-treats runoff from the project area before discharge. The storm water treatment shall be designed with the Landscape Architecture branch so that the site visually enhances the surrounding natural wetland areas.
- The stone entrance monument at Sierra Road (KP 12.52/PM 7.8) shall be reconstructed with like materials.
- Trees that are not within the direct alignment of project facilities or which must be removed for safety reasons shall be avoided.
- All native oak trees that are to remain within and adjacent to the proposed project shall be designated as “environmentally sensitive areas” (ESAs) and shall be temporarily fenced with orange plastic construction (exclusion) fencing throughout all grading and construction activities. The exclusion fencing shall be installed 1.8 m (6 ft) outside the dripline of each specimen tree, and shall be staked a minimum of every 1.8 m (6 ft). The fencing is intended to prevent equipment operations in the proximity of protected trees from compacting soil, crushing roots, or colliding with tree trunks or overhanging branches.
- No construction equipment shall be parked, stored or operated within 1.8 m (6 ft) of any specimen tree dripline.
- Duff and topsoil containing native seed stock shall be removed and stockpiled separately from subsoils. The soil will be used during revegetation upon completion of construction activities.
- Temporary erosion control measures shall be used during construction. These measures may include Erosion Control (Type D), fiber rolls, and erosion control blankets or fabric.
- A Revegetation and Restoration Plan shall be prepared by the project biologist, project landscape associate, and Caltrans revegetation specialist for the project. The revegetation plan shall address the following:
 - ❖ The revegetation /restoration plan shall be designed to minimize soil loss immediately after construction and to revegetate disturbed areas with native plants for long-term erosion control. The revegetation /restoration plan shall be implemented to compensate for the loss and/or disturbance of vegetation on the project site, areas cleared for access and construction staging areas. The

- restoration plan elements will be graphically depicted on final construction plans, including the location and extent of the dripline for all trees, type and location of any fencing, and equipment storage and staging areas outside of dripline areas.
- ❖ Where road alignment has changed, the existing roadbed shall be obliterated, and asphalt and subgrade removed to expose native material.
 - ❖ Revegetation and replacement planting shall take place within the existing project right of way to the extent feasible.
 - ❖ Plants selected for revegetation will be native species appropriate for the project area and will not include any noxious or invasive weeds. Seeds and container-grown plants shall be obtained from within the project area when feasible or from contract growers using locally occurring native plants. Advance notice shall be given to the suppliers or growers to ensure that the required species are ready at the proposed planting time.
 - ❖ Protected trees that are removed or damaged (more than 25 percent of root zone disturbed) shall be replaced according to El Dorado County guidelines.
 - ❖ Seeds (acorns) and container grown plants shall be obtained from within the project area when feasible or alternatively from contract growers using locally occurring native plants. Advance notice shall be given to suppliers or growers to ensure that the required species are ready at the proposed planting time. To enhance survival rates, tree plantings should be from liners or cuttings. Plant material in containers larger than one gallon will be avoided, if possible.
 - ❖ Planting shall take place in the fall and winter following the final construction season.
 - ❖ A monitoring program will be implemented. All revegetation areas will be monitored weekly for the first two weeks; followed by monthly monitoring for three months; and then quarterly monitoring for the next 12 months unless success criteria are met earlier. After the first year, tree and shrub species will be monitored on an annual basis for a period of five years. Monitoring will continue until performance standards are met.
- Where feasible, cut slopes shall be 1:1 and shall leave underlying bedrock exposed.
 - Where shallower cut slopes are used, the top of the cut shall be contour graded to blend into existing topography.
 - Cut slopes of 1:2 to 1:4 shall be used for revegetation and/or restoration. Contour grading plans will be prepared by the project landscape associate for these areas. Duff and topsoil shall be removed and stockpiled separately from subsoils, and used during revegetation upon completion of construction activities. Duff should be examined for noxious weeds by project biologist before stockpiling.
 - Implement appropriate temporary erosion and sediment control measures to minimize adverse effects to the adjacent wetlands and adjacent properties at the completion of each construction season with a final permanent treatment upon completion of the project.

2.1.8. Cultural Resources

Regulatory Setting

The National Historic Preservation Act (NHPA), as amended, sets forth national policy and procedures regarding "historic properties" -- that is, districts, sites, buildings, structures and objects included in or eligible for the National Register of Historic Places. Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on such properties, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800).

This project is federally funding which constitutes it as a "federal undertaking" and is, therefore, subject to the guidelines and procedures outlined in the January 2004 *Programmatic Agreement Among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer (SHPO), and the California Department of Transportation (Caltrans) Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*. The PA is the FHWA's approach for taking into account the effects of the Federal Aid Transportation Program on historic properties in California and for complying with Section 106 of the National Historic Preservation Act.

Under California law, cultural resources are protected by the CEQA as well as Public Resources Code Section 5024.1, which established the California Register of Historic Places. Section 5024.5 requires state agencies to provide notice to, and to confer with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historic resources.

Affected Environment

An Area of Potential Effects (APE) map was established for this project in order to outline the potential project effects on cultural resources. The APE delineates the limits of any construction impacts and includes both the existing and proposed right of way and all staging and disposal areas. The APE also includes the limits of fence relocation and placement of protective Environmentally Sensitive Area (ESA) fencing prior to the start of actual roadway construction. Where the APE met a cultural resource, it was drawn to include the entire resource. In addition, an Area of Direct Impact (ADI) was established. The ADI represents the extent of the proposed direct construction activities. The APE/ADI were delineated in consultation with Caltrans Construction, Design and natural sciences staff. The APE was approved by Kendall Schinke, Professionally Qualified Staff (PQS) Lead Archaeological Surveyor, and Murray Mullen, Project Manager, as required by Stipulation VI.B.7 of the PA, on May 26, 2005.

The following contacts were made in an attempt to identify any cultural resources within the project limits. Letters, emails, and phone calls regarding the proposed project were sent or made to El Dorado County museums, historical societies and local residents. Extensive Native American consultation was also conducted for this project and included a request to the Native American Heritage Commission regarding any sacred Native American sites that may be located within the project area, as well as a request for Native American contacts. Letters, phone calls and emails were sent or made to the 9 contacts provided by the NAHC. A literature and record search was conducted by the

North Central Information Center (NCIC) in September 2004 and Caltrans staff performed pedestrian surveys in 2005.

Two cultural resources were identified within the project's APE; neither had been previously evaluated for listing on the National Register of Historic Places (NRHP). Additional studies were performed by Caltrans staff and by archaeological consultants in order to evaluate the resources. Caltrans staff used information from their consultation efforts with local historical societies and museums, the Native American community, the NCIC, and archaeological investigations to prepare a Historic Property Survey Report (HPSR).

Impacts

Caltrans, on behalf of FHWA, has determined that CA-ELD-685H, is eligible for the NRHP and has requested concurrence from SHPO on this finding. If SHPO concurs with Caltrans' findings, a Finding of Effect (FOE) will be prepared; outlining project effects on historic properties, and submitted to the SHPO for concurrence. If it is agreed that the project will have an Adverse Effect on CA-ELD-685H, a Memorandum of Agreement (MOA) will be written, stipulating mitigation measures. When FHWA and the SHPO have reached an agreement for avoiding, reducing, mitigating, or accepting adverse effects on historic properties, they will sign the MOA.

The second site, CA-ELD-851, is assumed eligible to the NRHP for the purposes of this project, however, archaeological investigations showed that the portion of the site within the ADI was sparse and highly disturbed and did not contribute to the site's eligibility. Caltrans requested concurrence that the portion of the site within the ADI is not eligible for the NRHP. The portion of the site assumed eligible for the NRHP will be protected during construction. An ESA action plan has been prepared as a part of the HPSR. The ESA Action plan documents the protocol that will be followed during construction to ensure protection of the site.

CEQA Considerations

With mitigation, less than significant impacts to cultural resources pursuant to CEQA are anticipated.

Avoidance, Minimization and Mitigation Measures

- A MOA will be written stipulating mitigation measures for CA-ELD-685H.
- An ESA action plan will be prepared to protect CA-ELD-851 during construction. No work within the protected site will be allowed during construction. During those times when work occurs adjacent to the site, a Caltrans archaeologist will be present to guide the work and monitor any excavation.

2.2. PHYSICAL ENVIRONMENT

2.2.1. Hydrology and Floodplain

A Floodplain Analysis was prepared using data from Caltrans' Graphic Information Services (GIS) Library. The GIS data was obtained from the Federal Emergency Management Agency (FEMA). The Floodplain Analysis found that the project limits are outside of the FEMA 100 Year Floodplain. This project will not affect a FEMA designated floodplain.

2.2.2. Water Quality and Storm Water Runoff

Regulatory Setting

The primary federal law regulating Water Quality is the Clean Water Act. To ensure compliance with Clean Water Act, the State Water Resources Control Board (SWRCB) has issued Caltrans their own National Pollutant Discharge Elimination System (NPDES) permit. This statewide permit regulates storm water discharges from Caltrans' properties, facilities, and activities.

Federal regulations (40 CFR 122.26) require discharges of storm water associated with construction activity including clearing, grading, and excavation activities (except operations that result in disturbance of less than 1 acre (0.4 hectares) of total land area and which are not part of a common plan of development or sale) to obtain an NPDES Permit and to implement Best Management Practices (BMPs) that achieve the performance standards of Best Available Technology economically achievable/Best Conventional Pollutant control Technology (BAT/BAC) to reduce or eliminate storm water pollution.

Caltrans' NPDES permit meets the intent of the state's Construction General Permit (CGP) for construction activities and therefore Caltrans is not required to obtain coverage under the CGP for construction activities. With the exception of the Notice of Intent the Department's Construction Management Program shall be in compliance with the technical conditions of the CGP.

All projects that disturb 1 acre or more of soil are required to have a Caltrans approved Storm Water Pollution Prevention Plan (SWPPP). The SWPPP identifies construction activities that may cause pollutants in storm water and measures to minimize and avoid impacts to water quality. The SWPPP is prepared by the Contractor and is subject to approval from the Engineer. SWPPPs are prepared after award of contract and prior to the start of construction..

Affected Environment

The project resides in a foothill chaparral setting at an elevation range from 500 to 549 meters (1,640 to 1,800 feet) above mean sea level. Average annual precipitation ranges from 70.3 to 120.1 centimeters (27.7 to 47.3 inches). Within the project area, the two principal receiving waters are the North Fork of the Cosumnes River for most of the

project and Big Canyon Creek for the last 2/10 mile of at the north end of the project. The Cosumnes River and Big Canyon Creek are not listed as impaired for sediment.

Impacts

This project has little impact to water quality if avoidance and minimization practices are followed as mandated by the Department’s statewide NPDES permit.

CEQA Considerations

Less than significant impacts to water quality pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

In order to address Permit compliance, appropriate selection of both structural and non-structural control measures will be considered to reduce, to the extent practicable, the discharge of pollutants from the construction and operation of this project. Adherence to the following is recommended to ensure compliance with the terms of the NPDES Permit (Order No. 99-06-DWQ) and to prevent receiving water pollution as a result of construction activities and/or operation of this section of SR 49.

- The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 99-06-DWQ), issued by the State Water Resources Control Board.
- The contractor will be required to prepare a SWPPP containing effective erosion and sediment control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management and material pollution controls. It is generally accepted that practices that perform well by themselves can be complemented by other practices to raise the collective level of erosion control effectiveness and sediment retention.
- Standard Special Provision (SSP) 07-345 is a set of specifications used for projects that disturb more than one acre of soil. SSP 07-345 will be included in the construction specifications for this project and will clearly outline the contractor's responsibilities with respect to preparation and implementation of the SWPPP.

2.2.3. Geology/Soils/Seismic/Topography

This project will require grading of soil to adhere to design standards. Erosion control methods will be used to avoid additional loss of topsoil. There will be no geology, seismic, or topography impacts from this project.

CEQA Considerations

Less than significant impacts to soils pursuant to CEQA are anticipated.

2.2.4. Hazardous Waste/Materials

Regulatory Setting

Many state and federal laws regulate hazardous materials and hazardous wastes. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

Affected Environment

Caltrans Office of Environmental Engineering-South conducted an Initial Site Assessment (ISA) to determine the potential for encountering hazardous materials. The ISA found that:

- Aerially Deposited Lead (ADL) may be present in the soils that will be disturbed during the construction of this project.

Impacts

With the following avoidance and minimization measures in place, no impacts due to hazardous waste are anticipated.

Avoidance and Minimization Measures

- The contractor will prepare a Lead Compliance Plan.
- Lead awareness training will be provided to all personnel performing work in areas containing ADL.
- Excess material will be sampled and analyzed prior to exporting. If it is determined that surplus excavated material contains regulated or hazardous levels of lead, the material shall be handled and disposed of according to State and Federal laws.

2.2.5. Air Quality

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃) and particulate matter that is 10 microns in diameter or smaller (PM₁₀).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve Federal actions to support programs or projects that are not first found to conform to the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity is concerned with how well the region is meeting the standards set for the pollutants listed above. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would result in a violation of the Clean Air Act. If no violations would occur, then the

regional planning organization and the appropriate federal agencies make the determination that the RTP is in conformity with the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to be in conformity at the regional level.

Conformity at the project-level is also required. Again the pollutants of concern are: CO, NO₂, O₃ and PM₁₀. If a region is meeting the standard for a given pollutant, then the region is said to be in "attainment" for that pollutant. If the region is not meeting the standard, then it is designated a "non-attainment" area for that pollutant. Areas that were previously designated as non-attainment areas but have recently met the standard are called "maintenance" areas. If a project is located in a non-attainment or maintenance area for a given pollutant, then additional air quality analysis and reduction measures in regard to that pollutant is required. This is most frequently done for CO and PM₁₀.

Impacts-Regional

This project is exempt from regional air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) Section 93.126, subsection, "Safety."

Impacts-Local

A local (project-level CO) analysis was performed using the Caltrans Transportation Project-Level Carbon Monoxide Protocol, UCD-ITS-RR-97-21, by the Institute of Transportation Studies, UC Davis.

From Figure 3, Local CO Analysis and Section 4.7.1 of the above mentioned Protocol, this project:

- Does not significantly increase vehicles operating in cold start mode,
- Does not significantly increase traffic volumes,
- Does not worsen traffic flow.

Therefore, the proposed project is not likely to worsen air quality and no local (project-level CO) impacts are anticipated.

Impacts-Construction

The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM₁₀, would be the primary short-term construction impact that may be generated during excavation, grading and hauling activities. However, both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature. Caltrans Standard Specifications should effectively reduce and control emission impacts during construction.

Naturally occurring asbestos (NOA) is known to exist within serpentine, a greenish greasy-looking ultramafic rock. Based on the California Geologic Survey and National Resource Conservation Service (NRCS) soils map, some ultramafic rocks are found in the western part of El Dorado County. If NOA is found during construction, rules and regulation of the local air quality management district must be adhered to when handling this material.

CEQA Considerations

Less than significant impacts to air quality pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

- Caltrans Standard Specifications contain Section 7-1.01F, "Air Pollution Control," and Section 10, "Dust Control." These specifications require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district. These specifications, which are included in all construction contracts, should aid in reducing construction related air quality impacts.
- If NOA is found during construction, rules and regulation of the local air quality management district must be adhered to when handling this material.

2.2.6. Noise

Regulatory Setting

CEQA provides a broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment.

Affected Environment

From Title 23, Part 772 of the Code of Federal Regulations, "Procedures for Abatement of Highway Traffic Noise", and Caltrans' noise analysis policy described in Construction Noise and Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Protocol) (California Department of Transportation 1998a), noise mitigation/abatement must be considered for Type I projects.

A Type I project is defined by 23 CFR 772 as follows: A proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. A Memorandum issued October 20, 1998 by FHWA offers some guidance in defining Type I projects. In regards to the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment it offers that a small change in alignment in a densely developed urban area may be deemed to be significant, whereas a much greater change in alignment in a suburban or rural area may be deemed not to be significant. The use of judgment must be made on whether or not an alignment change is deemed to be significant.

The proposed project traverses a rural area. The scope includes no through-traffic lane additions, however it does include some moderate realignment. Based upon the projects' scope, context, and setting, the project is not considered a Type I project. No further noise analysis is required.

Impacts-Construction

During the construction phases of the proposed project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans standard specifications Section 7-1.01I, "Sound Control Requirements." These requirements state that noise

levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications.

CEQA Considerations

Less than significant impacts to noise pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

- Caltrans Standard Specifications contain Section 7-1.011, "Sound Control Requirements." These specifications require the contractor to comply with all local sound control and noise level rules, regulations and ordinances that apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler. These specifications, which are included in all construction contracts, should aid in reducing construction related noise impacts.

2.3. BIOLOGICAL ENVIRONMENT

2.3.1. Biological Setting

The dominant vegetation communities within the project area are blue oak woodland and valley-foothill grassland. The blue oak woodland is dominated by blue oaks, interior live oaks, scattered black oaks, foothill pines, with understory shrubs including toyon, buckeye, and tree of heaven. The valley-foothill grassland comprises most of the open areas within the project area and is composed primarily of annual grasses such as wild oat, soft chess, Italian ryegrass, rattail fescue, dogtail grass, medusa head grass, ripgut brome, and ruderal forbs such as Queen Anne's lace, Centuary, Spanish trefoil, bindweed, goatsbeard, and vetch.

An intermittent stream course parallels the project area on the west side of SR 49, referred to as "Logtown Creek" for the purposes of this document. Logtown Creek supports riparian vegetation and adjacent wetland vegetation. Woody vegetation along streamcourses in the project area is comprised primarily of Fremont cottonwood, California black walnut, and willows, with frequent blackberry shrubs. Rushes, pennyroyal, curly dock, clustered field sedge, prickly-fruit buttercup, water plantain, rabbitfoot grass, manna-grass, and willowherb dominate the slow water areas and wetlands adjacent to streamcourses. A number of small seep-supported wetland areas are located on the east side of SR 49. These areas are dominated by Baltic rush, clustered field sedge, and curly dock.

A list of species and habitats potentially occurring within the project vicinity was developed based on information compiled from the California Department of Fish and Game's (CDFG) Natural Diversity Data Base (CNDDDB Rarefind Database, 2003, Fiddletown, Placerville, Shingle Springs, Latrobe, Camino, and Aukum 7.5-minute USGS quads), the California Native Plant Society (CNPS), and from the current literature. A list of all sensitive species considered as part of this evaluation is included in Table 3. An expanded discussion is provided for species that could potentially occur in habitat within the project area, or that were detected within the project limits during field surveys.

Field surveys of the project site were conducted to assess existing natural resources and potential impacts. Emphasis was placed on the special status species that may occur. The project site was field reviewed to 1) identify habitat types; 2) identify potential wetlands; 3) identify factors indicating the potential for rare species; 4) identify rare species present; and 5) identify potential problems for the study.

TABLE 3: REGIONAL SENSITIVE SPECIES

Scientific Name	Common Name	Status	General Habitat Description	Potential to be Adversely Affected by Project
<i>Accipiter gentilis</i>	Northern Goshawk	FSC, SSC	Mature coniferous forests.	Low. Suitable nesting habitat not detected within project area.
<i>Acipenser medirostrus</i>	Green Sturgeon	FC, SSC	Anadromous. Spawning takes place in deep, fast water. Preferred spawning substrate is large cobble.	None. Appropriate aquatic habitat not available in project area. Outside of known range for species.
<i>Agelaius tricolor</i>	Tricolored Blackbird	FSC, SSC	Colonial nester. Breeding sites require open accessible water, a protected nesting substrate, and a suitable foraging space providing adequate insect prey.	Low. Suitable nesting habitat not detected within project area.
<i>Amphispiza belli belli</i>	Bell's Sage Sparrow	FSC, SSC	Breeds in chamise or sagebrush dominated chaparral.	Low. Suitable nesting habitat not detected within project area.
<i>Arctostaphylos nissenana</i>	Nissenan Manzanita	FSC, CNPS 1B	Closed-cone coniferous forest, chaparral.	None. Appropriate habitat not available within project area. Not detected during surveys.
<i>Athene cincularia hypugea</i>	Western Burrowing Owl	FSC, SSC	Burrow sites are in open dry grasslands, scrublands and deserts. Burrows in vacated mammal burrows.	Low. No suitable burrows or other sign of species detected in project area.
<i>Baeolophus inornatus</i>	Oak Titmouse	FSLC	Montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Calochortus clavatus avius</i>	Pleasant Valley Mariposa Lily	FSC, CNPS 1B	Lower montane coniferous forests, on Josephine silt loam and volcanic soils ELD, AMA, MAR counties.	None. Appropriate habitat and soils not available at project site. Not detected during surveys.
<i>Calystegia stebbinsii</i>	Stebbin's Morning Glory	FE, SE	Chaparral and woodland habitats on serpentine and gabbro soils in El Dorado and Nevada County.	None. Appropriate gabbro and serpentine soils not available at project site. Not detected during surveys.
<i>Carduelis lawrencei</i>	Lawrence's Goldfinch	FSC, SSC	Closely associated with oaks. Breeds in open oak or other arid woodland and chaparral, near water. Typical habitats include valley foothill hardwood, valley foothill, and hardwood-conifer.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Ceanothus roderickii</i>	Pine Hill Ceanothus	FE, SR, CNPS 1B	Chaparral and woodland habitats on serpentine and gabbro soils in El Dorado County.	None. Appropriate gabbro and serpentine soils not available at project site. Not detected during surveys.
<i>Chaetura vauxi</i>	Vaux's Swift	FSC, SSC	Breeds usually in forested habitat including, coastal redwood, and Douglas fir in inland sites in the north coast ranges. Nests in redwood, Douglas-fir, and occasionally other coniferous forests. Occasionally nests in chimneys and buildings.	Low. Suitable nesting habitat not detected within project area.
<i>Chlorogalum grandiflorum</i>	Red Hills Soaproot	FSC, CNPS 1B	Chaparral, cismontane woodland, lower montane coniferous forest, ultramafic soils, AMA, ELD, PLA, and TUO counties.	None, appropriate soils not available within project area, not detected during surveys.
<i>Cinclus mexicanus</i>	American dipper	FSC	Mountain streams.	Low. Suitable nesting habitat not detected within project area.
<i>Clemmys marmorata marmorata</i>	Northwestern Pond Turtle	FSC, SSC	Permanent or semi-permanent waters with available basking sites.	Moderate. Habitat available in project area. Species detected adjacent to project area

<i>Cypsooides niger</i>	Black Swift	FSC, SSC	Breeds very locally in Sierra/Cascades and coast ranges. Nests on cliffs adjacent to surf or waterfall.	Low. Suitable nesting habitat not detected within project area.
<i>Cyrtopodium fasciculatum</i>	Clustered Lady's Slipper	FSC, CNPS 1B	Lower montane coniferous forests, seeps and stream-banks, ultramafic soils.	None. Appropriate habitat and soils not available at project site. Not detected during surveys.
<i>Desmocerus californicus dimorphus</i>	Valley Elderberry Longhorn Beetle	FT	Occurs only in Central Valley of CA, in association with blue elderberry (<i>Sambucus mexicana</i>).	None. No elderberry bushes detected within project vicinity.
<i>Elanus leucurus</i>	White Tailed Kite	FSC, SSC	Breed in lowland grasslands, agriculture, wetlands, oak-woodland and savanna habitats, and riparian areas associated with open areas for foraging.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Empidonax tralii brewsteri</i>	Little Willow Flycatcher	FSC, SE	Meadows and woodlands with extensive willow thickets.	Low. Suitable nesting habitat not detected within project area.
<i>Euderma maculatum</i>	Spotted Bat	FSC, SSC	Day roosts primarily in crevices in cliff faces, primarily near winter.	Low. Areas appropriate for day or night roosts for cave, crevice, or structure roosting bats are not likely to be affected by the proposed project.
<i>Eumops perotis californicus</i>	Greater Western Mastiff Bat	FSC, SSC	Day roosts primarily crevices in cliff faces, and cracks in boulders, occasionally buildings.	Low. Areas appropriate for day or night roosts for cave, crevice, or structure roosting bats are not likely to be affected by the proposed project.
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	FSC	Breed in woodland, forest, and coastal habitats. Nesting sites are typically a scrape or a depression on ledges of large cliff faces.	Low. Suitable nesting habitat not detected within project area.
<i>Fremontodendron californicum decumbens</i>	Pine Hill Flannelbush	FE, SR, CNPS 1B	Rocky chaparral and woodland habitats on serpentine and gabbro soils in El Dorado and Nevada County	None. Appropriate gabbro and serpentine soils not available at project site. Not detected during surveys.
<i>Galium californicum sierrae</i>	El Dorado Bedstraw	FE, SR, CNPS 1B	Chaparral and woodland habitats on serpentine and gabbro soils in El Dorado County.	None. Appropriate gabbro and serpentine soils not available at project site. Not detected during surveys.
<i>Haliaeetus leucocephala</i>	Bald Eagle	FT	Coniferous forests near water.	Low. Suitable nesting habitat not detected within project area.
<i>Helianthemum suffrutescens</i>	Bisbee Peak Rush Rose	FSC, CNPS List 3	Chaparral, ultramafic or lone soils.	None. Appropriate soils not available at project site. Not detected during surveys.
<i>Horkelia parryi</i>	Parry's Horkelia	FSLC, CNPS 1B	Chaparral, woodlands (lone Formationsoils).	None. Appropriate soils not available at project site. Not detected during surveys.
<i>Hypomesus transpacificus</i>	Delta Smelt	FT	Range from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties. Spawn in tidally influenced backwater sloughs and channel edge-waters.	None. Appropriate aquatic habitat not available in project area. Outside of known range for species.
<i>Lanius ludovicianus</i>	Loggerhead Shrike	FSC, SSC	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Nests in dense trees or shrubs.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Martes pennanti pacifica</i>	Pacific Fisher	FC, SSC	Mature coniferous forests.	None. Appropriate habitat not available within project area.

<i>Melanerpes lewisii</i>	Lewis' Woodpecker	FSC	Occurs in deciduous and conifer habitats with brushy understory, and scattered snags and live trees for nesting and perching. Breeds along eastern slopes of the Coast Ranges, and in the Sierra Nevada, Warner Mts., Klamath Mts., and in the Cascade Range. Winters in the Central Valley, Modoc Plateau, and in southern California.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Myotis ciliolabrum</i>	Small Footed Myotis	FSC	Associated with forests, woodlands, and shrublands. Roosts have been found in cavities, such as mines and trees.	Moderate. Tree roosting bat species may be adversely affected by vegetation removal.
<i>Myotis evotis</i>	Long Eared Myotis	FSC	Associated with coniferous forests. Roosts in caves, mines, trees, crevices, buildings, and bridges.	Moderate. Tree roosting bat species may be adversely affected by vegetation removal.
<i>Myotis thysanodes</i>	Fringed Myotis	FSC	Day and night roosts in caves, mines, trees, buildings and rock crevices.	Moderate. Tree roosting bat species may be adversely affected by vegetation removal.
<i>Myotis volans</i>	Long Legged Myotis	FSC	Associated with woodlands. Day roosts primarily in hollow trees, particularly large diameter snags or live trees with lightning scars. Also uses rock crevices, mines, and buildings. Caves and mines may be used for night roosts.	Moderate. Tree roosting bat species may be adversely affected by vegetation removal.
<i>Myotis yumanensis</i>	Yuma Myotis	FSC	Associated with open forests near water. Day roosts in buildings, trees, mines, caves, bridges, and rock crevices. Night roosts usually associated with buildings, bridges, or other man-made structures.	Moderate. Tree roosting bat species may be adversely affected by vegetation removal.
<i>Nebria darlingtoni</i>	South Forks Ground Beetle	FSC	Rocky banks along cool streams in El Dorado County.	Low. Lack of suitable habitat on project site. Habitat available within 1 mile of project area.
<i>Numenius americanus</i>	Long Billed Curlew	FSC, SSC	Habitats include large coastal estuaries, upland herbaceous areas, and croplands. Breed on grazed, mixed-grass and shortgrass prairies.	Low. Suitable nesting habitat not detected within project area.
<i>Oncorhynchus tshawytscha</i>	Winter Run Chinook Salmon	FE	Sacramento River with clean, cold water, and gravel beds	None. Outside of known range for species due to downstream impoundments.
<i>Onochorynchus tshawytscha</i>	Chinook Salmon (Central Valley Spring Run ESU; Winter Run ESU; Central Valley fall/late fall ESU)	FT/FT/FC	Anadromous. Spawning generally occurs in mainstream or lower tributary channels in swift, relatively shallow riffles or along the edges of fast runs at depths greater than 24 cm in stream areas with suitable gravel composition.	None. Outside of known range for species due to downstream impoundments.
<i>Onochorynchus mykiss</i>	Steelhead (Central Valley ESU)	FT	Anadromous. Spawn in cool, clear streams featuring suitable water depth, gravel size, and current velocity. Intermittent streams may be used for spawning.	None. Outside of known range for species due to downstream impoundments.
<i>Otus flammuleus</i>	Flammulated Owl	FSC	Montane coniferous forest, yellow pine belt. Breeds in available cavities	Low. Suitable nesting habitat not detected within project area.
<i>Phrynosoma coronatum frontale</i>	California horned Lizard	FSC, SSC	Lowlands along sandy washes, with scattered low shrubs, woodland chaparral.	Low. Appropriate habitat is available within project vicinity. Project activity is unlikely to adversely impact species habitat.
<i>Picoides albolarvatus</i>	White Headed Woodpecker	FSC	Montane coniferous forests. Pine and fir belts 4,000 –9,000 ft elevation.	Low. Suitable nesting habitat not detected within project area.

<i>Picoides nutallii</i>	Nuttall's Woodpecker	FSLC	A common, permanent resident of low-elevation riparian deciduous and oak habitats.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Pogonichthys macrolepidotus</i>	Sacramento Splittail	FSC	Species now largely confined to the Delta, Suisun Bay, Suisun Marsh, Napa River, Petaluma River, and other parts of the Sacramento-San Joaquin estuary. Require flooded vegetation for spawning and as foraging areas for young.	None. Appropriate aquatic habitat not available in project area. Outside of known range for species.
<i>Rana boylei</i>	Foothill Yellow Legged Frog	FSC, SSC	Requires shallow, flowing water, preferentially in small to moderate-sized streams situations with at least some cobble-sized substrate.	Moderate. Appropriate habitat located adjacent to project area. Project measures to minimize impacts to aquatic areas.
<i>Rana aurora draytoni</i>	California Red-Legged Frog	FT	Permanent and semi permanent ponds and streams below 4,000 feet.	Low. Appropriate habitat located in project vicinity. Project measures to minimize impacts to aquatic areas.
<i>Riparia riparia</i>	Bank Swallow	FSC, ST	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam.	Low. Suitable nesting habitat not detected within project area.
<i>Selasphorus rufus</i>	Rufus Hummingbird	FSC	Valley foothill hardwood, valley foothill hardwood-conifer, riparian, chaparral, montane riparian, aspen, and high mountain meadows.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Senecio laynae</i>	Layne's Ragwort	FT, SR, CNPS 1B	Chaparral and cismontane woodland on ultramafic soils.	None. Appropriate gabbro and serpentine soils not available at project site. Not detected during surveys.
<i>Spea hammondi</i>	Western Spadefoot Toad	FSC, SSC	Breeds in seasonal wetlands.	Moderate. Appropriate aquatic habitat available in project area.
<i>Spirinchus thaleichthys</i>	Longfin Smelt	FSC, SSC	Occupy the middle or bottom of the water column in the salt or brackish water portions of estuaries. Present in the Sacramento-San Joaquin estuary, Humboldt Bay, the Eel River estuary, and the Klamath River estuary.	None. Appropriate aquatic habitat not available in project area. Outside of known range for species.
<i>Strix occidentalis occidentalis</i>	California Spotted Owl	FSC, SSC	Mature coniferous forests. Nests in available cavities.	Low. Suitable nesting habitat not detected within project area.
<i>Toxostoma redivivum</i>	California Thrasher	FSC	A common resident of foothills and lowlands in cismontane California. Occupies moderate to dense chaparral habitats and, less commonly, extensive thickets in young or open valley foothill riparian habitat. Avoids dense tree canopy.	Moderate. Suitable nesting habitat in project vicinity will be affected. Project measures to comply with MBTA.
<i>Wyethia reticulata</i>	El Dorado Mule's Ears	FSC, CNPS 1B	Chaparral, cismontane woodland, lower coniferous forest, clay or ultramafic soils.	None. Appropriate soils not available at project site. Not detected during surveys.

FC, FE, FT: Federal Candidate, Federal Endangered, Federal Threatened

FP, FPE, FPT: Federal Proposed, Federal Proposed Endangered, Federal Proposed Threatened

FSC: Federal Species of Concern

FSLC: Federal Species of Local Concern

SE: State Endangered

SR: State Rare

SSC: State Species of Special Concern

ST: State Threatened

CNPS: California Native Plant Society, 1B: Rare, threatened and endangered in California and elsewhere

List 3: Plants about which we need more information/a review list. List 4: Plants of limited distribution/a watch list.

2.3.2. Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the CDFG and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

Portions of Logtown Creek and its associated tributaries and adjacent wetlands will be affected by the construction of the proposed project.

Impacts

Direct impacts to waters of the U.S. are expected to occur as a result of fill used for grading for the curve realignment, shoulder widening, culvert extension/replacement and drainage realignment. Direct impacts to jurisdictional wetlands and other special aquatic sites are expected to occur as a result of fill used for grading for the curve realignment, and shoulder widening. Indirect impacts to jurisdictional wetlands and other aquatic sites are expected to occur as a result of flooding, excavation, or drainage. Table 4 below summarizes the extent of impacts to Waters of the United States, including wetlands.

TABLE 4: IMPACTS TO WATERS OF THE UNITED STATES

Resource	Area of Permanent Direct Impact	Permanent Fill Below OHWM	Area of Indirect Impact
Waters of the U.S.	0.177 ha (0.438 acre)	147.00 m ³ (192.28 yd ³)	0.000 ha (0.000 acre)
Jurisdictional Wetlands and Other Special Aquatic Sites	0.208 ha (0.515 acre)	0.00 m ³ (0.00 yd ³)	0.180 ha (0.444 acre)
TOTAL JURISDICTIONAL WATERS	0.386 ha (0.953 acre)	147.00 ha (192.28 yd³)	0.180 ha (0.444 acre)

CEQA Considerations

With mitigation, less than significant impacts to waters of the U.S. pursuant to CEQA are anticipated.

Avoidance, Minimization and Measures

To minimize impacts to waters and wetlands as a result of project construction, Caltrans and its contractors will implement the following measures:

- Project construction activities within aquatic features will not take place until there is a no-flow or no-surface water condition in all aquatic features in the project area.
- All waters and wetlands adjacent to the construction zone that will not be filled as a result of the project will be designated as environmentally sensitive areas (ESAs), and shall be fenced and signed to assure no inadvertent damage to these resources. Best management practices will be followed to minimize erosion and reduce sediments from entering channels and wetlands. All disturbed areas will be replanted upon completion of construction to stabilize soils. The Caltrans biologist will consult with the Caltrans archaeologist, Caltrans architectural historian and appropriate resource agencies to determine the final placement of ESA exclusion fencing.
- The proposed project will impact jurisdictional waters of the United States and as such will require the a Clean Water Act section 404 permit from the Army Corps of Engineers and a section 401 Water Quality Certification from the California Regional Water Quality Control Board. Because the work will take place below the top of the streambank, a 1602 Streambed Alteration Agreement will be required from CDFG. Conditions of these permits will include timing restrictions (work during no-flow periods, typically a June 15th to October 1st) to avoid water quality and species

related impacts, and the restoration of native riparian vegetation impacted by project construction.

- Waters and wetlands impacts will be mitigated through a combination of on-site wetland creation, restoration, revegetation, and enhancement, and the purchase of credits at an approved mitigation bank, subject to review and approval by the USACE, USFWS, CDFG, and the Central Valley RWQCB during project permit application review and approval.

2.3.3. Plant Species

Regulatory Setting

The USFWS and CDFG share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section in this document for detailed information regarding these species.

This section of the document discusses all other special-status plant species, including CDFG fully protected species and species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et. seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et. seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

Nissenan Manzanita (*Arctostaphylos nissenana*) FSC, CNPS 1B
Pleasant Valley Mariposa Lily (*Calochortus clavatus avius*) FSC, CNPS 1B
Stebbin’s Morning Glory (*Calystegia stebbinsi*) FE, SE, CNPS 1B
Pine Hill Ceanothus (*Ceanothus roderickii*) FE, SR, CNPS 1B
Red Hills Soaproot (*Chlorogalum grandiflorum*) FSC, CNPS 1B
Clustered Lady’s Slipper Orchid (*Cypripedium fasciculatum*) FSC, CNPS 1B
Pine Hill Flannel Bush (*Fremontodendron californicum decumbens*) FE, SR, CNPS 1B
EI Dorado County Bedstraw (*Galium californicum sierrae*) FE, SR, CNPS 1B
Bisbee Peak Rush Rose (*Helianthemum suffrutescens*) FSC, CNPS List 3
Parry’s Horkelia (*Horkelia parryi*) FSLC, CNPS 1B
Layne’s Ragwort (*Senecio laynae*) FT, SR, CNPS 1B
EI Dorado County Mule’s Ears (*Wyethia reticulata*) FSC, CNPS 1B

None of the State or Federally listed or rare plant species that were assessed for the project was detected during botanical surveys conducted in the 2005 season. Specific soil or habitat types that support these species were also not detected, and therefore the rare plant species listed above are not expected to occur within or adjacent project area.

2.3.4. Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The USFWS, the National Marine Fisheries Service (NMFS) and the CDFG are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species section. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NMFS candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

Affected Environment

INSECTS

South Forks Ground Beetle (*Nebria darlingtoni*) FSC

Due to the lack of suitable habitat, the proposed project will have no affect on this species.

FISHES

Sacramento Splittail (*Pogonichthys macrolepidotus*) FSC

Longfin Smelt (*Spirinchus thaleichthys*) FSC, SSC

Due to the project area being outside the range of the species and the lack of suitable habitat, the proposed project will have no affect on these species.

BIRDS

Northern Goshawk (*Accipiter gentilis*) FSC, SSC

Tricolored Blackbird (*Agelaius tricolor*) FSC, SSC

Bell's Sage Sparrow (*Amphispiza belli belli*) FSC, SSC

Western Burrowing Owl (*Athene cincularia hypugea*) FSC, SSC

Vaux's Swift (*Chaetura vauxi*) FSC, SSC

American Dipper (*Cinclus mexicanus*) FSC

Black Swift (*Cypsooides niger*) FSC, SSC

Little Willow Flycatcher (*Empidonax tralii brewsteri*) FSC, SE

American Peregrine Falcon (*Falco peregrinus anatum*) FSC

Long Billed Curlew (*Numenius americanus*) FSC, SSC

Flammulated Owl (*Otus flammuleus*) FSC

White Headed Woodpecker (*Picoides albolarvatus*) FSC

Bank Swallow (*Riparia riparia*) FSC, ST

California Spotted Owl (*Strix occidentalis occidentalis*) FSC, SSC

Due to the project area being outside the range of the species, the lack of suitable habitat, the lack of detection during recent surveys or because the project would not harm individuals or alter the species' habitat, the proposed project will have no effect on these species.

Oak Titmouse (*Baeolophus inornatus*) FSLC

Lawrence's Goldfinch (*Carduelis lawrencei*) FSC, SSC

White Tailed Kite (*Elanus leucurus*) FSC, SSC

Loggerhead Shrike (*Lanius ludovicianus*) FSC, SSC

Lewis' Woodpecker (*Melanerpes lewisii*) FSC

Nuttall's Woodpecker (*Picoides nuttalli*) FSLC

Rufous Hummingbird (*Selasphorus rufus*) FSC

California Thrasher (*Toxostoma redivivum*) FSC

Suitable nesting for the above species is present within the project area. These species are protected by the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711).

Impacts

The removal of 3.05 ha (7.53 acres) of mature woody vegetation is required for the construction of the proposed project. This vegetation is likely to support reproducing migratory birds during the nesting season (March 1st to September 1st). The removal of woody vegetation could affect nesting birds, however, the restriction of the timing of vegetation removal and protective buffers around known nest sites are expected to avoid adverse affects to populations of nesting birds. Construction noise and activities within the project area may also temporarily disrupt normal foraging or movement patterns of migratory birds within the project vicinity, but is unlikely due to the proximity of the project site to the highway system. If possible, woody vegetation removal will be conducted outside of the expected nesting season for migratory birds in this area, between September 1st and March 1st prior to the construction season,

CEQA Considerations

Less than significant impacts to birds pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

The following measures are recommended to reduce project impacts on bird species:

- Minimize removal of native vegetation by locating staging areas and access routes in previously disturbed areas;
- Removal of vegetation should be conducted in the fall and winter (between September 15 and March 1) after fledging and before the initiation of breeding activities;
- If vegetation removal during non-nesting season is determined unfeasible, then pre-construction bird surveys shall be performed in spring to determine the location of nest sites within the project area. A 92 m (300 ft) buffer zone shall be established between active passerine nests and any project construction activity, and a 150 m

(500 ft) buffer zone between active raptor nests and any project construction activity, unless CDFG permits a reduced buffer zone based on nesting phenology and recommendation(s) of a biological monitor.

- A revegetation/habitat restoration plan shall be implemented to address short-term disturbance and long-term losses of potential nesting areas.

BATS

Spotted Bat (*Euderma maculatum*) FSC, SSC

Greater Western Mastiff Bat (*Eumops perotis californicus*) FSC, SSC

Due to the project area being outside the range of the species, the lack of suitable habitat, the lack of detection during recent surveys or because the project would not harm individuals or alter the species' habitat, the proposed project will have no effect on these species.

Small Footed Myotis (*Myotis ciliolabrum*) FSC

Long Eared Myotis (*Myotis evotis*) FSC

Fringed Myotis (*Myotis thysanodes*) FSC

Long Legged Myotis (*Myotis volans*) FSC

Yuma Myotis (*Myotis yumanensis*) FSC

In addition to bat species listed as sensitive by the resource agencies, state laws protect bats and their occupied roosts from harassment and destruction. Protection under California Law is found in the Fish Game code Section 2000, 2002, 2014 and 4150, and under California Code of Regulations section 251.1.

Several species of bats require trees as daytime roosts, and several other species day roost in trees occasionally or use trees as important night roosts. It is anticipated that tree roosting bats may use the forested areas within the project area.

Impacts

The removal of 3.05 ha (7.53 acres) of mature woody vegetation is required for the construction of the proposed project. This vegetation is likely to possess appropriate structures for use as a bat day roost (exfoliating bark, cavities, or fissures) for tree roosting bats, and may also be used as a temporary night roosts. The removal of woody vegetation is likely to adversely affect tree roosting bats, however, the restriction of the timing of vegetation removal and protective buffers around known roost sites are expected to avoid adverse effects to populations of tree roosting bats. Populations of tree roosting bats in the project area are also likely to experience additional "temporal" impacts to potential roost sites until post-construction revegetation activities have produced trees large enough to provide appropriate roosting structures for bats.

Construction noise and activities within the project area may also temporarily disrupt normal foraging or movement patterns within the project vicinity, but is unlikely due to the proximity of the project site to the highway system. If possible, woody vegetation removal will occur prior to the construction season between September 1st and March 1st, when many bat species are less likely to be within the project area due to migration or seasonal movements. This will minimize adverse impacts to tree roosting bats.

CEQA Considerations

Less than significant impacts to bats pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

- Minimize removal of native vegetation by locating staging areas and access routes in previously disturbed areas;
- Removal of vegetation should be conducted in the fall and winter (between September 15 and March 1).

MAMMALS

Pacific Fisher (*Martes pennanti pacifica*) FC, SSC

Due to the lack of suitable habitat, the proposed project will have no effect on this species.

AMPHIBIANS

Foothill Yellow Legged Frog (*Rana boylei*) FSC, SSC

In California, the foothill yellow-legged frog (FYLF) was historically distributed throughout the foothill portions of most drainage from the Oregon border to the San Gabriel River. The FYLF requires shallow, flowing water, preferring small to moderate-sized streams. Foothill yellow-legged frogs are infrequent or absent in habitats where introduced aquatic predators (i.e., various fishes and bullfrogs) are present, probably because their aquatic developmental stages are susceptible to such predators.

Impacts

Direct impacts to foothill yellow-legged frogs (FYLF) are not expected to occur. The FYLF may be indirectly affected by work within aquatic features in the project area. Approximately 0.386 ha (0.953 acre) of “waters of the United States” and wetlands (as defined by the USACE) will be directly impacted as a result of the proposed project. Although aquatic features capable of supporting breeding FYLFs occur within and adjacent to the project area (Logtown Creek), no occurrences for FYLFs have been recorded within one mile of the project area, and no FYLF adults, eggs, or larvae were detected during surveys conducted during the 2005 season. Furthermore, project construction activities within aquatic features will not take place until there is a no-flow or no-surface water condition. Best Management Practices (BMPs) and habitat restoration will reduce impacts to the FYLF.

CEQA Considerations

Less than significant impacts to foothill yellow-legged frogs pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

- Work within aquatic features shall not take place until there is a no-flow or no-surface water condition.

Western Spadefoot Toad (*Spea hammondi*) FSC, SSC

Although seasonal aquatic features capable of supporting breeding western spadefoot toads occur within and adjacent to the project area, no occurrences for western spadefoot toad have been recorded in El Dorado County, and no western spadefoot toad adults, eggs, or larvae were detected during surveys conducted during the 2005 season. No impacts to the western spadefoot toad are expected to occur.

REPTILES

Northwestern Pond Turtle (*Clemmys marmorata marmorata*) FSC, SSC

In California, the northwestern pond turtle was historically present in most Pacific slope drainages between the Oregon and Mexican borders. The northwestern pond turtle is an aquatic turtle that usually leaves the aquatic site to reproduce, to aestivate, and to overwinter. Northwestern pond turtles require some slack- or slow-water aquatic habitat. They are uncommon in high gradient streams probably because water temperatures, current velocity, food resources, or any combination thereof may limit their local distribution. Habitat quality seems to vary with the availability of aerial and aquatic basking sites.

Impacts

Direct impacts to the northwestern pond turtle are not expected to occur. The northwestern pond turtle may be indirectly affected by work within aquatic features in the project area. Approximately 0.386 ha (0.953 acre) of “waters of the United States” and wetlands (as defined by the USACE) will be directly impacted as a result of the proposed project. Aquatic features capable of supporting northwestern pond turtle occur within and adjacent to project area (Logtown Creek), and northwestern pond turtles were detected at several locations within 2.01 kilometers (1.25-miles) of the project area during the 2005 season. Project construction activities within aquatic features will not take place until there is a no-flow or no-surface water condition. Best Management Practices (BMPs) and habitat restoration will reduce impacts to the northwestern pond turtle.

CEQA Considerations

Less than significant impacts to northwestern pond turtles pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

- Work within aquatic features shall not take place until there is a no-flow or no-surface water condition.

California Horned Lizard (*Phrynosoma coronatum frontale*) FSC, SSC

The California horned lizard has a spotty distribution from Kennett (now under Lake Shasta, Shasta County) southward along the edges of the Sacramento Valley into much of the South Coast Ranges, San Joaquin Valley, and Sierra Nevada foothills to northern Los Angeles, Santa Barbara and Ventura counties, California. The California horned lizard seems to occur in several habitat types, including areas with an exposed gravelly-sandy substrate containing scattered shrubs, floodplains and dry lake beds, clearings in riparian woodlands, dry uniform chamise chaparral to annual grassland with scattered perennial seepweed or saltbush.

Impacts

Direct impacts to the California horned lizard are not expected to occur. The California horned lizard may be indirectly affected by earthwork during the construction of the proposed project. Although some landscape features capable of supporting breeding California horned lizards occurs within and adjacent to the project area (basking sites, openings in woodland, mammal burrows, etc.), the project area generally lacks areas of loose, sandy soils that are preferred for foraging and for constructing “egg nests.” No occurrences of California horned lizards been recorded within four miles of the project area, and no California horned lizards were detected during surveys conducted during

the 2005 season. BMPs and habitat restoration will reduce impacts to the California Horned lizard.

CEQA Considerations

Less than significant impacts to the California horned lizard pursuant to CEQA are anticipated.

2.3.5. Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): United States Code (USC), Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the FHWA, are required to consult with the USFWS and the National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The CDFG is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

AMPHIBIANS

California Red Legged Frog (*Rana aurora draytonni*) FT

The historic range of the California red-legged frog (CRLF) extended along the coast from the vicinity of Point Reyes National Seashore, Marin County, California and inland from the vicinity of Redding, Shasta County, California, southward to northwestern Baja California, Mexico. This range encompassed 46 counties, but the species has been extirpated from 24 of those counties. CRLF now exists within isolated and fragmented populations, and are mostly restricted to the central coastal area of California. The species is locally abundant within portions of the San Francisco Bay area (including Marin County) and the central coast. Within the Sierra Nevada Range, there are currently four extant populations of CRLF. These include populations in Butte, Yuba,

Placer, and El Dorado counties. CRLF are known to occur approximately 15 miles from the project area.

CRLFs use a variety of habitat types, including various aquatic, riparian, and upland habitats. They include, but are not limited to, ephemeral ponds, intermittent streams, seasonal wetlands, springs, seeps, permanent ponds, perennial creeks, manmade aquatic features, marshes, dune ponds, lagoons, riparian corridors, blackberry thickets, nonnative annual grasslands, and oak savannas. Among the variety of habitats where California red-legged frogs have been found, the only common factor is association with a permanent or semi-permanent water source. CRLF can use virtually any aquatic system, provided a permanent water source, ideally free of nonnative predators, is nearby. CRLF also occur in dense growths of riparian woodland or marshland dominated by willow, cattail, and bulrush.

Impacts

Direct and indirect impacts to CRLF are possible, but are unlikely to occur. Approximately 0.386 ha (0.953 acre) of “waters of the United States” and wetlands (as defined by the USACE) will be directly impacted as a result of the proposed project. CRLF were not detected within the project area, and no CRLF were detected in accessible areas within 2.01 kilometers (1.25-miles) of the project area during surveys conducted in the 2005 season. Within the project area, aquatic features capable of maintaining water throughout the entire CRLF tadpole-rearing season are not available. Upland shelter and foraging habitats within 300 feet of potential breeding ponds are also absent. No records of breeding CRLF exist within 5 miles of the project area and no records of individual CRLF have been recorded within 5 miles of the project area since 1961. Recent protocol surveys conducted for the U.S. Highway 50/Missouri Flat Road Interchange, Placerville Home Depot Project, Hangtown Creek Bridge and Sewer Project, and the Western Placerville Interchange Project (all within 9.7 kilometers [6.0 miles] of the project area) did not detect CRLF.

The proposed project has been designed to avoid as much of Logtown Creek as feasible. Project construction activities within all aquatic features will not take place until there is a no-flow or no-surface water condition. No new barriers to CRLF dispersal (additional roads, removal of culverts, placement of additional structures) will be implemented as part of this project (short retaining walls may be implemented along the steepest cut slopes, but are proposed in areas that are currently steep cut slopes). BMPs and habitat restoration will reduce impacts to the CRLF. Due to the potential to affect the CRLF, a federally listed species, consultation with the USFWS is necessary in accordance with legal requirements set forth under section 7 of the Federal Endangered Species Act (FESA; 19 U.S.C. 1536c). A Biological Assessment (BA) was submitted to the USFWS and Caltrans is consulting with USFWS to determine the level of impact to the CRLF.

CEQA Considerations

Less than significant impacts to the California red-legged frog pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

- Work within aquatic features shall not take place until there is a no-flow or no-surface water condition.

INSECTS

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) FT

Due to the lack of detection during recent surveys, the proposed project will have no affect on this species.

FISHES

Delta Smelt (*Hypomesus transpacificus*) FT

Central Valley Steelhead (*Onchorynchus mykiss*) FT

Central Valley Spring-Run Chinook Salmon (*Onchorynchus tshawytscha*) FT

Winter-Run Chinook Salmon (*Oncorhynchus tshawytscha*) FE

Green Sturgeon (*Acipenser medirostrus*) FC, SSC

Due to the project area being outside the range of the species and the lack of suitable habitat, the proposed project will have no affect on these species.

BIRDS

Bald Eagle (*Haliaeetus leucocephala*) FT

Due to the lack of suitable habitat, the proposed project will have no affect of this species.

MAMMALS

Pacific Fisher (*Martes pennanti pacifica*) FC, SSC

Due to the lack of suitable habitat, the proposed project will have no affect on this species.

2.3.6. Invasive Species

Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." FHWA guidance issued August 10, 1999 directs the use of the state's noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

Affected Environment

Based on botanical surveys and review of these reports, the following invasive species occur within the project area: yellow star-thistle (*Centaurea solstitialis*), field bindweed (*Convolvulus arvensis*), Himalayan blackberry (*Rubus discolor*), and medusa-head (*Taeniatherum caput-medusae*).

Impacts

There is the potential for invasive species to be spread. The use of avoidance and minimization measures will reduce the risk of introducing additional non-native species to the area.

CEQA Considerations

Less than significant impacts due to invasive species pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

- No dry-farmed straw will be used and certified weed-free straw shall be required where erosion control straw is to be used.
- Hydro-seed mulch or any other erosion control application must also be certified weed-free.
- If a revegetation seed mix is to be used, the mix shall also be certified weed-free and contain native species appropriate for the project area.
- All off-road equipment shall be cleaned of potential noxious weed sources (mud, vegetation) before entry into the project area, to help ensure noxious weeds are not introduced into the project area.
- The contractor shall employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds.
- Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.

2.3.7. Vegetation/Oak Woodlands

Regulatory Setting

Senate Concurrent Resolution #17 requests all state agencies having land use planning duties and responsibilities to undertake to assess and determine the effects of their land use decisions or actions within any oak woodlands, that may be affected by their decisions or actions. The measure requests those state agencies to undertake, in the performance of their duties and responsibilities, measures to preserve and protect native oak woodlands to the maximum extent or provide for replacement plantings where designated oak species (Blue, Engleman, Valley, and Coast Live Oaks) are removed from oak woodlands (a five-acre circular area containing five or more oak trees per acre).

Affected Environment

Direct effects to native woody vegetation were quantified from aerial photography (and confirmed in the field) by measuring the area of canopy coverage provided by each tree/shrub or stand of trees/shrubs that are proposed to be removed during project construction. Indirect effects to native trees and shrubs adjacent to proposed cut and fill slopes are also possible. A number of trees and shrubs are located very close to the proposed limits of cut and fill. Damage to the root systems of this vegetation may occur due to soil compaction during fill activities or due to direct root damage during cut activities. Trees and shrubs that may be indirectly impacted were considered to be directly impacted for the purposes of this analysis and for determining revegetation amounts.

Impacts

Approximately 3.92 ha (9.69 acres) of interior live oak woodland and 0.71 ha (1.76 acres) of valley-foothill riparian woodland occur within the project area. The loss of interior live oak woodland and valley foothill riparian woodland habitat is summarized in Table 5. Construction activities and the requirement for a "Clear Recovery Zone (CRZ)" within the new right of way would necessitate removal and loss of portions of the interior live oak and valley-foothill riparian woodland habitat within the project area.

TABLE 5: VEGETATION REMOVAL IMPACTS

Resource	Amount in Project Area	Area of Adverse Impact
Interior Live Oak Woodland	3.92 ha (9.69 acre)	2.55 ha (6.29 acre)
Valley-Foothill Riparian Forest	0.71 ha (1.76 acres)	0.50 ha (1.24 acre)
TOTAL VEGETATION REMOVAL		3.05 ha (7.53 acre)

CEQA Considerations

Less than significant impacts to vegetation and oak woodlands pursuant to CEQA are anticipated.

Avoidance and Minimization Measures

The measures outlined in Section 2.1.7, "Visual/Aesthetics-Avoidance, Minimization and Mitigation Measures" will reduce the impacts to vegetation and oak woodlands.

2.4. CUMULATIVE IMPACTS

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines.

Affected Environment

Caltrans internal files were reviewed for information about recent and current projects within and adjacent to the proposed project. Additionally, Caltrans "State Route Transportation Concept Reports (TCRs)" were reviewed for information regarding future plans for state routes within the project vicinity. Caltrans' TCRs document the planning strategies of the long range plans identified by the regional transportation agencies and metropolitan transportation organizations within a given state highway corridor, and establishes a 20-year planning concept. As state highway routes often pass through several regional planning agency jurisdictions, the TCR assimilates the regional strategies into one corridor specific planning document.

Caltrans' "State Route 49 Transportation Concept Report (Caltrans, 1990)" breaks SR 49 into 12 segments, two of which occur within the project vicinity. Segment 1 is currently a two lane conventional highway extending 9.8 miles from the Amador / El Dorado County line to the town of El Dorado. Future route concept improvements identified for this segment in Caltrans' TCR include rehabilitation as necessary to repair storm damage and to achieve minor operational and safety improvements providing level of service (LOS) "D", such as widened shoulders, left turn lanes, and passing lanes, as necessary.

Segment 2 is currently a two lane conventional highway extending 4.7 miles from the town of El Dorado to the town of Placerville. Near-future route concept improvements identified for this segment in Caltrans' TCR include rehabilitation as necessary to repair storm damage and to achieve minor operational and safety improvements, as in segment 1. Due to population growth along this segment, the future "concept facility" for

this segment is a re-aligned 4-lane expressway. As of this document no “Route Adoption Study” or any other planning efforts have been made to implement the future concept facility, and this concept facility is not likely to be implemented before the current SR 49 TCR is outdated (2010).

The proposed project is being constructed to address safety concerns and the high rate of vehicle accidents along this stretch of SR 49. The project does not incorporate features that will increase the level of service or capacity of the highway. There are no plans for new facilities or capacity increasing operational improvement projects for SR 49 within the project area. In addition, the project area has been disturbed by rural development including public and private roads and residences. These developments are likely to be retained in the future.

Impacts-Farmland

According to the California Department of Conservation’s Farmland Mapping and Monitoring Program, El Dorado County lost 335 ha (828 acres) of “important farmland” (Prime, Unique, or Farmland of Statewide or Local Importance) between 2002 and 2004. This represents a loss of 1.3 percent of the County’s total supply of “important farmland.” While this is a perceptible impact to the supply of farmlands, the data do not suggest that farmland as a resource is in jeopardy: grazing land and important farmland represent nearly half of the land in the county. No cumulative impacts to farmland are expected.

Impacts-Biological Resources

The proposed project is not expected to result in significant cumulative impacts to biological resources because project related impacts are expected to be minor in scale. Avoidance and minimization measures, such as work windows, shall be implemented to reduce impacts and therefore will reduce cumulative impacts.

The removal of oak woodland and riparian vegetation adjacent to SR 49 may significantly contribute to adverse cumulative impacts to wildlife species, including migratory birds and special status species, however losses of oak woodland and riparian vegetation will be temporary, and avoidance, minimization, and mitigation measures shall be implemented to reduce impacts and therefore cumulative impacts. Onsite revegetation is planned for this project. By observing these measures, the cumulative loss of woody vegetation caused by this project, in combination with the losses incurred from other past, present, and potential future projects, is not expected to result in significant permanent cumulative impacts to wildlife.

CEQA Considerations

Less than significant cumulative impacts pursuant to CEQA are anticipated.

CHAPTER 3. LIST OF PREPARERS AND TECHNICAL STUDIES

The following people assisted in preparing and evaluating this Initial Study/ Environmental Assessment and coordinating documents:

Jennifer Clark	Associate Environmental Planner
Joan Fine	Associate Environmental Planner, Architectural History
John Holder	Transportation Engineer, Water Quality
Jeremy Ketchum	Senior Environmental Planner, S1 Branch Chief
Jason Meigs	Associate Environmental Planner, Biology
Mark Melani	Environmental Engineer, Hazardous Waste
Aaron McKeon	Associate Environmental Planner, Community Resources
Christine Ottaway	Landscape Associate
Kendall Schinke	Associate Environmental Planner, Archaeology
Ben Tam	Transportation Engineer, Air and Noise
Sharon Tang	Transportation Engineer, Air and Noise
Judy Tordoff	Associate Environmental Planner, Archaeology

The following technical reports were prepared in order to analyze the potential affects this project may have on the environment and to assist in preparing this Initial Study/ Environmental Assessment. These documents are available for review Caltrans North Region Office of Environmental Management, 2389 Gateway Oaks Drive, Sacramento, CA 95833.

Floodplain Analysis
Historic Property Survey Report
Initial Site Assessment for Hazardous Waste
Natural Environment Study
Air Quality, Noise and Energy Evaluation
Water Quality Assessment
Visual Impact Assessment
Community Impact Assessment

CHAPTER 4. PUBLIC REVIEW

A Public Workshop was held on October 26, 2005 at the El Dorado Union High School District Boardroom in Placerville. Project mapping and information were displayed and Caltrans staff were available for questions. In general, there was support for the project. Concerns were raised regarding farming which have been discussed in Section 2.1.3, Farmlands.

This Initial Study will be sent to the following parties for review and comments:

Affected Property Owners and Businesses

Department of Conservation

El Dorado County Agricultural Commissioner

El Dorado County Board of Supervisors

El Dorado County Clerk Recorder

El Dorado County Department of Transportation

El Dorado County Main Library in Placerville and the Oak Ridge High School Library (to make available for public review)

El Dorado County Planning Services

El Dorado County Transportation Commission

State Clearinghouse (to be distributed to various state agencies)

Public workshop attendees

Miwok Tribe of the El Dorado Rancheria

Ione Band of Miwok Indians

El Dorado County Museum

El Dorado County Pioneer Cemeteries Commission

Susie Mickus

Don Douglas

APPENDIX A. CEQA CHECKLIST

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The CEQA impact levels include potentially significant impact, less the significant impact with mitigation incorporation, less than significant impact, and no impact. Please refer to the following for detailed discussions regarding impacts:

CEQA:

- Guidance: Title 14, Chapter 3, California Code of Regulation, Sections 15000 et seq. (http://www.ceres.ca.gov/topic/env_law/ceqa/guidelines/)
- Statutes: Division 13, California Public Resource Code, Sections 21000-21178.1 (http://www.ceres.ca.gov/topic/env_law/ceqa/stat/)

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

AESTHETICS - Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

AGRICULTURE 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

BIOLOGICAL RESOURCES - Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

CULTURAL RESOURCES - Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

GEOLOGY AND SOILS - Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

- 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?

HAZARDS AND HAZARDOUS MATERIALS -

Would the project:

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

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

HYDROLOGY AND WATER QUALITY – Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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, which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

LAND USE AND PLANNING - Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

MINERAL RESOURCES - Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

NOISE - Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

- 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?

POPULATION AND HOUSING - Would the project:

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

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 public services:

- a) Fire protection?
- b) Police protection?
- c) Schools?
- d) Parks?
- e) Other public facilities?

RECREATION -

- 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?

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

TRANSPORTATION/TRAFFIC - Would the project:

- a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
- b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
- 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?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
- e) Result in inadequate emergency access?
- | | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
- f) Result in inadequate parking capacity?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
- g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

UTILITIES AND SERVICE SYSTEMS - Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
- 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?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
- 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?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

CEQA			
Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporation	Less Than Significant Impact	No Impact

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

MANDATORY FINDINGS OF SIGNIFICANCE -

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

APPENDIX B. FORM AD-1006

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request			
Name Of Project EI Dorado 49 (Logtown)		Federal Agency Involved FHWA			
Proposed Land Use Highway		County And State EI Dorado, CA			
PART II (To be completed by NRCS)		Date Request Received By NRCS			
Does the site contain prime, unique, statewide or local important farmland? <i>(If no, the FPPA does not apply -- do not complete additional parts of this form).</i>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated 0	Average Farm Size 116 acres
Major Crop(s) Grazing	Farmable Land In Govt. Jurisdiction Acres: 117,000 %			Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		13.0			
B. Total Acres To Be Converted Indirectly		0.0			
C. Total Acres In Site		13.0	0.0	0.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		0.0			
B. Total Acres Statewide And Local Important Farmland		0.3			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		0.0			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by NRCS) Land Evaluation Criterion					
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		0	0	0	0
PART VI (To be completed by Federal Agency)					
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	20			
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average	10	10			
8. Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	2			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	57	0	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	57	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	57	0	0	0
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Reason For Selection:					

(See Instructions on reverse side)

This form was electronically produced by National Production Services Staff

Clear Form

Form AD-1006 (10-83)

APPENDIX C. DEPARTMENT OF CONSERVATION CORRESPONDANCE

STATE OF CALIFORNIA, RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, GOVERNOR



DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEB SITE conservation.ca.gov

September 12, 2005

Mr. Jeremy Ketchum, Chief
Department of Transportation
Office of Environmental Management
2389 Gateway Oaks Drive, 1st Floor
Sacramento, CA 95833

Subject: Public Agency Acquisition of Land Enrolled in Williamson Act Contract,
State Route 49, Department of Transportation, El Dorado County

Dear Mr. Ketchum:

Thank you for your letter of August 8, 2005, notifying the Department of Conservation (Department) of the possible acquisition of land enforceably restricted by Williamson Act contract by the Department of Transportation (Caltrans). The purpose of the acquisition is to improve driver safety by widening and making curve corrections along State Route (SR) 49 south of the community of El Dorado in El Dorado County (County). The project will require acquisition of 7.12 acres from three parcels under contract with the same landowner.

Required Findings

The Williamson Act requires that a public agency shall not locate a public improvement within an agricultural preserve unless the following findings are made:

- *The location is not based primarily on a consideration of the lower cost of acquiring land in an agricultural preserve (Government Code section 51292(a)).*
- *If the land is agricultural land covered under a contract pursuant to this chapter for any public improvement, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement (Government Code section 51292(b)).*

The letter states that the largest parcel, of which 6.86 acres will be required, lies contiguous to both sides of SR 49 in the project area. The other two parcels are contiguous to the western side of SR 49. The project cannot be completed without taking a portion from either side of the largest parcel. In addition, according to the letter, the taking of Williamson Act land is not based primarily on cost but rather on necessity

*The Department of Conservation's mission is to protect Californians and their environment by:
Protecting lives and property from earthquakes and landslides; Ensuring safe mining and oil and gas drilling;
Conserving California's farmland; and Saving energy and resources through recycling.*

Mr. Jeremy Ketchum, Chief
September 12, 2005
Page 2 of 3

and the condition of the existing highway. The Department concludes, therefore, that this explanation and accompanying map appears to support making the required findings.

Eminent Domain

A Williamson Act contract is an enforceable restriction pursuant to Article XIII, section 8 of the California Constitution and Government Code section 51252. Assuming other necessary requirements are met, acquisition of Williamson Act land must meet requirements of eminent domain law for acquisition by eminent domain or in lieu of eminent domain (e.g., Code of Civil Procedure section 1230.010 et seq. and Government Code section 7260 et seq.) in order to void the contract pursuant to section 51295. If the acquisition does not void the contract, Caltrans' uses of contracted property will be affected and limited by the terms of the contract and provisions of the Act.

Although the letter does not address this matter, at least one Caltrans district has informed the Department that its acquisition process follows the policies and procedures described in Chapter 8 of the Caltrans Right of Way Manual, including Exhibit 8-EX-1, Article 6. Acquisition Policies. In the subject acquisition, if Caltrans were to follow these policies and procedures, it may meet the intent of section 51295 regarding voiding the subject contract with respect to the land so acquired. Please understand, however, that the Department does not provide counsel regarding eminent domain law but encourages Caltrans to obtain legal counsel for this purpose. To assist our review, we request that Caltrans describe its process for acquiring the subject property.

CEQA

The Department requests explanation and documentation, if available, of Caltrans' completion of CEQA requirements for this project.

Recommended County Consideration

Total acres for two of the three parcels are listed as 8 acres and 0.75 acres (APN 092-011-10 and 092-560-01 respectively). If accurate, these parcel sizes would be below the minimum pursuant to Government Code section 51222. The Department recommends that the County consider placing these parcels in nonrenewal or merging them with the third parcel (APN 092-011-09). Use of section 51257 for a lot line adjustment may be an option.

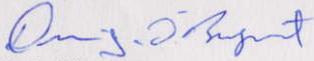
Additional Notification

Please be advised that pursuant to Government Code §51291(d), the Department and local governing entity must be notified of any proposed, significant changes to the

Mr. Jeremy Ketchum, Chief
September 12, 2005
Page 3 of 3

project. The Department must also be notified within 10 days when the property is actually acquired (Government Code §51291(c)). If Caltrans determines not to locate the proposed public improvement on the subject property or any part thereof, before returning the land to private ownership, it must notify the Department and local governing entity. The land must be reenrolled in a new contract or encumbered by an enforceable restriction at least as restrictive as that provided by the Williamson Act (Government Code §51295) and subject contract. If you have any questions, please contact Bob Blanford, Research Analyst, at (916) 327-2145.

Sincerely,



Dennis J. O'Bryant
Acting Assistant Director

cc: The Honorable Tim Holcomb
El Dorado County Assessor
360 Fair Lane
Placerville, CA 95667-4103

Board of Supervisors
El Dorado County
330 Fair Lane
Placerville, CA 95667

APPENDIX D. TITLE VI POLICY STATEMENT

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086



*Flex your power!
Be energy efficient!*

January 14, 2005

TITLE VI POLICY STATEMENT

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

A handwritten signature in black ink that reads "Will Kempton".

WILL KEMPTON
Director

"Caltrans improves mobility across California"

APPENDIX E. AVOIDANCE, MINIMIZATION AND MITIGATION SUMMARY

UTILITIES/EMERGENCY SERVICES

TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

- A detailed Traffic Management Plan will be included as part of the Contractor's specification package in order to manage temporary construction delays.

VISUAL/AESTHETICS and VEGETATION AND OAK WOODLANDS

- Use local native rock for Rock Slope Protection (RSP) around culverts and at any slope instability areas.
- Develop a storm water treatment location that pre-treats runoff from the project area before discharge. The storm water treatment shall be designed with the Landscape Architecture branch so that the site visually enhances the surrounding natural wetland areas.
- The stone entrance monument at Sierra Road (KP 12.52/PM 7.8) shall be reconstructed with like materials.
- Trees that are not within the direct alignment of project facilities or which must be removed for safety reasons shall be avoided.
- All native oak trees that are to remain within and adjacent to the proposed project shall be designated as “environmentally sensitive areas” (ESAs) and shall be temporarily fenced with orange plastic construction (exclusion) fencing throughout all grading and construction activities. The exclusion fencing shall be installed 1.8 m (6 ft) outside the dripline of each specimen tree, and shall be staked a minimum of every 1.8 m (6 ft). The fencing is intended to prevent equipment operations in the proximity of protected trees from compacting soil, crushing roots, or colliding with tree trunks or overhanging branches.
- No construction equipment shall be parked, stored or operated within 1.8 m (6 ft) of any specimen tree dripline.
- Duff and topsoil containing native seed stock shall be removed and stockpiled separately from subsoils. The soil will be used during revegetation upon completion of construction activities.
- Temporary erosion control measures shall be used during construction. These measures may include Erosion Control (Type D), fiber rolls, and erosion control blankets or fabric.
- A Revegetation and Restoration Plan shall be prepared by the project biologist, project landscape associate, and Caltrans revegetation specialist for the project. The revegetation plan shall address the following:
 - ❖ The revegetation /restoration plan shall be designed to minimize soil loss immediately after construction and to revegetate disturbed areas with native plants for long-term erosion control. The revegetation /restoration plan shall be implemented to compensate for the loss and/or disturbance of vegetation on the project site, areas cleared for access and construction staging areas. The restoration plan elements will be graphically depicted on final construction plans, including the location and extent of the dripline for all trees, type and location of any fencing, and equipment storage and staging areas outside of dripline areas.

- ❖ Where road alignment has changed, the existing roadbed shall be obliterated, and asphalt and subgrade removed to expose native material.
- ❖ Revegetation and replacement planting shall take place within the existing project right of way to the extent feasible.
- ❖ Plants selected for revegetation will be native species appropriate for the project area and will not include any noxious or invasive weeds. Seeds and container-grown plants shall be obtained from within the project area when feasible or from contract growers using locally occurring native plants. Advance notice shall be given to the suppliers or growers to ensure that the required species are ready at the proposed planting time.
- ❖ Protected trees that are removed or damaged (more than 25 percent of root zone disturbed) shall be replaced according to El Dorado County guidelines.
- ❖ Seeds (acorns) and container grown plants shall be obtained from within the project area when feasible or alternatively from contract growers using locally occurring native plants. Advance notice shall be given to suppliers or growers to ensure that the required species are ready at the proposed planting time. To enhance survival rates, tree plantings should be from liners or cuttings. Plant material in containers larger than one gallon will be avoided, if possible.
- ❖ Planting shall take place in the fall and winter following the final construction season.
- ❖ A monitoring program will be implemented. All revegetation areas will be monitored weekly for the first two weeks; followed by monthly monitoring for three months; and then quarterly monitoring for the next 12 months unless success criteria are met earlier. After the first year, tree and shrub species will be monitored on an annual basis for a period of five years. Monitoring will continue until performance standards are met.
- Where feasible, cut slopes shall be 1:1 and shall leave underlying bedrock exposed.
- Where shallower cut slopes are used, the top of the cut shall be contour graded to blend into existing topography.
- Cut slopes of 1:2 to 1:4 shall be used for revegetation and/or restoration. Contour grading plans will be prepared by the project landscape associate for these areas. Duff and topsoil shall be removed and stockpiled separately from subsoils, and used during revegetation upon completion of construction activities. Duff should be examined for noxious weeds by project biologist before stockpiling.
- Implement appropriate temporary erosion and sediment control measures to minimize adverse effects to the adjacent wetlands and adjacent properties at the completion of each construction season with a final permanent treatment upon completion of the project.

CULTURAL RESOURCES

- A MOA will be written stipulating mitigation measures for CA-ELD-685H.
- An ESA action plan will be prepared to protect CA-ELD-851 during construction. No work within the protected site will be allowed during construction. During those times when work occurs adjacent to the site, a Caltrans archaeologist will be present to guide the work and monitor any excavation.

WATER QUALITY AND STORM WATER RUNOFF

- The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 99-06-DWQ), issued by the State Water Resources Control Board.
- The contractor will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) containing effective erosion and sediment control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management and material pollution controls. It is generally accepted that practices that perform well by themselves can be complemented by other practices to raise the collective level of erosion control effectiveness and sediment retention.
- Standard Special Provision (SSP) 07-345 is a set of specifications used for projects that disturb more than one acre of soil. SSP 07-345 will be included in the construction specifications for this project and will clearly outline the contractor's responsibilities with respect to preparation and implementation of the SWPPP.

HAZARDOUS WASTE

- The contractor will prepare a Lead Compliance Plan.
- Lead awareness training will be provided to all personnel performing work in areas containing ADL.
- Excess material will be sampled and analyzed prior to exporting. If it is determined that surplus excavated material contains regulated or hazardous levels of lead, the material shall be handled and disposed of according to State and Federal laws.

AIR QUALITY

- Caltrans Standard Specifications contain Section 7-1.01F, "Air Pollution Control," and Section 10, "Dust Control." These specifications require the contractor to comply with all pertinent rules, regulations, ordinances, and statues of the local air district. These specifications, which are included in all construction contracts, should aid in reducing construction related air quality impacts.
- If NOA is found during construction, rules and regulation of the local air quality management district must be adhered to when handling this material.

NOISE

- Caltrans Standard Specifications contain Section 7-1.01I, "Sound Control Requirements." These specifications require the contractor to comply with all local sound control and noise level rules, regulations and ordinances that apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler. These specifications, which are included in all construction contracts, should aid in reducing construction related noise impacts.

BIOLOGICAL RESOURCES

Waters of the U.S.

- Project construction activities within aquatic features will not take place until there is a no-flow or no-surface water condition in all aquatic features in the project area.
- All waters and wetlands adjacent to the construction zone that will not be filled as a result of the project will be designated as environmentally sensitive areas (ESAs), and shall be fenced and signed to assure no inadvertent damage to these resources. Best management practices will be followed to minimize erosion and reduce sediments from entering channels and wetlands. All disturbed areas will be replanted upon completion of construction to stabilize soils. The Caltrans biologist will consult with the Caltrans archaeologist, Caltrans architectural historian and appropriate resource agencies to determine the final placement of ESA exclusion fencing.
- The proposed project will impact jurisdictional waters of the United States and as such will require the a Clean Water Act section 404 permit from the Army Corps of Engineers and a section 401 Water Quality Certification from the California Regional Water Quality Control Board. Because the work will take place below the top of the streambank, a 1601 Streambed Alteration Agreement will be required from CDFG. Conditions of these permits will include timing restrictions (work during no-flow periods, typically a June 15th to October 1st) to avoid water quality and species related impacts, and the restoration of native riparian vegetation impacted by project construction.
- Waters and wetlands impacts will be mitigated through a combination of on-site wetland creation, restoration, revegetation, and enhancement, and the purchase of credits at an approved mitigation bank, subject to review and approval by the USACE, USFWS, CDFG, and the Central Valley RWQCB during project permit application review and approval. Based on a projected combined loss of approximately 0.565 ha (1.397 acres) of waters and wetlands and an assumed replacement-to-loss compensation ratio of 3:1, Caltrans will be required to provide 1.70 ha (4.191 acres) of restoration, revegetation, enhancement, on-site creation, and/or mitigation credits.

Birds and Bats

- Minimize removal of native vegetation by locating staging areas and access routes in previously disturbed areas;
- Removal of vegetation shall be conducted in the fall and winter (between September 15 and March 1) after fledging and before the initiation of breeding activities;
- If vegetation removal during non-nesting season is determined unfeasible, then pre-construction bird surveys shall be performed in spring to determine the location of nest sites within the project area. A 92 m (300 ft) buffer zone shall be established between active passerine nests and any project construction activity, and a 150 m (500 ft) buffer zone between active raptor nests and any project construction activity, unless CDFG permits a reduced buffer zone based on nesting phenology and recommendation(s) of a biological monitor.
- A revegetation/habitat restoration plan shall be implemented to address short-term disturbance and long-term losses of potential nesting areas.

California yellow-legged frog and red-legged frog and Northwestern pond turtle

- Work within aquatic features shall not take place until there is a no-flow or no-surface water condition.

Invasive Species

- No dry-farmed straw will be used and certified weed-free straw shall be required where erosion control straw is to be used.
- Hydro-seed mulch or any other erosion control application must also be certified weed-free.
- If a revegetation seed mix is to be used, the mix shall also be certified weed-free and contain native species appropriate for the project area.
- All off-road equipment shall be cleaned of potential noxious weed sources (mud, vegetation) before entry into the project area, to help ensure noxious weeds are not introduced into the project area.
- The contractor shall employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds.
- Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.

APPENDIX F. ENVIRONMENTAL STUDY LIMIT MAPPING

The mapping on the following pages represents preliminary mapping used for studying the environmental resources within and next to the project limits.