

Jacalitos Creek Bridge Replacement Project

On State Route 33 east of the City of Coalinga in Fresno County

06-FRE-33-PM 10.9/11.1

Project ID 06-0002-0388

Project EA 06-43260

SCH# 2012031067

Initial Study with Mitigated Negative Declaration



Prepared by the
State of California Department of Transportation

March 2013



General Information about This Document

What's in this document?

This document contains a Mitigated Negative Declaration that examines the environmental effects of the proposed project on State Route 33 east of the city of Coalinga in Fresno County.

The Initial Study and proposed Mitigated Negative Declaration were circulated to the public from March 21, 2012 to May 1, 2012. Comment letters about the draft document that were received and responded to are shown in the Comments and Responses section. This section of the document was added after the draft was circulated. Elsewhere throughout this document, a line in the right margin indicates a change to the document since the draft was circulated.

What happens after this?

The proposed project has completed environmental compliance after the circulation of this document. When funding is approved, the California Department of Transportation, as assigned by the Federal Highway Administration, can design and build all or part of the project.

This document can also be accessed electronically at the following website:

<http://www.dot.ca.gov/dist6/environmental/envdocs/d6/>

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SCH# 2012031067
06-FRE-33-PM 10.9/11.1
Project EA 06-43260
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Replace the Jacalitos Creek bridge on State Route 33 east of the city of Coalinga from post mile 10.9 to
post mile 11.1 in Fresno County

**INITIAL STUDY
with Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation

3/27/13
Date of Approval


Jennifer H. Taylor
Office Chief, Central Region
Environmental Southern San Joaquin Valley
California Department of Transportation
CEQA Lead Agency

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the Jacalitos Creek bridge (bridge number 42-0072) on State Route 33 east of the City of Coalinga (post mile 10.9/11.1) with a wider structure that complies with current roadway standards.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on land use; growth; community impacts; emergency services; paleontology; hazardous waste or materials; noise, and hydrology and floodplain.

In addition, the proposed project would have no significant effect on air quality; farmland; utilities; water quality and storm-water runoff; cultural resources, geology/soils/seismic/topography; traffic and transportation; or visual/aesthetics.

In addition, the proposed project would have no significantly adverse effect on threatened and endangered species; wetlands and other waters; or natural communities. The following mitigation measures would reduce potential effects to insignificance:

- San Joaquin kit fox and giant kangaroo rat: The project would affect 6.34 acres of habitat. All impacts are considered permanent since temporary impacts to vegetation would take more than two seasons for replanted vegetation to reach maturity. Mitigation measures include compensation for loss of habitat through purchase of credits, at a 3 to 1 ratio, from the Kreyenhagen Hills Conservation Bank in Fresno County.
- Wetlands and other waters: Two mitigation options are proposed to address the potential loss of aquatic resources if the waterways are determined to be jurisdictional: 1) Preserve, enhance, and/or restore Jacalitos Creek after construction of the project; or 2) Create aquatic resources on or off the project site.
- Valley saltbush scrub: Impacted areas would receive on-site restoration. This would include duff collection—before construction—and duff redistribution after construction.
- Biological Resources: Impacts to biological resources would be minimized with biological monitoring, preconstruction surveys, environmentally-sensitive-area fencing, and work windows.


Jennifer H. Taylor
Office Chief, Central Region
Environmental Southern San Joaquin Valley
California Department of Transportation
CEQA Lead Agency

3/27/13
Date

Table of Contents

Mitigated Negative Declaration	iii
Table of Contents	v
List of Figures	vi
List of Tables	vi
List of Abbreviated Terms	vii
Chapter 1 Proposed Project.....	1
1.1 Introduction	1
1.2 Purpose and Need.....	1
1.2.1 Purpose.....	1
1.2.2 Need	1
1.3 Alternatives	2
1.3.1 Build Alternative.....	2
1.3.2 No-Build Alternative	5
1.3.3 Identification of a Preferred Alternative	5
1.3.4 Alternatives Considered but Eliminated from Further Discussion	5
1.4 Permits and Approvals Needed	5
Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures	7
2.1 Human Environment	8
2.1.1 Farmlands/Timberlands	8
2.1.2 Utilities/Emergency Services.....	10
2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities.....	11
2.1.4 Visual/Aesthetics	12
2.2 Physical Environment	14
2.2.1 Hydrology and Floodplain	14
2.2.2 Water Quality and Storm Water Runoff	16
2.2.3 Geology/Soils/Seismic/Topography	23
2.3 Biological Environment	24
2.3.1 Natural Communities	24
2.3.2 Wetlands and Other Waters	25
2.3.3 Plant Species	28
2.3.4 Animal Species	31
2.3.5 Threatened and Endangered Species	38
2.4 Climate Change	47
Chapter 3 Comments and Coordination.....	65
Chapter 4 List of Preparers	69
Appendix A California Environmental Quality Act Checklist	73
Appendix B Title VI Policy Statement	83
Appendix C Minimization and/or Mitigation Summary.....	85
Appendix D Farmland Conversion Impact Rating.....	99
Appendix E United States Fish and Wildlife Service Species List	101
Appendix F United States Fish and Wildlife Service Biological Opinion	103

Appendix G Comments and Responses	117
List of Technical Studies Bound Separately.....	137

List of Figures

Figure 1-1 Project Vicinity Map	3
Figure 1-2 Project Location Map.....	4
Figure 2-1 California Greenhouse Gas Inventory.....	53
Figure 2-2 Possible Effect of Traffic Speeds in Reducing On-Road CO ₂ Emissions	54
Figure 2-3 Mobility Pyramid	57

List of Tables

Table 2.1 Farmland Conversion by Alternative.....	10
Table 2.2 Climate Change Strategies.....	59

List of Abbreviated Terms

Caltrans or Department	California Department of Transportation
CEQA	California Environmental Quality Act
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act
PM	post mile
CFR	Code of Federal Regulations
PS and E	Plans, Specifications, and Estimate
SHOPP	State Highway Operations and Protection Program
TCE	Temporary Construction Easement

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to correct seismic damage and foundation settlement by replacing the Jacalitos Creek bridge (bridge number 42-0072) 4 miles east of the City of Coalinga on State Route 33 (post mile 10.9/11.1). Within the project area, State Route 33 is a two-lane undivided highway that runs east through a rural area from the City of Coalinga (west of Jacalitos Creek) to Interstate 5 (east of Jacalitos Creek) (see Figure 1-1 and Figure 1-2).

The existing Jacalitos Creek bridge was built in 1955 as a 6-span concrete slab bridge. The project proposes to replace the existing Jacalitos Creek bridge with a single-span box girder bridge. The project would also reconstruct the roadway at the bridge approaches; place rock slope protection on the southeast side of the bridge and on the abutments; repair the existing double fence with rocks on the south side of the bridge; and add storage ditches at all four corners of the bridge.

Because funding for the proposed project includes federal funds, a National Environmental Policy Act Categorical Exclusion will be prepared after circulation and public comment of this document.

The proposed project, estimated to cost \$6.9 million, was programmed in the 2010/2011 State Highway Operation and Protection Program.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to correct seismic damage and foundation settling by replacing the existing Jacalitos Creek bridge with a wider structure that meets Caltrans' current roadway structure standards.

1.2.2 Need

The project area experienced heavy flooding in 1958, 1962, and 1969. The floodwaters scoured the streambed, causing the foundation to settle. As a result of the 1969 flood, the bridge deck sagged, but it was repaired in 1970 by jacking it up. The bridge was then stabilized with steel piles in the bridge columns and concrete pile caps around the bottom of each column. In 1983, the bridge suffered minor column cracking during the Coalinga earthquake. The existing bridge does not meet Caltrans'

current roadway structure standards and the existing water passage constricts the natural flow of Jacalitos Creek, resulting in contraction scour of the bridge foundations.

1.3 Alternatives

One Build Alternative and a No-Build Alternative are under consideration.

1.3.1 Build Alternative

The Build Alternative would correct seismic damage and foundation settlement by replacing the existing Jacalitos Creek bridge (bridge number 42-0072) with a wider structure that meets Caltrans' current roadway structure standards. About 2.4 acres of permanent new right-of-way and 2.01 acres of temporary right-of-way for a construction easement are required. The proposed work would include the following:

- Rebuilding the roadway at the bridge approaches
- Adding rock slope protection on the southeast section of Jacalitos Creek and around the bridge abutments
- Repairing the existing chained double fence with rocks on the southern section of Jacalitos Creek
- Constructing storage ditches on the four corners of the project location
- Replacing the existing 6-span concrete slab bridge with a single-span box girder bridge
- Adding 12-foot-wide lanes and 8-foot-wide shoulders to bring the bridge to Caltrans' current roadway structure standards

The cost of the proposed Build Alternative is \$6.9 million.

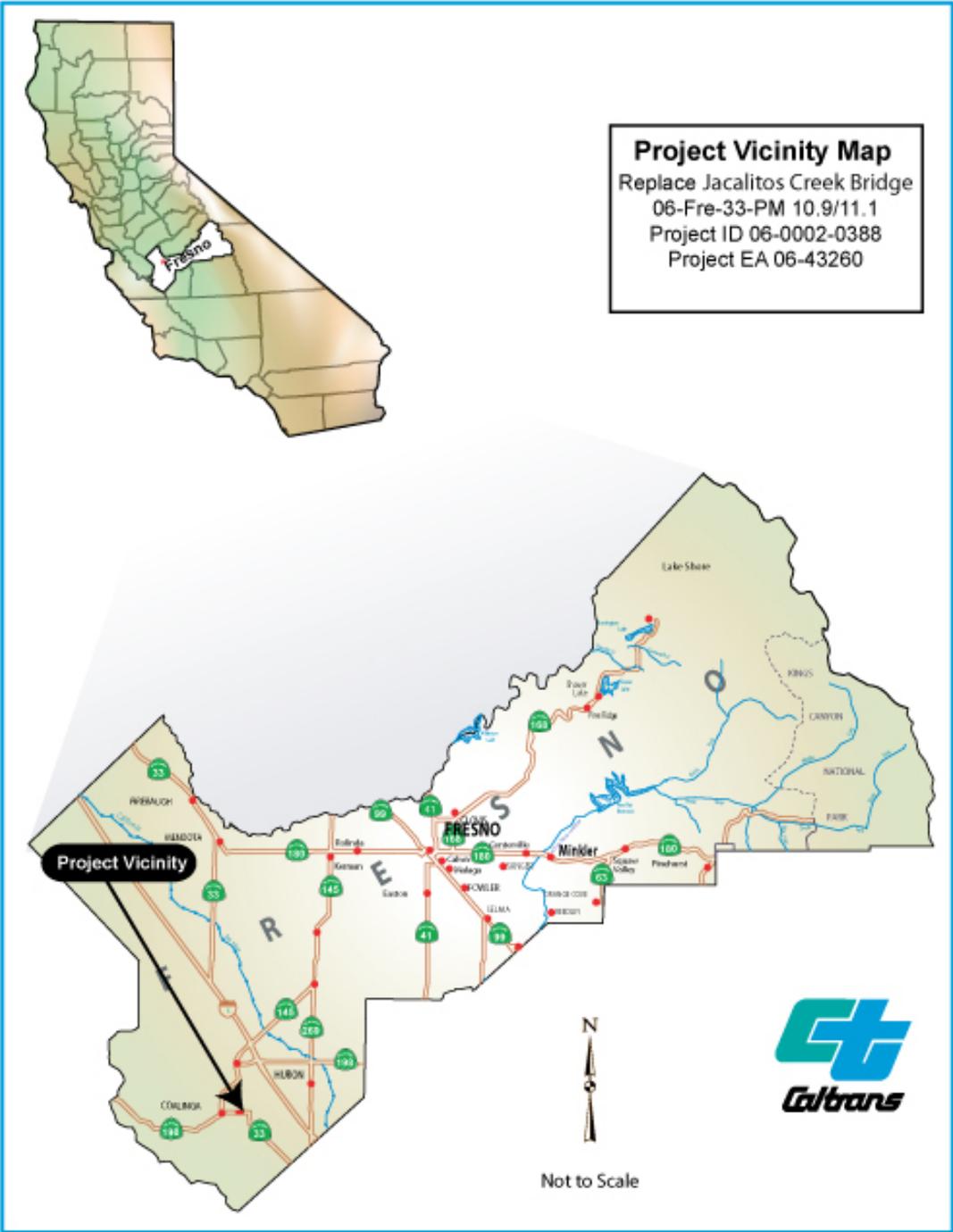


Figure 1-1 Project Vicinity Map

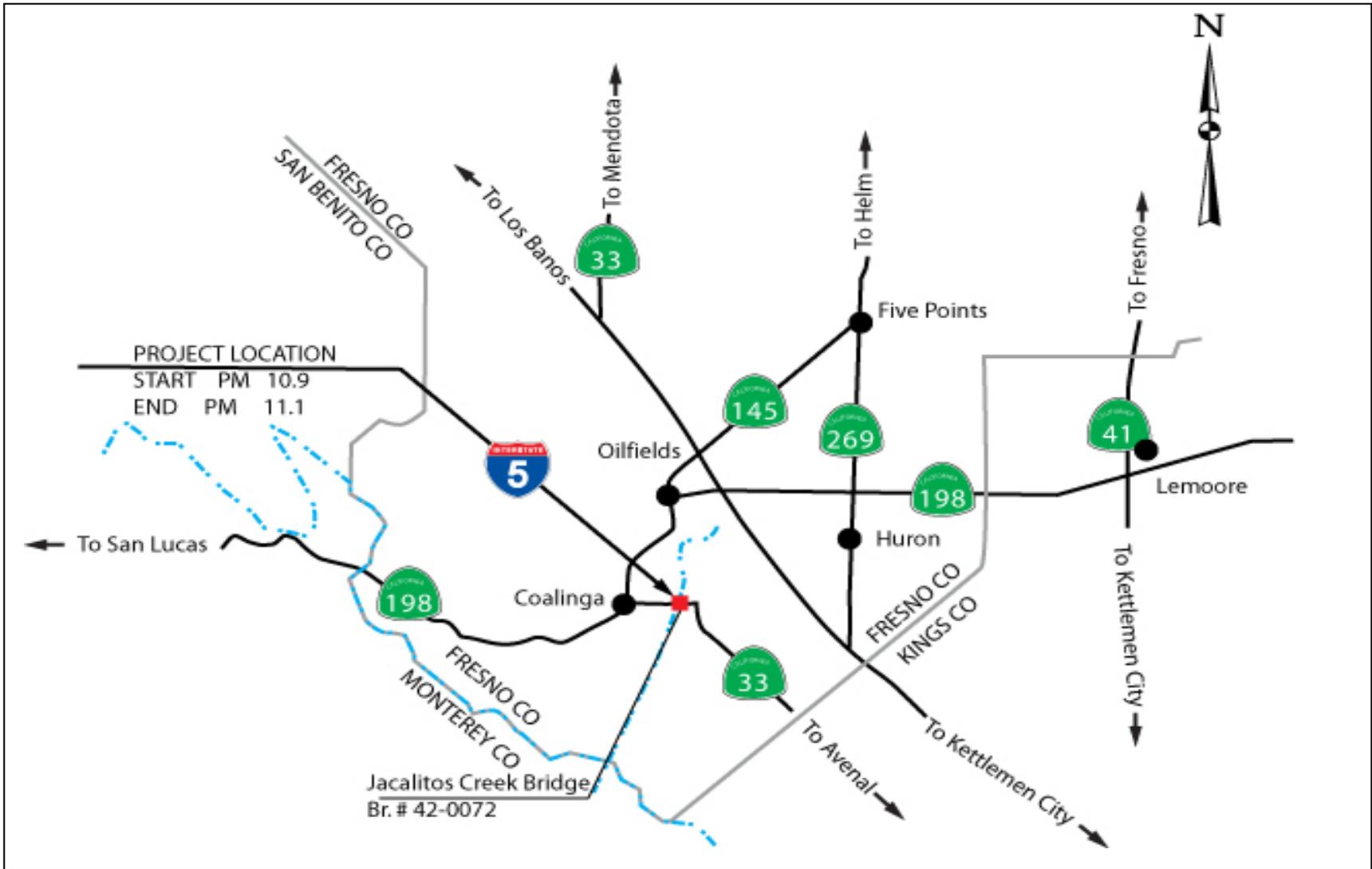


Figure 1-2 Project Location Map

1.3.2 No-Build Alternative

The No-Build Alternative would keep the existing Jacalitos Creek bridge. The No-Build Alternative does not meet the project purpose and need or correct the seismic damage and foundation settlement at the bridge.

1.3.3 Identification of a Preferred Alternative

Caltrans has identified the Build Alternative as the preferred alternative because it has the greatest project benefits with regard to any associated impacts. The Build Alternative would correct seismic damage and foundation settling by replacing the existing Jacalitos Creek bridge with a wider structure that meets the Caltrans current roadway structure standards.

1.3.4 Alternatives Considered but Eliminated from Further Discussion

Caltrans Structures considered replacing the existing Jacalitos Creek bridge with a 3-span slab bridge. This bridge type, however, was dropped after the September 2011 Hydraulics Report showed that a single-span box girder bridge is better for handling high-water flooding events and avoids placing pier supports on the creek bed.

1.4 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
Regional Water Quality Control Board	Section 401	Would be completed during the project design phase.
U.S. Army Corps	Section 404	Would be completed during the project design phase.
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	Would be completed during the project design phase.
United States Fish and Wildlife Service	Biological Opinion	Received on March 5, 2013.
State Water Resources Control Board	National Pollutant Discharge Elimination System (NPDES) Permit	Would be completed during the project design phase.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow.

As part of the scoping and environmental analysis for the project, the following environmental issues were considered, but no adverse impacts were identified. Consequently, there is no further discussion of these issues in this document.

- **Land Use**—The project is consistent with existing and future land use and with the following state, regional, and local plans: the 2010/2011 State Highway Operation and Protection Program, the 2000 Fresno County General Plan, and the 2009 City of Coalinga General Plan. The project is not near a coastal zone, and Jacalitos Creek is not designated as a wild and scenic river (National Wild and Scenic Rivers System website, <http://www.rivers.gov/rivers/california.php>).
- **Growth**—The project would not promote growth because the bridge replacement would only replace the existing Jacalitos Creek bridge (Field Visit, October 10, 2011).
- **Community Impacts**—The project would not disrupt the community character or cohesion or result in any relocation of residences or businesses. The project would replace an existing bridge in a rural area (Field Visit, October 10, 2011).
- **Environmental Justice**— No identified minority or low-income populations would be adversely affected by the project (Field Visit, October 10, 2011).
- **Cultural Resources**—Cultural studies determined the project would have no effect on cultural resources. The Jacalitos Creek bridge is not listed as a historic bridge under the Caltrans Historic Bridge Inventory. Caltrans' policy is to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, work would stop in that area until a qualified archaeologist can

evaluate the nature and significance of the find. If human remains are exposed during project activities, State Health and Safety Code Section 7050.5 states that no further disturbance should occur until the county coroner has made the necessary findings as to origin and disposition as stated in Public Resources Code 5097.98 (Historic Property Survey Report with attached Archaeological Survey Report, February 16, 2012; Supplemental Historic Property Survey Report, August 7, 2012).

- Paleontology—Project excavation is unlikely to encounter paleontological resources (Paleontological Identification Report, November 3, 2011).
- Hazardous Waste or Materials—The Bridge Survey and Aerially Deposited Lead Study completed for this project show a low risk of encountering hazardous waste (Hazardous Waste Compliance Memo, March 28, 2011 and November 3, 2011).
- Air Quality—The project would generate temporary air pollutants during construction. Use of the Caltrans Standard Specifications would effectively reduce and control emissions during construction. The project is exempt from conformity determination as state in 40 Code of Federal Regulations Section 93.126, Table 2 (Air Quality Compliance Memo, November 21, 2011).
- Noise and Vibration—The project is not a Type I project and is therefore not subject to Caltrans' Traffic Noise Analysis Protocol (Noise Study Compliance Memo, November 21, 2011).
- Invasive Species—The project would not introduce, transport, or spread invasive species. The project would not encourage the immigration of invasive species to the project area (Natural Environment Study, January 11, 2012).

2.1 Human Environment

2.1.1 Farmlands/Timberlands

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (7 United States Code 4201-4209 and its regulations; 7 Code of Federal Regulations Part 658) require federal agencies such as the Federal Highway Administration to coordinate with the Natural Resources Conservation Service if there is a chance federal agency activities might convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to nonagricultural uses. The Williamson Act is designed to preserve agricultural land and to encourage open-space preservation and efficient urban growth. The Williamson Act provides incentives to landowners—through reduced property taxes—to deter the early conversion of agricultural and open-space lands to other uses.

Affected Environment

The Fresno County Agriculture Commissioner reported a total agricultural production value of \$5,944,758,000 in Fresno County, an 11.17 percent increase from 2009. Grapes, almonds, and tomatoes were the top three commodities in dollar value. Agriculture is still a dominant industry that leads the Fresno County economy. And because the 2010 crop year demonstrated the ability of agriculturalists to respond to improved and consistent water availability, the 2010 Fresno Agricultural Crop Report assumed that the outlook for agriculture is optimistic, although the guarantee of water and much of the cost of producing a crop is beyond the control of the grower.

The Excelsior sandy substratum-westhaven association soils within the project impact area is not considered prime farmland. Although active farm fields are in the project area, the direct impact area surrounding the Jacalitos Creek bridge does not include active farmland. Even though the parcel just north of the bridge is zoned for agriculture, no Williamson Act land parcels are within the project limits.

Environmental Consequences

The Natural Resources Conservation Service Farmland Conversion Impact Rating was completed for the project in November 2011 (see Appendix D). This rating determines the relative value of farmland to be converted by using a formula that weighs farmland classification, soil characteristics, irrigation, acreage, creation of non-farmable land, availability of farm services, and other factors. The Natural Resources Conservation Service only uses prime/unique and statewide/local importance-classified land on the Farmland Conversion Impact Rating form. If the rating is more than 160 points, Caltrans considers measures that would minimize or mitigate farmland impacts. The project would require a total of 2.4 acres of permanent new Right of Way and 2.01 acres of temporary right-of-way for construction easements. Although there are active farm fields surrounding the project area, the proposed new right-of-way (both permanent and temporary) surrounding the Jacalitos Creek bridge does not include active farmland.

The Fresno office of the Natural Resources Conservation Service determined that the project would not convert prime and unique farmland having a relative value of 0 to 100 possible points under these criteria. No statewide or locally important farmland is being converted. Additional points were factored in on the Natural Resources Conservation Service form for a total impact rating of 60 points for the project. Table 2.1 shows the conversion rating used to determine the Farmland Impact Rating for Fresno County.

Table 2.1 Farmland Conversion by Alternative

Alternative	Land Converted (acres)	Prime and Unique Farmland (acres)	Percentage of Farmland in County	Percentage of Farmland in State	Farmland Conversion Impact Rating
Build	2.1	0	0	0	60
No-Build	0	0	0	0	0

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating)

The impact rating for the project is less than the 160 points that would trigger consideration of greater protection under the Farmland Protection Policy Act. No Williamson Act land contracts would be affected within the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation for farmland is necessary other than payment for the property acquired.

2.1.2 Utilities/Emergency Services

Affected Environment

This section discusses information obtained from the Right of Way Data Utility Sheet Memo (December 2011) that was completed for the proposed project. Utilities located within the project area include two power poles, a water line, and a telephone cable line.

The City of Coalinga provides law enforcement, fire protection, and emergency medical and rescue service. The Fresno County Sheriff’s Department uses State Route 33 to access their rural areas of jurisdiction in western Fresno County. The California Highway Patrol is responsible for traffic enforcement on State Route 33.

Environmental Consequences

The project would require the relocation of two power poles on the south side of State Route 33. No other utilities would be affected by the project.

The project would have a beneficial impact on fire protection, law enforcement, and emergency services by providing a new, wider bridge over Jacalitos Creek. Although project construction would create temporary traffic delays, these impacts would not be substantial because the proposed project would enforce a traffic management plan.

Avoidance, Minimization, and/or Mitigation Measures

Any utility relocation outside the boundaries of the environmental studies completed for the project would require separate environmental studies. Impacts to services during utility relocation would be temporary. A detailed study would be conducted during the final design phase of this project and utility conflict mapping would be prepared.

A traffic management plan would be developed to minimize delays and maximize safety for the motorists during construction. The traffic management plan could include but is not limited to the following:

- Release of information through brochures and mailers, press releases, and advertisements managed by the public information office
- Use of fixed and portable changeable message signs
- Incident management through the Construction Zone Enhancement Enforcement Program and the transportation management center
- Use of one-way traffic control

2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities *Regulatory Setting*

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Caltrans is committed to carrying out the 1990 Americans with Disabilities Act by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

Affected Environment

A Project Scope Summary Report was completed in December 2003. Within the project area, State Route 33 is a two-lane undivided highway that runs through a rural area from the city of Coalinga east to Interstate 5. State Route 33 is a major route in the middle of a productive agricultural region. The existing Jacalitos Creek bridge was built in 1955 as a 6-span concrete slab bridge. The current shoulders are about 3 feet wide. Although pedestrians and bicyclists are allowed on this segment of State Route 33, the shoulder approach to the bridge is narrow.

Environmental Consequences

The purpose of the proposed project is to correct seismic damage and foundation settlement by replacing the existing Jacalitos Creek bridge with a wider structure that meets Caltrans current roadway structure standards. The new, wider bridge would give bicyclists and pedestrians more room to navigate on the shoulders. The project is scheduled to start construction in 2015 and would be open to traffic in 2016. A temporary signal would control one-way traffic.

Avoidance, Minimization, and/or Mitigation Measures

Although construction of the project could result in temporary delays, a traffic management plan would be developed to minimize delays and maximize safety for the motorists. The traffic management plan would include, but is not limited to the following:

- Release of information through brochures and mailers, press releases, and advertisements managed by the public information office
- Use of fixed and portable changeable message signs
- Incident management through the Construction Zone Enhancement Enforcement Program and the transportation management center.
- Use of one-way traffic control

2.1.4 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code 4331[b][2]). To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy

Act (23 United State Code 109[h]) directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act 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.” (California Public Resources Code Section 21001[b])

Affected Environment

A Caltrans landscape architect completed a Visual Impact Assessment (Minor) for the project on November 3, 2011. The focus of the recommendation was to determine the impacts the project would have on the views at the Jacalitos Creek bridge on State Route 33.

Landscape Units

A landscape unit is defined as a portion of the regional landscape used to provide a visual effects framework for the comparison of highway construction projects. A Valley Rural Landscape Unit, defined by the following characteristics, was identified within the project corridor:

- Rolling or flat topography
- Road that is generally flat but undulates with the landform
- Agricultural land and undeveloped land
- Roadside vegetation mainly comprised of shrubs and grasses
- No medians

State Route 33 is a major route in one of the most productive agricultural regions in the world and is one of many routes that are critical to the economic vitality of the state. The existing roadway is a two-lane undivided highway that does not include highway planting. However, this segment within the project area does include riparian vegetation that includes mature trees which are visible to passing motorists.

Environmental Consequences

The project would require the removal of mature riparian (streamside) trees and other vegetation within the project area. There would also be temporary visual changes in the project area during construction.

Avoidance, Minimization, and/or Mitigation Measures

The following would ensure that the visual quality of this segment of State Route 33 is preserved:

- Minimize the disturbance and protect existing vegetation
- Use erosion control and storm-water runoff control measures in disturbed areas that would not be paved
- Include a separate revegetation project to provide slope stabilization and ensure that no visual impacts would occur as result of the project
- Recommend storage ditches have slopes with a ratio of 4 to 1
- Require slopes underneath and around the bridge abutments have a ratio of 2 to 1 or flatter
- Comply with the Highway Design Manual and the National Pollutant Discharge Elimination System permit that slopes in excess of 1 to 4 would require written concurrence from the Caltrans district landscape architect and may also require concurrence from the Caltrans district maintenance and district storm-water coordinator
- Involve the Caltrans district landscape architect early in the design phase to help make the determination on slope design

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

To comply with the executive order, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments

- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

The existing Jacalitos Creek bridge is on State Route 33 in Fresno County, just east of the city of Coalinga. The stream course within the project area is a wide, naturally winding channel. The watershed for Jacalitos Creek within the project area encompasses about 64 square miles. Jacalitos Creek originates in the coastal range and flows northeasterly into Pleasant Valley to the east of the city of Coalinga, through the project site, and eventually into Los Gatos Creek just over a mile downstream from Jacalitos Creek bridge (Hydraulics Recommendation, October 13, 2011; Location Hydraulic Study, February 14, 2012; Final Hydraulics Report, September 22, 2011).

The Flood Insurance Rate Map designates the project area as *Zone A, Areas of 100-year flood*.

Environmental Consequences

The Jacalitos Creek bridge has experienced a history of scour issues since the bridge was built in 1955. The project area experienced heavy flooding and scouring in 1958, 1962, and 1969 that resulted in foundation settlement. The stream course within the project area is a wide, naturally winding channel. The existing roadway embankment and the Jacalitos Creek bridge cause a considerable restriction to the natural flow during high water events.

The Flood Insurance Rate Map designates the project area as *Zone A, Areas of 100-year flood*. The existing and replacement Jacalitos Creek bridge are capable of withstanding the 100-year flood.

Avoidance, Minimization, and/or Mitigation Measures

To control erosion and prevent washout within the project area, rock slope protection would be placed on the southeast side of the new Jacalitos Creek bridge and along the abutments. On the south side, the existing double-chained fence would be repaired with rocks to prevent erosion on the new bridge abutments. The new bridge will be a single-span box girder bridge supported by long abutment piles. The piles, designed to survive severe scour issues and extreme flood events, would be placed outside of the creek bed. The new wider bridge would require reconstruction of the roadway shoulder. Side slopes would have a 4 to 1 ratio or flatter to allow for storm-water runoff from the pavement.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Federal Requirements: Clean Water Act.

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System permit. Known today as the Clean Water Act, Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the National Pollutant Discharge Elimination System permit scheme. The following are important Clean Water Act sections:

- Sections 303 and 304 require states to tell the public about water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge would comply with other provisions of the Clean Water Act. Section 401 compliance is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the National Pollutant Discharge Elimination System, a permitting system for the discharge (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharge of storm water from industrial/construction and municipal separate storm sewer systems.

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers.

The objective of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The U.S. Army Corps of Engineers issues two types of 404 permits: Standard and General permits. There are two types of General permits, Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide permit may be permitted under one of U.S. Army Corps of Engineers’ Standard permits. For Standard permits, the U.S. Army Corps of Engineers decision to approve is based on compliance with U.S. Environmental Protection Agency’s Section 404 (b)(1) Guidelines (Code of Federal Regulations 40 Part 230), and whether permit approval is in the public interest. The Section 404(b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative that would have less adverse effects. The Guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. As stated in the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition every permit from the U.S. Army Corps of Engineers, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements (see 33 Code of Federal Regulations 320.4). A discussion of the least environmentally damaging practicable alternative determination, if any, is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface or groundwater of the state. It predates the Clean Water Act and regulates discharges to waters of the state. Waters of the state include more than just Waters of the U.S. like groundwater and surface waters not considered Waters of the U.S. Additionally, the Porter-Cologne Act prohibits discharges of waste as defined and this definition is broader than the Clean Water Act definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable Regional Water Quality Control Boards Basin Plan. States designate beneficial uses for all water-body segments, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, each state identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with the Clean Water Act Section 303(d). If a state determines that waters are impaired for one or more constituents, and the standards cannot be met through point source controls, the Clean Water Act requires the establishment of total maximum daily loads that specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board administers water rights, water pollution control, and water quality functions throughout the state. Regional Water Quality Control Boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollution Discharge Elimination System Program Municipal Separate Storm Sewer Systems

Section 402(p) of the Clean Water Act requires the issuance of National Pollution Discharge Elimination System permits for five categories of storm water dischargers, including municipal separate storm sewer systems. The U.S. Environmental Protection Agency defines municipal separate storm sewer systems as any conveyance or system of conveyances—roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains—owned or operated by a state, city, town, county, or other public body having jurisdiction over storm-water conveyances designed or used for collecting or moving storm water. The State Water Resources Control Board has identified Caltrans as an owner/operator of municipal separate storm sewer systems. This National Pollution Discharge Elimination System permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The State Water Resources Control Board or the Regional Water Quality Control Board issues National Pollution Discharge Elimination System permits for five years. Permit requirements remain active until a new permit has been adopted.

The Caltrans Municipal Separate Storm Sewer Systems Permit, under revision at the time of this update, contains three basic requirements:

- Caltrans must comply with the Construction General Permit (see below).
- Caltrans must use a year-round program throughout the state to effectively control storm-water and non-storm-water discharges.
- Caltrans storm-water discharges must meet water quality standards through the use of permanent and temporary (construction) best management practices and other measures.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan to address storm-water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Statewide Storm Water Management Plan assigns responsibilities within Caltrans for using storm-water management procedures and practices as well as training; public education and participation; monitoring and research; program evaluation; and reporting activities. The Statewide Storm Water Management Plan describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm-water and non-storm-water discharges. The water management plan outlines procedures and responsibilities for protecting water quality, including the selection and implementation of best management practices. The proposed project would be programmed to follow the guidelines and procedures outlined in the latest Statewide Storm Water Management Plan to address storm-water runoff.

Appended to the Statewide Storm Water Management Plan is the Storm Water Data Report and its associated checklists. The Storm Water Data Report documents the relevant storm-water design decisions made regarding project compliance with the National Pollution Discharge Elimination System Municipal Separate Storm Sewer Systems Permit. The preliminary information in the Storm Water Data Report, prepared during the Project Initiation Document phase, would be reviewed, updated, confirmed, and if required, revised in the Storm Water Data Report prepared for the later phases of the project. The information contained in the Storm Water Data Report may be used to make more informed decisions regarding the selection of best management practices and the recommended avoidance, minimization, or mitigation measures used to address water quality impacts.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm-water discharges from construction sites that result in a disturbed soil area of one acre or greater, and/or are smaller construction sites that are part of a larger common plan of development. By law, all storm-water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit.

Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to develop storm-water pollution prevention plans; use sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels, determined during the planning and design phases, are based on potential erosion and transport to receiving waters. The risk level determines the requirements. For example, a Risk Level 3 (highest risk) project would require the following: compulsory storm-water runoff pH and turbidity monitoring; and before- and after-construction aquatic biological assessments during specified seasonal windows. For all projects subject to the Construction General Permit, applicants are required to develop and use an effective Storm Water Pollution Prevention Plan. In accordance with the Caltrans Standard Specifications, a Water Pollution Control Plan is necessary for projects with disturbed soil areas less than one acre.

Section 401 Permitting

Under Section 401 of the Clean Water Act, any project requiring a federal license or permit that may also discharge to a water body must obtain a 401 Certification that certifies the project would be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are Clean Water Act Section 404 permits issued by the U.S. Army Corps of Engineers. Dependent upon the project location, 401 Certification is obtained from the appropriate Regional Water Quality Control Board. Certification is required before the U.S. Army Corps of Engineers issues a 404 permit.

In some cases the Regional Water Quality Control Board may have specific concerns with discharges associated with a project. As a result, the Regional Water Quality Control Board may issue Waste Discharge Requirements under the State Water Code. The water codes define activities such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals to be used for protecting or benefiting water quality. Waste Discharge Requirements can be issued to address both permanent and temporary discharges of a project.

Affected Environment

A Water Quality Assessment Report was completed on January 24, 2012. The existing Jacalitos Creek bridge is on State Route 33 in Fresno County east of the city of Coalinga. The streambed within the project area is a wide, naturally winding channel. The watershed for Jacalitos Creek within the project area encompasses approximately 64 square miles. Jacalitos Creek originates in the coastal range and flows northeasterly into Pleasant Valley east of the City of Coalinga where the streambed winds through the project site. The creek merges with Los Gatos Creek over a mile downstream from the Jacalitos Creek bridge.

The project area is within the San Joaquin River Groundwater Basin. Groundwater throughout the basin is suitable for agricultural water supply and industrial use. The quality of the water from Jacalitos Creek is considered moderate to good.

Environmental Consequences

Short-term impacts to water quality within the area might occur during project construction. Long-term impacts to water quality impacts associated with the project may occur from pollutants entering Jacalitos Creek through storm-water runoff. Increased pollutant discharges from the road surface during storm events could impact local water bodies. Uncontrolled water flow from the highway surface may

cause erosion that could alter stream geomorphology and cause gullies. Due to the design, permitting, and site-specific conditions of this project, however, the potential long-term impacts to water quality are not considered adverse.

Avoidance, Minimization, and/or Mitigation Measures

To control erosion and prevent washout within the project area, rock slope protection would be placed on the southeast side of the new Jacalitos Creek bridge and along the abutments. On the south side, the existing double-chained fence would be repaired with rocks to prevent erosion on the new bridge abutments. The new bridge would be a single-span box girder bridge that would not require columns. The bridge would be supported by long abutment piles placed outside the creek bed. The piles would be designed to survive severe scouring and extreme flood events. The proposed wider bridge would require reconstruction of the roadway shoulder. Side slopes for storage ditches to be excavated would be designed at a 4 to 1 ratio or flatter to allow for pavement runoff.

Perennial riparian (streamside) vegetation may be removed during construction. A separate revegetation project would provide slope stabilization and aesthetic mitigation. Building unlined storage ditches would minimize the discharge of highway pollutants and storm-water runoff to the waterways.

Temporary Construction Measures

Standard temporary construction-site and permanent-design pollution prevention and permanent storm-water treatment best management practices would be used during and after project construction to control potential discharges of pollutants to surface water. Best management practices would be designed to control general gross pollutants and sedimentation/siltation, depending on location.

The required Storm Water Pollution Prevention Plan would address all the best management practices necessary to prevent water quality impacts during construction. Buffers for sensitive resources such as wetlands and riparian corridors would be put in place throughout the project area. The following measures would minimize potential water quality and hydrological impacts associated with construction:

- **Storm Water Best Management Practices**—Caltrans would be required by the state to conform to the Statewide National Pollutant Discharge Elimination System Storm Water Permit, Order Number 99-06-DWQ, NPDES Number CAS000003, adopted by the State Water Resources Control Board on July 15, 1999, and any subsequent permit in effect at the time of construction. In addition, Caltrans must

require the contractor to comply with the requirements of Order Number 99-06-DWQ, as well as the requirements of the General National Pollutant Discharge Elimination System Permit for Construction Activities, Order Number 2009-0009-DWQ, NPDES Number CA S000002. Caltrans would also ensure that the contractor use best management practices as specified in the Caltrans Storm Water Management Plan (Caltrans 2003c).

- **Prepare and Implement a Storm Water Pollution Prevention Plan**—Caltrans would require the contractor to develop an acceptable Storm Water Pollution Prevention Plan. The Storm Water Pollution Prevention Plan would contain best management practices that have demonstrated effectiveness at reducing storm water pollution. The Storm Water Pollution Prevention Plan would address all construction-related activities, equipment, and materials with the potential to affect water quality. All construction site best management practices would follow the latest edition of the Storm Water Quality Handbooks and Construction Site Best Management Practices Manual to control and minimize the impacts of construction-related pollutants. The Storm Water Pollution Prevention Plan would include best management practices to control pollutants, sediment from erosion, storm water-runoff, and other construction-related impacts. In addition, the Storm Water Pollution Prevention Plan would include the use of specific storm-water effluent monitoring requirements based on the project’s risk level to ensure that the best management practices are effective in preventing the degradation of any water quality standards.

2.2.3 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935 that established a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Caltrans Office of Earthquake Engineering is responsible for assessing the seismic hazard for projects. The current policy is to use the anticipated maximum credible earthquake from young faults in and near California. The maximum credible earthquake is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

Affected Environment

The existing Jacalitos Creek bridge (at the top of the bridge deck) is at an elevation of about 585 feet. Subsurface materials encountered at the project site consist of a top thin layer of loose sand and gravel underlain by a thick layer of silt, clay, and sand. The nearest active fault, the Great Valley Fault, is about 7.0 miles from the project site (Preliminary Foundation Report, August 15, 2011; Final Structures Hydraulics Report, September 22, 2011).

Environmental Consequences

Groundwater data within the project area reflected a deep water level. The soil under the bridge consists of loose, sandy layers that contain fine contents; therefore, the potential for liquefaction in the project area is low to moderate.

Avoidance, Minimization, and/or Mitigation Measures

The new bridge would be a single-span box girder design. The design would handle soil liquefaction by using long piles.

2.3 Biological Environment

2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas designated as critical habitat under the Federal Endangered Species Act are discussed in Threatened and Endangered Species, Section 2.3.5. Wetlands and other waters are discussed in Section 2.3.2.

Affected Environment

A Natural Environment Study was completed on January 11, 2012. The biological study area consisted of a 0.2-mile-long segment along State Route 33 and the Jacalitos Creek bridge. The project impact area is defined as the area directly affected, plus adjacent areas that may be indirectly affected. Potential staging areas were also included in the project impact area. Study methods included a review of resource agency databases, inventories of special-status species, agency coordination,

field studies, assessment of vegetation and habitat characteristics, and evaluation of impacts to identified resources. These methods were designed to meet both state and federal regulations.

Valley Saltbush Scrub

Valley saltbush scrub habitat is categorized as open, grey or blue-green scrubs that are dominated by allscale. Valley saltbush scrub is typically found in habitats that experience dry, hot summers and cool, moist winters.

Environmental Consequences

Valley Saltbush Scrub

Valley saltbush scrub was found within the project area. The project would permanently impact 5.03 acres of valley saltbush scrub. All impacts are considered permanent because it would take more than one season for the valley saltbush scrub to reach the maturity level that existed before construction.

Avoidance, Minimization, and/or Mitigation Measures

Valley Saltbush Scrub

Mitigation Measures

In areas where valley saltbush scrub would be affected by construction, mitigation is required. This includes on-site restoration, duff collection before construction and duff redistribution after construction.

Avoidance and Minimization Measures

During construction, valley saltbush scrub would be avoided to the maximum extent possible. The following minimization measures would be used during construction to minimize impacts to this natural community:

- Under the direction of a Caltrans biologist, topsoil would be collected and salvaged from areas where valley saltbush scrub is disturbed.
- Salvaged topsoil would be stored at an appropriate site within the project area.
- Topsoil would be replaced in areas where the disturbance to valley saltbush scrub occurred.

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 Federal Water Pollution Control Act, more commonly referred

to as the Clean Water Act (33 United States Code 1344) is the primary law regulating wetlands and surface waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the U.S. 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 formed during 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 the following regulatory program: discharge of dredged or fill material cannot 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 of Corps of Engineers with oversight by the U.S. Environmental Protection Agency.

U.S. Army of Corps of Engineers issues two types of 404 permits: Standard and General permits. Nationwide permits, a type of General permit, authorizes a variety of minor project activities with no more than minimal effects. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of U.S. Army of Corps of Engineers Standard permits.

For Standard permits, the U.S. Army of Corps of Engineers decision to approve is based on compliance with the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 Code of Federal Regulations Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with U.S. Army of Corps of Engineers, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative that would have fewer adverse effects. The Guidelines state that the U.S. Army of Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have fewer effects on waters of the U.S., and there would not be any other significant adverse environmental consequences.

The executive order for the Protection of Wetlands (Executive Order 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 and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) 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 primarily regulated by the California Department of Fish and Wildlife, the State Water Resources Control Board, and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600 to 1607 of the California Fish and Wildlife 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 the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. California Department of Fish and Wildlife jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian (streamside) vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

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

Affected Environment

Jacalitos Creek is a seasonal stream that flows south through the project site. During the spring months of 2011, a Caltrans biologist delineated potentially jurisdictional waters within the project limits. Jurisdictional waters of the United States are defined as those waters used—currently, in the past, or in the future—for interstate commerce, including all waters subject to the ebb and flow of the tide and all interstate waters including interstate wetlands. This definition also includes interstate lakes, rivers, streams (including seasonal streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, and playa lakes, or natural ponds where the

use, degradation, or destruction of which could affect interstate or foreign commerce. Jurisdictional wetlands generally include swamps, marshes, bogs, natural drainage channels, and seasonal wetlands (Natural Environment Study, January 11, 2012).

Environmental Consequences

During bridge replacement construction, Jacalitos Creek would be disturbed. The project would temporarily impact 0.76 acre and permanently impact 0.10 acre of potentially jurisdictional waters of the United States. No wetlands are within the project area.

Avoidance, Minimization, and/or Mitigation Measures

Avoidance and Minimization Measures

Best management practices would be included so the smallest practical footprint would be in place to minimize temporary, indirect, and permanent impacts to waters of the United States. Work would take place only when Jacalitos Creek is dry.

Mitigation Measures

Two mitigation options are proposed to address the potential loss of aquatic resources if the waterways are determined jurisdictional:

- Preservation, enhancement, and/or restoration of aquatic resources
- Creation of aquatic resources on or off the project site

2.3.3 Plant Species

“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 and/or the California Endangered Species Act. See Threatened and Endangered Species, Section 2.3.5, in this document for information on these species.

This section of the document discusses all other special-status plant species, including California Department of Fish and Wildlife fully-protected species and species of special concern, U.S. Fish and Wildlife Service candidate species, and non-listed California Native Plant Society rare and endangered plants.

Regulatory Setting

The U.S. Fish and Wildlife Service and California Department of Fish and Wildlife have 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 and/or the California Endangered Species Act. See the Threatened and Endangered Species Section 2.3.5 in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including California Department of Fish and Wildlife species of special concern, U.S. Fish and Wildlife Service candidate species, and California Native Plant Society rare and endangered plants.

The regulatory requirements for Federal Endangered Species Act can be found at United States Code 16 Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Wildlife Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Wildlife Code, Section 1900–1913, and the California Environmental Quality Act, Public Resources Code Sections 2100 to 21177.

Affected Environment

A Natural Environment Study was completed on January 11, 2012. The biological study area consisted of a 0.2 mile long segment along State Route 33 and the Jacalitos Creek bridge. Using the Sacramento U.S. Fish and Wildlife Service on-line official species list and the California Department of Fish and Wildlife Natural Diversity Database, the area was researched for potential occurrences of special-status species within the following U.S. Geological Survey 7.5-minute quadrangles: Coalinga, Joaquin Rocks, Domengine Ranch, Gujarral Hill's, Avenal, Harris Ranch, Alcalde Hills, Curry Mountain, and Kreyenhagen Hills.

Hoover's Eriastrum

Hoover's eriastrum is in the California Native Plant Society inventory of rare and endangered plants. This species is found in chenopod scrub, pinyon and juniper

woodland, valley and foothill grassland habitats, and in the Temblor Range on sandy soils and dry grassy areas that below an elevation of 558 feet. Hoover's eriastrum is typically 1 to 6 inches long with tub-like flowers, flat-ending petals, and woolly leaves. They typically bloom from March to July.

This species was observed in and near the project site.

Lemon's Jewel Flower

Lemon's jewel flower is in the California Native Plant Society inventory of rare and endangered plants. The Lemon's jewel flower is an annual herb in the mustard family (*Brassicaceae*). The species is found in pinyon and juniper woodlands and valley and foothill grasslands along dry, exposed slopes. Lemon's jewel flowers are erect with wavy-edged flower petals. They are smooth to sparsely hairy and have purple-colored sepals when in bud. They typically bloom between March and May.

Although the Lemon's jewel flower is known to occur 6.5 miles southwest of the project site, this species was not observed within the project area during surveys.

Showy Golden Madia

The showy golden madia is in the California Native Plant Society inventory of rare and endangered plants. This species is prevalent in California valley and foothill grasslands, mostly on adobe clay or among shrubs. The showy golden madia contains yellow flower heads in open clusters. They typically bloom from March to May.

Although the showy golden madia is known to occur 10 miles southwest of the project site, this species was not observed within the project area during surveys.

Environmental Consequences

There is a low probability that the Lemon's jewel flower and the showy golden madia would grow within the project area.

Botanical surveys identified Hoover's eriastrum growing within the project area. Construction of the project would disturb this species.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required. The following are avoidance and minimization measures.

With the following avoidance and minimization efforts, no impacts to the Lemon's jewel flower or the showy golden madia are anticipated:

- Preconstruction surveys would be done the season prior to construction activities.
- If Lemon's jewel flower or the showy golden madia are found during preconstruction surveys, Caltrans would avoid this species when feasible.

Hoover's Eriastrum

Hoover's eriastrum was identified within the project site. All Hoover's eriastrum that can be avoided during construction would be designated as an environmentally sensitive and protected with high visibility orange mesh fencing.

In areas where avoidance is not possible, the following minimization efforts would be used to lessen impacts to this species during construction activities:

- Under the direction of a Caltrans biologist, topsoil would be collected and salvaged from areas where Hoover's eriastrum would be disturbed.
- Salvaged topsoil would be stored at an appropriate site within the project area.
- Topsoil would be replaced in areas where there was temporary disturbance to Hoover's eriastrum.
- Restored Hoover's eriastrum habitat would be maintained and monitored by a Caltrans biologist with California Department of Fish and Wildlife guidance.

2.3.4 Animal Species

This section discusses potential impacts and permit requirements for 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 Section 2.3.5. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully-protected species and species of special concern, and the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Fisheries Service candidate species.

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and the California Department of Fish and Wildlife are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the California Endangered Species Act or the Federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in

Section 2.3.5 below. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully-protected species and species of special concern, and the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service 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 1600–1603 of the Fish and Wildlife Code
- Section 4150 and 4152 of the Fish and Wildlife Code

Affected Environment

A Natural Environment Study was completed on January 11, 2012. The biological study area consisted of a 0.2 mile long segment along State Route 33 and the Jacalitos Creek. Using the Sacramento U.S. Fish and Wildlife Service on-line official species list and the California Department of Fish and Wildlife Natural Diversity Database, the area was researched for potential occurrences of special-status species within the following U.S. Geological Survey 7.5-minute quadrangles: Coalinga, Joaquin Rocks, Domengine Ranch, Gujarral Hill's, Avenal, Harris Ranch, Alcalde Hills, Curry Mountain, and Kreyenhagen Hills.

Long-Eared Owl

The long-eared owl is listed as a California species of concern and is also protected under the Migratory Bird Treaty Act. They are described as looking similar to the great horned owl but much smaller in size. They have tall ear tufts and a yellowish-brown face with dark vertical stripes that go across their eyes. The long-eared owl can be found in riparian (streamside) habitat but is also known to live in oak thickets and other dense tree strands. Their habitat includes scattered scrubs, annual forbs, and grasses. They feed on mostly voles, other rodents, and small birds. Long-eared owls live in abandoned crow, magpie, hawk, heron, and squirrel nests within trees that have dense canopies usually 10 to 50 feet above ground.

Although long-eared owls are known to occur 2 miles northeast of the project site, this species was not observed within the project area during surveys. The project site does, however, contain suitable nesting habitat for this species.

Burrowing Owl

The burrowing owl is listed as a California species of concern and is also protected under the Migratory Bird Treaty Act. They are described as having long legs, spotted upper-sides, a white throat, and broad, arched eyebrows. The burrowing owl resides in dry grassland, desert, grassy, forbs, and open shrub stages of pinyon juniper and ponderosa pine habitats. They feed on insects but will also consume small mammals, reptiles, birds, and carrion. Burrowing owls live in abandoned rodent or other existing animal burrows. The burrowing owl thermo-regulates and can be seen perching in open sunlight in the early morning and sheltering themselves in shaded areas in the afternoon.

Although burrowing owls are known to occur 3 miles north of the project site, this species was not observed within the project area during surveys. The project site does, however, contain suitable burrowing habitat for this species.

Short-Nosed Kangaroo Rat

The short-nosed kangaroo rat is listed as a California species of concern and is one of the three subspecies of the San Joaquin kangaroo rat. They are described as having a short nose, small forefeet, exceptionally large hind feet, and a long tail. They are larger and have lighter noses than other species of kangaroo rat. The short-nosed kangaroo rat resides in alkali sink habitats that contain level terrain and sandy soils for burrow excavation. They are nocturnal and feed on vegetation and seeds from forbs and grasses.

The short-nosed kangaroo rat is known to occur in the project area, although no trapping efforts were conducted for this species. The closest known occurrence of the short-nosed kangaroo rat is one-half mile north of the project site. The project area contains suitable habitat for this species.

San Joaquin Whipsnake

The San Joaquin whipsnake is listed as a California species of special concern. They are slender and are described as being 3 to 8 feet in length in a variety of colors such as light yellow, olive brown, reddish with faint or no neck bands. The San Joaquin whipsnake resides in a variety of habitats including desert, prairie, scrubland, juniper-grassland, woodland, thorn forest, and farmland. They feed on rodents, lizards,

snakes, birds, turtle eggs, insects, and carrion. San Joaquin whipsnakes live in rodent burrows, bushes, trees, and rock piles.

Although San Joaquin whipsnakes are known to occur 2 miles northeast of the project site, this species was not observed within the project area during surveys. The project site does, however, contain suitable habitat for this species.

Tulare Grasshopper Mouse

The Tulare grasshopper mouse is listed as a California species of special concern. They are grey or pinkish-grey on their backs and white on their undersides. They have short fur and a white-tipped tail. The Tulare grasshopper mouse resides in desert habitats like the Mojave Desert and the southern central valley where there is plenty shrub cover. They feed on scorpions, grasshoppers, crickets, caterpillars, moths, salamanders, lizards, frogs, and small mammals.

Although no trapping efforts were conducted for this species, the Tulare grasshopper mouse is known to occur in the project area. The closest known occurrence of the mouse is one-half mile north of the project site. The project area contains suitable habitat for this species.

American Badger

The American badger is listed as a California species of special concern. They have a heavy body and are a yellowish-grey color with a white stripe from the nose to over the head. Badgers have white cheeks and a black spot in front of each ear. The American badger is uncommon but can be found throughout most of California with the exception of the northern coastal area. They reside in dry shrub forests and herbaceous habitats. They like to use abandoned burrows but dig their own. The American badger is carnivorous and will consume a variety of prey such as rats, mice, chipmunks, ground squirrels, pocket gophers, reptiles, insects, earthworms, eggs, birds, and carrion.

Although American badgers are known to occur 1 mile north of the project site, this species was not observed within the project area during surveys. The project site does, however, contain suitable prey base for this species.

Le Conte's Thrasher

Le Conte's thrasher is listed as a California species special of concern. They are a small bird and have pale coloration and a dark tail. They reside in open desert wash, desert scrub, alkali desert scrub, desert succulent scrub, and Joshua tree habitats. They

feed mostly on insects, seeds, small lizards, and other small vertebrates. Le Conte's thrasher nests in dense, spiny shrubs or densely branched cactus in desert habitat.

Although Le Conte's thrashers are known to occur within the project site, this species was not observed within the project area during surveys. The project site does, however, contain suitable habitat for this species.

Loggerhead Shrike

The loggerhead shrike is a California species of concern. They are a small bird with a small beak and a broad, black mask. They reside in open canopied valley foothill hardwood, valley foothill hardwood conifer, valley foothill riparian, pinyon juniper, juniper, desert riparian, and Joshua tree habitats. They are not found in urbanized areas or cropland. The loggerhead shrike eats mostly insects but will consume other small prey such as birds, mammals, amphibians, fish, and carrion.

Environmental Consequences

Two loggerhead shrikes were seen in the project area on many occasions. Although no other animal species were observed during the spring 2011 surveys, the project area contains suitable habitat, prey base, and nesting areas for other bird species.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required. The following are avoidance and minimization measures for each species.

Long-Eared Owl

Construction activities could impact this species and result in permanent impacts to its habitat. The following avoidance and minimization efforts would be in place:

- Preconstruction surveys would be done to ensure no nesting long-eared owls are affected if construction occurs during nesting season.
- If nesting long-eared owls are observed on-site, then the nest site would be designated an environmentally sensitive area with a no-work area around the nest until a qualified biologist determines the young have left the nest.
- A qualified biologist would monitor the active nest during construction activities.
- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Any tree removal within the project area would be done outside the nesting season.

Burrowing Owl

There is a possibility that this species could occupy a burrow within or adjacent to the project area. If construction activities occur during the breeding season, noise may directly affect breeding activities of neighboring owls. Proposed construction activities could result in the permanent loss of a burrow. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Prior to ground disturbance, preconstruction surveys would search for owls within and adjacent to the project area.
- No disturbance would occur within 160 feet of occupied burrows during the non-breeding season (September 1 through January 31) or within 250 feet during the breeding season (February 1 through August 31) unless a qualified biologist approved by the California Department of Fish and Wildlife verifies that either the birds have not started egg laying and incubation or the juveniles from the occupied burrows are forging independently and are capable of independent survival.
- If burrowing owls are observed prior to construction, mitigation guidelines would include passive relocation and installation of devices that exclude the species.
- Owls would be excluded from the project area and within a 160 foot buffer zone by installing one-way doors in burrow entrances. One-way doors would be left in place for 48 hours to ensure that owls have left the burrows before excavation. The project area would then be monitored daily for the next week to confirm owl use of alternative burrows before excavating burrows in the project area.
- When possible, hand tools would be used to excavate burrows. The burrows would then be examined and refilled. A minimum of 6.5 acres of foraging habitat adjacent or connected to the new area is required for each relocated owl pair.

Short-Nosed Kangaroo Rat

This project could impact the short-nosed kangaroo rat. This species is known to occupy the project area, which contains suitable habitat for the short-nosed kangaroo rat. With the use of the following avoidance and minimization measures, no impacts to this species are expected to occur:

- Preconstruction surveys would be done to avoid potential impacts to this species.
- If occupied suitable habitat is observed during surveys, avoidance measures would be implemented within identified suitable habitat.
- A qualified biologist would be present at the construction site during initial ground disturbance activities.

San Joaquin Whipsnake

The project site contains suitable habitat for this species. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Preconstruction surveys would be done to avoid potential impacts to this species.
- A qualified biologist would be at the construction site during initial ground disturbing activities.

Tulare Grasshopper Mouse

The project site contains suitable habitat for this species. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Preconstruction surveys would be done to avoid potential impacts to this species.
- If occupied suitable habitat is observed during surveys, avoidance measures would be used within identified suitable habitat.
- A qualified biologist would be at the construction site during initial ground disturbing activities.

American Badger

The project site contains suitable habitat for this species. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Preconstruction surveys would be done to avoid potential impacts to this species.
- If occupied suitable habitat is observed during surveys, avoidance measures would be used within identified suitable habitat.
- A qualified biologist would be at the construction site during initial ground disturbing activities.

Le Conte's Thrasher

Using the following avoidance and minimization measures, no impacts to this species are expected to occur:

- Preconstruction surveys would be conducted to ensure no nesting Le Conte's thrasher would be affected if construction is to occur during the nesting season.
- If nesting species are observed within the project area, then the nest would be designated an environmentally sensitive area with a no-work area around the nest until a qualified biologist determines the young have fledged.
- A qualified biologist would monitor the active nest during construction activities.

- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Tree removal within the project area would be done outside of the nesting season.

Loggerhead Shrike

Using the following avoidance and minimization measures, no impacts to this species are expected to occur.

- Preconstruction surveys would be done to ensure no nesting loggerhead shrike would be affected if construction occurs during the nesting season.
- If the loggerhead shrike is observed on-site, the nest site would be designated an environmentally sensitive area with a no-work area around the nest until qualified biologist determines the young have fledged.
- A qualified biologist would monitor the active nest during construction activities.
- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Tree removal within the project area would be done outside of the nesting season.

2.3.5 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (16 United States Code Section 1531, et seq.) Also see 50 Code of Federal Regulations 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 Federal Highway Administration are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service to ensure that no undertaking, funding, permitting or authorizing actions are 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 statement. Section 3 of Federal Endangered Species Act defines "take" as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted the California Endangered Species Act, California Fish and Wildlife Code, Section 2050, et seq. The California Endangered Species Act 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 California Department of Fish and Wildlife is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Wildlife 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 Wildlife Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the California Department of Fish and Wildlife. For species listed under both the Federal Endangered Species Act and California Endangered Species Act requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Wildlife may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Wildlife Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and continental shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, continental shelf fishery resources, and fishery resources in special areas.

Affected Environment

A Natural Environment Study was completed on January 11, 2012. A Biological Assessment was prepared on July 23, 2012. The United States Fish and Wildlife Service prepared a Biological Opinion (see Appendix F) on March 5, 2013. The new information contained in this section is a result of the requirements stated in the Biological Opinion. The biological study area consisted of the Jacalitos Creek bridge and a 0.2-mile-long segment along State Route 33. Using the Sacramento U.S. Fish and Wildlife Service online official species list and the California Department of Fish

and Wildlife Natural Diversity Database, the area was researched for potential occurrences of special-status species within the following U.S. Geological Survey 7.5-minute quadrangles: Coalinga, Joaquin Rocks, Domengine Ranch, Gujarral Hill's, Avenal, Harris Ranch, Alcalde Hills, Curry Mountain, and Kreyenhagen Hills.

San Joaquin Woolly-Threads

The San Joaquin woolly-thread is a federally-listed endangered species and is also in the California Native Plant Society inventory of rare and endangered plants. This species is found in sandy grasslands and alkali sink habitats. San Joaquin woolly-threads are 2 to 12 inches long and are loosely woolly. They are described to have wavy, narrow, oblong leaves and yellow flower heads clustered at their branch tips. They typically bloom from February to May.

Although the San Joaquin woolly-thread was not found during surveys, the project site does contain suitable habitat for this species.

California Jewel Flower

The California jewel flower is an annual herb that is part of the mustard family (*Brassicaceae*). This species is prevalent within California and is found in flats and gentle slopes in non-alkaline grasslands. Historically, it has been found in various valley habitats in both the Central Valley and the Carrizo Plain. California jewel flowers are pouch-like at the base with white and purplish flowers and oval shaped clasping leaves. They typically bloom from February to May.

The California jewel flower, a federally- and state-listed endangered species, is also in the California Native Plant Society inventory of rare and endangered plants. Although the California jewel flower is known to occur 3 miles upstream in the mouth of Jacalitos Canyon, this species was not observed in the project area during surveys. The project site does, however, contain suitable habitat for this species.

San Joaquin Antelope Squirrel

The San Joaquin antelope squirrel is a state-listed threatened species. They are described as having tiny rounded ears and streamlined spindle-shaped bodies with short legs. They are tan-colored with a light stripe along their sides and have a light grey underbelly. The San Joaquin antelope squirrel can be found 200 to 1200 feet above sea level in the western San Joaquin Valley on sparsely vegetated loam soils. Their habitat includes scattered scrubs, annual forbs (herbs), and grasses. They feed on a variety of things throughout the year including insects, seeds, annual grasses and forbs, and small vertebrates. San Joaquin antelope squirrels live in burrows they dig

themselves or alter existing kangaroo rat burrows. They also use their environment by obtaining cover from rocks and other topographic features.

Although San Joaquin antelope squirrels are known to occur 3 miles east of the project site, this species was not observed within the project area during surveys. The project site does, however, contain suitable habitat for this species.

Blunt-Nosed Leopard Lizard

The blunt-nosed leopard lizard is federally listed as an endangered species and state listed as endangered and a fully-protected species. The lizard is described as a large, ranging from 3.4 to 4.7 inches long. Color varies depending on the surrounding soils and vegetation (yellowish, light grey-brown, or dark brown). The blunt-nosed leopard lizard is also known to have a color pattern on their backs that consist of rows of dark spots interrupted by a series of 7 to 10 white, cream colored, or yellow bands. Blunt-nosed leopard lizards can be found at elevations of 100 to 2400 feet above sea level on alkali flats, desert washes, arroyos, canyons, and low foothills. Their habitat includes sparsely vegetated shrubs and grassland, and broad, sandy washes. They are carnivorous foragers that feed on grasshoppers, cicadas, and small lizards. Blunt-nosed leopard lizards hibernate in the winter months and are active from March to June or July.

Although full protocol surveys were done for the blunt-nosed leopard lizard, this species was not observed within the project area. The project site does, however, contain suitable habitat for this species.

Giant Kangaroo Rat

The giant kangaroo rat is federally and state listed as an endangered species. They are described as weighing between 4.6 and 6.4 ounces and have large hind limbs. They have short necks, large flattened heads, and a long tail. Giant kangaroo rats can be found in colonies on the western side of the San Joaquin Valley. Their habitat includes fine, sandy soil that supports sparse annual grass and forbs vegetation and low-density alkali scrub. They are nocturnal and primarily feed on seeds from pepper grass and filaree.

The giant kangaroo rat is known to occur in the project area, although no trapping efforts were conducted for this species. The closest known occurrence of the giant kangaroo rat is 24 miles northwest of the project site. The project area contains suitable habitat for this species.

San Joaquin Kit Fox

The San Joaquin kit fox is federally listed as an endangered species and state listed as threatened. They are the smallest canid species in North America, having an average length of 31 inches and an average height of 12 inches. They are described as having small, slim bodies, long ears, a narrow nose, and a long bushy black-tipped tail. Their colors vary from buff, tan, grizzled, or yellow-grey. San Joaquin kit foxes are found in the southern half of California living within annual grasslands or grassy, open stages of vegetation dominated by shrubs and brush. They are mostly nocturnal but can be seen in the daytime during cool weather. They are carnivorous and like to eat desert cottontails, rodents, insects, reptiles, birds, bird eggs, and vegetation.

The San Joaquin kit fox is known to occur in the project area, although no night surveys were conducted for this species. No active dens were seen during daytime surveys. The closest known occurrence of the San Joaquin kit fox is 1 mile northeast of the project site. The project area contains suitable habitat for this species.

Swainson's Hawk

The Swainson's hawk is state listed as a threatened species and is protected by the Migratory Bird Treaty Act. This species is a summer migrant to the Central Valley and typically winters in South America. They are described as being slender with long, pointed wings and have dark flight feathers. They occur in a variety of color morphs and have clean, whitish undersides with a neat, dark breast. Swainson's hawks forage in grasslands, grain or alfalfa fields, and livestock pastures. They roost in trees and sometimes in the ground. They eat mice, gophers, ground squirrels, rabbits, large arthropods, amphibians, reptiles, and birds.

A Swainson's hawk was observed within the project area during surveys. The project area contains suitable nesting habitat for this species.

Environmental Consequences

San Joaquin Woolly-Threads and the California Jewel Flower

A low probability exists that either species would grow within the project area.

San Joaquin Antelope Squirrel

Although San Joaquin antelope squirrels are known to occur 3 miles east of the project site, this species was not observed within the project area during surveys. The project site does, however, contain suitable habitat for this species.

Blunt-Nosed Leopard Lizard

The project will impact 6.34 acres of habitat that is suitable for this species. Full protocol surveys were done during the 2011 survey season. No blunt-nosed leopard lizards were observed in the project area.

Giant Kangaroo Rat

No formal trapping efforts were done for the giant kangaroo rat. During surveys for other species, small mammal tracks and burrows were observed in the project area. The Pleasant Valley Ecological preserve, owned by the California Department of Fish and Wildlife, is one mile north of the project site. Giant kangaroo rats were not observed on the preserve during trapping efforts. However, burrows may be destroyed as a result of the project. The project area contains suitable habitat for this species.

San Joaquin Kit Fox

The project area is within documented San Joaquin kit fox habitat. Although this species has been recorded in the area, the closest occurrence being one mile northeast of the project site, no active dens were observed during surveys for this species. However, dens could be destroyed as a result of the project. The project would impact up to 6.34 acres of San Joaquin kit fox habitat. All impacts are considered permanent since temporary impacts to vegetation would take more than two seasons to reach the maturity that existed before construction.

Swainson's Hawk

This species was seen within the project area in 2011 during the spring surveys. The project area contains suitable nesting habitat for the Swainson's hawk, although no Swainson's hawk nests were observed during surveys.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans would include special provisions that include specific avoidance and minimization measures for each listed species. These measures would serve to avoid or minimize effects that have the potential to occur within the project area.

Prior to ground-disturbing activities, a United States Fish and Wildlife Service-approved biologist would do a worker environmental awareness program for all construction crews. This training would provide workers with information on their responsibilities with regard to listed species. Training would be repeated for all new crew members and once a year for crew members working within the listed species

habitat. Training materials and records of crew members taking the training would be submitted to the United States Fish and Wildlife Service in advance for approval.

When the project is built, to promote restoration, all habitat areas such as storage and staging sites temporarily affected by construction would be replanted after being restored to original grade and contour. Appropriate methods and plant species used for replanting would be determined on a site-specific basis in consultation with the United States Fish and Wildlife Service and/or other re-vegetation experts.

Daily, contractors would remove and dispose of trash off-site.

San Joaquin Wolley-Threads and the California Jewel Flower

No mitigation is required for these species. With the following avoidance and minimization efforts, no impacts to the San Joaquin wolley-threads or the California jewel flower are anticipated:

- Prior to groundbreaking, protocol-level surveys would be done for both species within the appropriate blooming seasons and in accordance with United States Fish and Wildlife Service protocols.
- If these species are found during preconstruction surveys, Caltrans would notify the United States Fish and Wildlife Service and the California Department of Fish and Wildlife to reinitiate consultation and discuss what conservation measures would be used.

San Joaquin Antelope Squirrel

No mitigation is required for this species. An avoidance and minimization effort would be a qualified biologist who monitors the project area during construction when initial ground disturbing activities take place. No impacts to the San Joaquin antelope squirrel are anticipated.

Blunt-Nosed Leopard Lizard

Although the project would impact 6.34 acres of suitable habitat, no take is anticipated with the use of the following avoidance and minimization measures:

- A biological monitor would be on-site during initial ground disturbing activities.
- Protocol-level surveys for this species would be done no later than one year prior to construction in accordance with the California Department of Fish and Wildlife's Survey methodology. If this species is found within the project area, the United States Fish and Wildlife Service would be contacted to discuss ways to

proceed with the project, reinitiate consultation, and avoid take to the maximum extent possible.

Giant Kangaroo Rat

Mitigation Measures

The project would affect 6.34 acres of habitat. Currently there are no California Department of Fish and Wildlife or United States Fish and Wildlife-approved mitigation banks for the giant kangaroo rat. Although mitigation options for this species are limited, compensation purchased for the San Joaquin kit fox would also benefit the giant kangaroo rat. Currently, it is proposed to buy habitat for the San Joaquin kit fox at the Kreyenhagen Hills Conservation Bank in Fresno County.

Avoidance and Minimization Measures

No impacts to this species are expected to occur while using avoidance and minimization efforts. Preconstruction surveys would be required no more than 30 calendar days prior to the start of construction to avoid potential impacts to this species. If occupied suitable habitat is observed during surveys, avoidance measures would be used within identified suitable habitat where feasible.

To prevent the accidental entrapment of this species during construction, all open trenches and holes would be covered at the close of each working day. A detailed inspection for trapped giant kangaroo rats would be completed prior to filling any trenches or holes. Pipes would be inspected prior to being buried, capped, or moved. If a giant kangaroo rat is discovered, that section of pipe would not be moved until the United States Fish and Wildlife Service was consulted, and the animal was allowed to leave peacefully.

In the case of an injured or dead giant kangaroo rat, Caltrans would contact the United States Fish and Wildlife Service within one day of discovery. Injured animals would be cared for by a licensed veterinarian or a Caltrans biologist. In the case of a dead giant kangaroo rat, the animal would be preserved, bagged, and labeled. Carcasses would be held in a secure location until the United States Fish and Wildlife Service was notified.

San Joaquin Kit Fox

Mitigation Measures

The project would affect 6.34 acres of habitat. All impacts are considered permanent since temporary impacts to vegetation would take more than two seasons for

replanting to reach maturity. Mitigation measures include compensation for loss of habitat through purchase of credits from a mitigation bank at a 3 to 1 ratio. The proposed mitigation bank is Kreyenhagen Hills Conservation Bank in Fresno County.

Avoidance and Minimization Measures

The following avoidance and minimization efforts are required:

- Preconstruction surveys would be done no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and construction activities or any project activity likely to impact this species.
- Surveys would be conducted within the project area and a 200-foot-wide area outside the project footprint to identify habitat features.
- If natal/pupping dens are discovered within or 200 feet from the project boundary, the U.S. Fish and Wildlife Service would be immediately notified.
- Active dens would not be excavated during natal (birth) season (January 1 to June 14). A qualified biologist, using a tracking medium or a remote sensor camera, would monitor potential dens for three consecutive nights and then submit monitoring results in a letter to the United States Fish and Wildlife Service. The qualified biologist, following approval by the United States Fish and Wildlife Service, would also oversee the hand excavation of any dens determined vacant. Results of den excavation and exclusion activities would be submitted in a letter to the United States Fish and Wildlife Service.
- A den exclusion zone delineated by flagged stakes should have a 50-foot radius around potential dens and a 100-foot radius around known dens as measured outward from the entrance or cluster of entrances.
- Known dens within the 100-foot radius of the project footprint will be protected by an exclusion zone marked by fencing/flagging that does not prevent access to the den by the San Joaquin kit fox. Acceptable designs will have openings for the kit fox but will keep humans and equipment out (wooden posts connected with caution tape, orange construction cones, orange construction fencing with a mesh size less than 2 inches in diameter with gaps every 50 feet). Fencing/flagging will be maintained until all construction-related disturbances have been terminated. At that time, all fencing/flagging will be removed to avoid attracting attention to the dens.
- Disturbance to all dens would be avoided to the maximum extent possible.

- A qualified biologist would be at the construction site during initial ground disturbing activities.
- To the extent possible, a biologist would be on-call during all construction periods when not present on-site.
- The *United States Fish and Wildlife Service Standard Measures for Protection of the San Joaquin Kit Fox for Prior to or During Ground Disturbance, Construction, and On-Going Operational Requirements* would also be used.
- In the case of an injured or dead San Joaquin kit fox, Caltrans would contact the United States Fish and Wildlife Service within one day of discovery. Injured animals would be cared for by a licensed veterinarian or a Caltrans biologist. In the case of a dead San Joaquin kit fox, the animal would be preserved, bagged, and labeled. Carcasses would be held in a secure location until the United States Fish and Wildlife Service was notified.

Swainson's Hawk

No impacts to the Swainson's hawk are anticipated while using the following avoidance and minimization measures:

- Preconstruction surveys would ensure no nesting Swainson's hawks would be affected if construction occurs during the nesting season.
- If nesting Swainson's hawks are observed on-site, the nest site would be designated an environmentally sensitive area with a no-work area around the nest until a qualified biologist determines that the young have fledged.
- A qualified biologist would monitor the active nest during construction activities.
- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Tree removal within the project area would be done outside of the nesting season.

2.4 Climate Change

Due to evolving climate change legislation, this section of the environmental document has been updated to reflect the most recent information available concerning climate change research. The project-specific analysis and conclusions represented in the draft environmental document remain the same.

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of

scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988, has led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emission of greenhouse gases generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of greenhouse gas emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles) make up the largest source (second to electricity generation) of greenhouse gas emitting sources. The dominant greenhouse gas emitted is CO₂, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change. “Greenhouse Gas Mitigation” is a term for reducing greenhouse gas emissions in order to reduce or “mitigate” the impacts of climate change. “Adaptation” refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).¹

There are four primary strategies for reducing greenhouse gas emissions from transportation sources: 1) improving the transportation system and operational efficiencies; 2) reducing growth of vehicle miles traveled (VMT); 3) transitioning to lower greenhouse gas emitting fuels; and 4) improving vehicle technologies. To be most effective, all four strategies should be pursued collectively. To be most effective all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

¹ http://climatechange.transportation.org/ghg_mitigation/

Regulatory Setting

State

With the passage of several pieces of legislation, including State Senate and Assembly bills and executive orders, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley. Vehicular Emissions: Greenhouse Gases 2002. This bill requires the California Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year. In June 2009, the U.S. Environmental Protection Agency Administrator granted a Clean Air Act waiver of preemption to California. This waiver allowed California to use its own greenhouse gas emission standards for motor vehicles beginning with 2009-model year. California agencies will be working with federal agencies to conduct joint rulemaking to reduce greenhouse gas emissions for passenger cars in model years 2017-2025.

Executive S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger). The goal of this executive order is to reduce California's greenhouse gas emissions to 1) year 2000 levels by 2010; 2) year 1990 levels by the 2020; and 3) 80 percent below the year 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32, the Global Warming Solutions Act of 2006, Núñez and Pavley: Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals as outlined in Executive Order S-3-05 while further mandating that the California Air Resources Board create a scoping plan that includes market mechanisms, and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gasses.”

Executive Order S-20-06 (signed on October 18, 2006 by former Governor Arnold Schwarzenegger) further directs state agencies to use Assembly Bill 32 and the recommendations made by the California Climate Action Team.

Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger) set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least ten percent by the year 2020.

Senate Bill 97 (SB 97) Chapter 185, 2007: required the Governor's Office of Planning and Research to develop recommended amendments to the California Environmental Quality Act Guidelines for addressing greenhouse gas emissions. The amendments became effective on March 18, 2010.

Caltrans Director's Policy 30 Climate Change (approved June 22, 2012): This policy is intended to establish a Caltrans policy that would ensure coordinated efforts to incorporate climate change into Caltrans' decisions and activities. This policy contributes to the Caltrans stewardship goal to preserve and enhance California's resources and assets.

Federal

Although climate change and greenhouse gas reduction is a concern at the federal level, currently no regulations or legislation that have been enacted specifically addressing greenhouse gas emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency nor the Federal Highway Administration has announced explicit guidance or methodology to conduct project-level greenhouse gas analysis. As stated on the Federal Highway Administration's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process would help decision-making and improve efficiency at the program level and would inform the analysis and stewardship needs of project level decision-making. Climate change considerations can easily be integrated into many planning factors such as supporting economic vitality and global efficiency; increasing safety and mobility; enhancing the environment; promoting energy conservation; and improving the quality of life.

The four strategies set forth by the Federal Highway Administration to lessen climate change impacts do correlate with efforts that the state has undertaken and is undertaking to deal with transportation and climate change. The strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in the growth of vehicle hours traveled.

Climate change and its associated effects are also being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the

“National Clean Car Program” and Executive Order 13514- *Federal Leadership in Environmental, Energy and Economic Performance*.

Executive Order 13514 is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also direct federal agencies to participate in the interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act and that the U.S. Environmental Protection Agency has the authority to regulate greenhouse gas. The Court held that the U.S. Environmental Protection Agency Administrator must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the U.S. Environmental Protection Agency Administrator signed two distinct findings on greenhouse gases under Section 202(a) of the Clean Air Act:

Endangerment Finding: The administrator found that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)—in the atmosphere threaten the public health and welfare of current and future generations.

Cause or Contribution Finding: The Administrator found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution that threatens public health and welfare.

Although these findings did not in themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. Environmental Protection Agency’s *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles*, which was published on September 15, 2009². On May 7, 2010, the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* was published in the Federal Register.

² <http://www.epa.gov/climatechange/endangerment.html>

The U.S. Environmental Protection Agency and the National Highway Traffic Safety Administration are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced greenhouse gas emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever greenhouse gas regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle greenhouse gas regulations. These steps were outlined by President Obama in a Presidential Memorandum on May 21, 2010.³

The final combined U.S. Environmental Protection Agency and National Highway Traffic Safety Administration standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards will cut greenhouse gas emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016).

On November 16, 2011, U.S. Environmental Protection Agency and the National Highway Traffic Safety Administration issued their joint proposal to extend this national program of coordinated greenhouse gas and fuel economy standards to model years 2017 through 2025 for passenger vehicles.

Project Analysis

An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of greenhouse gas.⁴ In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (California Environmental Quality Act Guidelines sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information

³ <http://epa.gov/otag/climate/regulations.htm>

⁴ This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the SCAQMD (Chapter 6: The CEQA Guide, April 2011) and the U.S. Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

The Assembly Bill 32 Scoping Plan contains the main strategies California will use to reduce greenhouse gas. As part of its supporting documentation for the draft scoping plan, the Air Resources Board released the greenhouse gas inventory for California (see Figure 2-1). The forecast, last updated on October 28, 2010, is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the scoping plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the greenhouse gas inventory for 2006, 2007, and 2008.

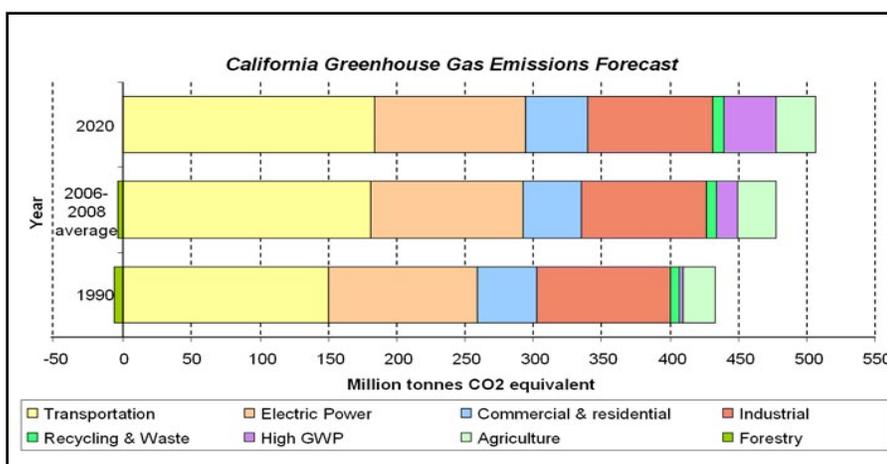


Figure 2-1 California Greenhouse Gas Inventory

Taken from: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emission reduction and climate change. Recognizing that 98 percent of California’s greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006 (see Climate Action Program at Caltrans, December 2006).⁵

⁵ Caltrans Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

One of the main strategies in the Caltrans Climate Action Program to reduce greenhouse gas emissions is to make California's transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 2-2). To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors, greenhouse gas emissions, particularly CO₂, may be reduced.

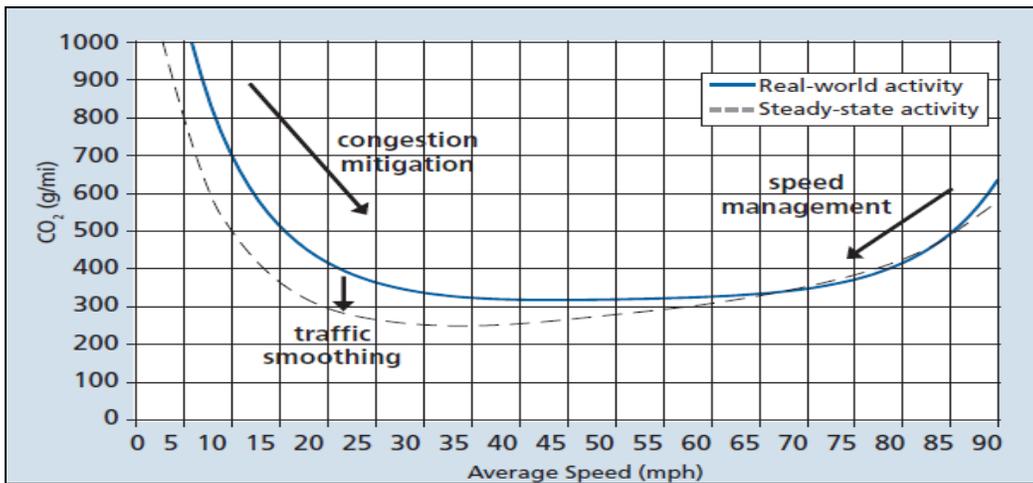


Figure 2-2 Possible Effect of Traffic Speeds in Reducing On-Road CO₂ Emissions⁶

Caltrans proposes to replace the existing Jacalitos Creek bridge four miles east of the city of Coalinga in Fresno County. One Build Alternative and the No-Build Alternative are under consideration.

The purpose of the proposed project is to correct seismic damage and foundation settlement by replacing the existing Jacalitos Creek bridge with a wider structure that meets Caltrans' current roadway structure standards. Construction greenhouse gas emissions are unavoidable, but the project as proposed would not increase or change long-term traffic volumes and is not expected to cause an overall increase in operational greenhouse gas emissions.

⁶ Traffic Congestion and Greenhouse Gases: Matthew Barth and Kanok Boriboonsomsin (TR News 268 May-June 2010) <<http://onlinepubs.trb.org/onlinepubs/trnews/trnews268.pdf>>

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction greenhouse gas emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved Transportation Management Plans, and changes in materials, the greenhouse gas emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events. Construction activity may generate a temporary increase in mobile source air toxics emissions. The use of diesel retrofit technologies outlined in the Congestion Mitigation and Air Quality Improvement Program provisions (technologies that are designed to lessen a number of mobile source air toxics) would help lower short-term mobile source air toxics. Compliance with the San Joaquin Valley Unified Air Pollution Control District rules and regulations during construction would reduce construction-related air quality impacts.

Construction mitigation includes strategies that reduce engine activity or reduce emissions per unit of operating time. Operational agreements that reduce or redirect work or shift times to avoid community exposures would have positive benefits when sites are near vulnerable populations. The use of technological adjustments to equipment, such as off-road dump trucks and bulldozers, would also be appropriate strategies. These technological fixes could include particulate matter traps, oxidation catalysts, and other devices that provide an after-treatment of exhaust emissions. The use of clean fuels, such as ultra-low sulfur diesel, also would be a very cost-beneficial strategy. The Environmental Protection Agency has listed a number of approved diesel retrofit technologies; many of these can be deployed as emissions mitigation measures for equipment used in construction.

During construction, the project would generate air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling, and various other activities. The impacts of these activities would vary each day as

construction progresses. Dust and odors could cause occasional annoyance and complaints. The project would be subject to a dust control permit from the San Joaquin Unified Air Pollution Control District. Caltrans Standard Specifications pertaining to dust control and dust palliative requirement is a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 14-9.01 “Air Pollution Control” and Section 14-9.03 “Dust Control,” require the contractor to comply with the San Joaquin Valley Air Pollution Control District rules, ordinances, and regulations.

California Environmental Quality Act Conclusion

While construction would result in a slight increase in greenhouse gas emissions during construction, Caltrans expects there would be a reduction in greenhouse gas emissions with the Build Alternatives when compared to the No-Build conditions. However, it is Caltrans’ determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and California Environmental Quality Act significance, it is too speculative to make a determination on the project’s direct impact and its contribution on the cumulative scale to climate change. Nonetheless, Caltrans is taking further measures to help reduce energy consumption and greenhouse gas emissions. These measures are outlined in the following section.

Assembly Bill 32 Compliance

Caltrans continues to be actively involved on the Governor’s Climate Action Team as the Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in Assembly Bill 32. Many of the strategies Caltrans is using to help meet the targets in Assembly Bill 32 come from the California Strategic Growth Plan, which is updated each year. Former Governor Arnold Schwarzenegger’s Strategic Growth Plan calls for a \$222 billion infrastructure improvement program to fortify the state’s transportation system, education, housing, and waterways, including \$100.7 billion in transportation funding during the next decade. The Strategic Growth Plan targets a significant decrease in traffic congestion below today’s level and a corresponding reduction in greenhouse gas emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together are expected to reduce congestion. The Strategic Growth Plan relies on a complete systems approach to attain CO₂ reduction goals: system monitoring and

evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in Figure 2-3, the Mobility Pyramid.



Figure 2-3 Mobility Pyramid

Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light- and heavy-duty trucks; Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by the U.S. Environmental Protection Agency and Air Resources Board.

Table 2.2 shows Caltrans and statewide efforts that Caltrans is implementing to reduce greenhouse gas emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

To the extent that it is applicable or feasible for the project and through coordination with the project development team, the following measures would also be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from the project:

Caltrans and the California Highway Patrol are working with regional agencies to implement intelligent transportation systems to help manage the efficiency of the existing highway system. Intelligent transportation systems commonly include such measures as electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of surface transportation systems.

Adaptation Strategies

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects would vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Table 2.2 Climate Change Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO ₂ Savings (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies and other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements and Intelligent Transportation System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	0.07	2.17
Mainstream Energy and Greenhouse Gas into Plans and Projects	Office of Policy Analysis and Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated

Strategy	Program	Partnership		Method/Process	Estimated CO ₂ Savings (MMT)	
		Lead	Agency		2010	2020
Educational and Information Program	Office of Policy Analysis and Research	Interdepartmental, CalEPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening and Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.045 0.0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	0.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 0.36	4.2 3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BTH, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.18

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality, the Office of Science and Technology Policy, and the National Oceanic and Atmospheric Administration, released its interagency report October 14, 2010 outlining recommendations to President Barack Obama for how federal agency policies and programs can better prepare the United States to respond to the impacts of climate change. The Progress Report of the Interagency Climate Change Adaptation Task Force recommends that the federal government implement actions to expand and strengthen the nation's capacity to better understand, prepare for, and respond to climate change.

Climate change adaptation must also involve the natural environment as well. Efforts are underway on a statewide level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, then-Governor Schwarzenegger signed Executive Order S-13-08 that directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This executive order set in motion several agencies and actions to address the concern of sea level rise.

The California Natural Resources Agency was directed to coordinate with local, regional, state and federal public and private entities to develop The California Climate Adaptation Strategy (Dec 2009),⁷ which summarizes the best-known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to Executive Order S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including the Environmental Protection Agency; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into the following strategies for different sectors: public health; biodiversity and habitat; ocean and coastal resources; water management;

⁷ <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

agriculture; forestry; and transportation and energy infrastructure. As data continues to be developed and collected, the state's adaptation strategy would be updated to reflect current findings.

The Resources Agency was also directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010⁸ to advise how California should plan for future sea level rise. The report would include the following:

- Relative sea level rise projections for California, Oregon and Washington that take into account coastal erosion rates, tidal impacts, El Nino and La Nina events, storm surge and land subsidence rates
- Range of uncertainty in selected sea level rise projections
- Synthesis of existing information on projected sea level rise impacts to state infrastructure such as roads, public facilities and beaches, natural area, and coastal and marine ecosystems
- Discussion of future research needs for sea level rise

Before release of the final Sea Level Rise Assessment Report, all state agencies planning to build projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data.

Interim guidance has been released by the Coastal Ocean Climate Action Team as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

All projects that have filed a Notice of Preparation as of the date of Executive Order S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. This project did not require a Notice of Preparation and is programmed for construction in 2015.

⁸ The Sea Level Rise Assessment report is currently due to be completed in 2012 and will include information for Oregon and Washington State as well as California.

Also, Executive Order S-13-08 directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system and economy of the state. Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change effects, Caltrans has not been able to determine what change, if any, may be made to its design standards for transportation facilities. Once statewide planning scenarios become available, Caltrans would be able to review its current design standards to determine what changes, if any, may be warranted to protect the transportation system from sea level rise.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in using Executive Order S-13-08 and is mobilizing to respond to the National Academy of Science Sea Level Rise Assessment Report.

Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods that include, but is not limited to, project development team meetings and interagency coordination meetings. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

Coordination with the California Department of Fish and Wildlife

On February 22, 2011, Caltrans biologist Dena Gonzalez e-mailed California Department of Fish and Wildlife liaison Laura Peterson Diaz inquiring about the presence of giant kangaroo rats at the Pleasant Valley Ecological Preserve. Diaz responded that there have been no recent sightings of giant kangaroo rats at the Pleasant Valley Ecological Preserve. She also stated that other species of concern within the project area are the San Joaquin kit fox, blunt-nosed leopard lizard, San Joaquin antelope squirrel, and short-nosed kangaroo rat.

On March 2, 2011, Caltrans biologist Dena Gonzalez e-mailed California Department of Fish and Wildlife botanist Ellen Cypher to inquire about the potential reference sites and blooming periods for the California jewel flowers and San Joaquin woolly threads. On March 4, 2011, Cypher responded that there were recent sightings of San Joaquin woolly-threads at the Pleasant Valley Ecological Preserve. On March 16, 2011, Gonzalez and URS biologist Lori Bono met with Cypher at the Pleasant Valley Ecological Preserve to view the San Joaquin woolly-threads.

On June 23, 2011, Caltrans biologist Dena Gonzalez e-mailed California Department of Fish and Wildlife liaison Laura Peterson Diaz requesting information about the sensitive species found at the Pleasant Valley Ecological Preserve. On July 19, 2011, Diaz informed Gonzalez that all species at the Pleasant Valley Ecological Preserve were updated to the California Natural Diversity Database.

Coordination with the U.S. Fish and Wildlife Service

On March 8, 2011, Caltrans biologist Dena Gonzalez e-mailed U.S. Fish and Wildlife Service biologist Jen Schofield asking if negative trapping (no animal captured) results for the giant kangaroo rat would be sufficient for Caltrans to assume absence of this species (aerials of the project site were included in the e-mail). Schofield responded that the U.S. Fish and Wildlife Service would not accept negative survey/trapping results as proof of absence of the species at the project location, given the project site, species, and population conditions always change over time.

On March 10, 2011, United State Fish and Wildlife Service biologist Jen Schofield e-mailed Caltrans biologist Dena Gonzalez stating that the project site does contain suitable habitat for the giant kangaroo rat and sightings of this species were recorded in the past.

On June 27, 2011, Caltrans biologists Gonzalez and Reagen O’Leary visited the project site with U.S. Fish and Wildlife Service biologist Jen Schofield to discuss the giant kangaroo rat, potential trapping efforts, and the amount of vegetation that would be removed.

On July 13, 2011, U.S. Fish and Wildlife Service biologist Jen Schofield e-mailed Caltrans biologist Dena Gonzalez stating that the project site would be considered suitable habitat for the giant kangaroo rat. This determination was made because the project area is within the historical range of the species and because evidence of small mammals was found within the project location. Trapping would not be necessary for this project since it is assumed the giant kangaroo rat could live within the project area.

On July 19, 2011, Caltrans biologist Dena Gonzalez e-mailed United States Fish and Wildlife Service biologist Jen Schofield asking if the Kreyenhagen Hills Conservation Bank could be used for San Joaquin kit fox and giant kangaroo rat mitigation. On September 1, 2011, Schofield responded, saying that the United States Fish and Wildlife Service would prefer that Caltrans not use the Kreyenhagen Hills Conservation Bank and instead should purchase land next to the Pleasant Valley Ecological Preserve. On September 7, 2011, Gonzalez responded that Caltrans prefers to compensate at the Kreyenhagen Hills Conservation Bank since it is 8 miles southwest of the project site.

On July 26, 2012, the United States Fish and Wildlife Service received a letter from Caltrans requesting initiation of formal consultation for the project. The request

included a Caltrans Biological Assessment (*Jacalitos Creek Bridge Replacement*, July 23, 2012).

On September 6, 2012, the United States Fish and Wildlife Service e-mailed Caltrans with a request for further information regarding the Biological Assessment. On September 12, 2012, Caltrans responded to the request.

On September 18, 2012, Caltrans e-mailed the United States Fish and Wildlife Service to ask if the Biological Assessment was deemed complete. The United States Fish and Wildlife Service replied the same day to confirm the Biological Assessment was deemed complete on September 12, 2012.

On January 3, 2013, the United States Fish and Wildlife Service e-mailed Caltrans requesting clarification on the Biological Assessment. Caltrans responded to this request on January 17, 2013.

On February 22, 2013, Caltrans e-mailed the United States Fish and Wildlife Service requesting the project be appended to the Programmatic Agreement.

On February 25, 2013, the United States Fish and Wildlife Service and Caltrans held a teleconference to discuss changing the blunt-nosed leopard lizard determination to more appropriately reflect that the project may affect, but is not likely to adversely affect, the species. Caltrans later e-mailed the United States Fish and Wildlife Service to confirm this alteration, and that it would conduct protocol surveys for the blunt-nosed leopard lizard in the season prior to construction.

On March 5, 2013, the United States Fish and Wildlife Service sent Caltrans a Biological Opinion (see Appendix F).

Coordination with Native American Groups

In April 2011, a Sacred Lands Inventory Search was submitted to the Native American Heritage Commission requesting that they conduct a search of their files for any resources not previously identified during the archeological records search conducted at the Southern San Joaquin Valley Information Center. The Native American Heritage Commission provided a list of potential tribal contacts. In three separate actions, including e-mails and letters, 11 Native American tribes or individuals were informed of the project and provided with mapping and design details. The outreach did not result in the identification of additional resources.

The Dumna Wo-Wah and the Amah Mutsun Band of Ohlone responded to the request for consultation by e-mail and indicated they were not aware of specific resources within the project, and that the project was beyond their ethnographic area. They recommended contact with the Santa Rosa Rancheria. The Santa Rosa Rancheria, also included in the initial outreach, contacted Caltrans to say the tribe was aware of resources in the area, and that they had worked with other agencies on projects nearby. They also requested and were included as participants during the Extended Phase I archeology study. Additional consultation may be done if substantial project changes occur.

Chapter 4 List of Preparers

This document was prepared by the following Caltrans Central Region staff:

Rajeev Dwivedi, Associate Engineering Geologist. Ph.D., Environmental Engineering, Oklahoma State University, Stillwater; 19 years of environmental technical studies experience. Contribution: Prepared Water Quality Assessment Report, Noise Compliance, and Air Quality Compliance Memos.

Tom Fisher, Central Region Hydraulics Engineer. B.S., Civil Engineering, California State University, San Jose; 21 years of hydraulic engineering experience. Contribution: Prepared Location Hydraulic Study and Floodplain Compliance.

Gurjot Gill, P.E., Transportation Engineer. M.S., Civil Engineering, California State University, Fresno; 4 years of transportation engineering experience; 1 year of structural engineering experience. Contribution: Design Engineer.

Dena Suzanne Gonzalez, Environmental Planner: Natural Sciences. B.A., Biology, California State University, Fresno; 9 years of biological and habitat impact assessment. Contribution: Wrote Natural Environmental Study and Biological Assessment.

Susan Greenwood, Associate Environmental Planner. B.S., Environmental Health Science, California State University, Fresno; 20 years environmental health, hazardous waste, and hazardous material management experience. Contribution: Prepared Preliminary Site Assessment for Hazardous Waste.

Suzanne K. Holdridge, Project Manager. Pre-Legal, California State University, Los Angeles; 31 years of state service, 14 years of Right of Way experience, 12 years of project management experience. Contribution: Project Manager.

David Lanner, Associate Environmental Planner. B.F.A., Art, Utah State University; 20 years of cultural resources experience. Contribution: Prepared Historic Property Survey Report with attached Archaeological Survey Report.

Jennifer Lugo, Associate Environmental Planner. M.A., History, California State University, Fresno; B.A., History, Minor Political Science, California State University, Fresno; 7 years of environmental planning experience; 1 year of architectural history experience. Contribution: Environmental Coordinator; prepared environmental document.

Mandy Marine, Associate Environmental Planner/Native American Coordinator, Archaeologist. B.A., Anthropology, California State University, Fresno; more than 20 years of California archaeology experience. Contribution: Conducted Native American Coordination.

Khalil Massoudi, Civil Engineer. B.S., Civil Engineering, University of Texas, San Antonio; 14 years design experience; 7 years hydraulics experience. Contribution: Prepared Hydraulics Recommendation.

Anthony Nedwick, P.E., Transportation Engineer-Civil, Range D. B.S., Civil Engineering, California Polytechnic State University, San Luis Obispo; 14 years of experience in Structure Hydraulics and Hydrology. Contribution: Prepared the Final Hydraulics Report

G. William “Trais” Norris, III, Senior Environmental Planner. B.S., Urban and Regional Planning, California State Polytechnic University, Pomona; 11 years of land use, housing, redevelopment, and environmental planning experience. Contribution: Environmental Manager, Branch Chief, Sierra Pacific Environmental Analysis Branch.

Eduardo Ortega, Jr., P.E., Transportation Engineer-Civil, Range D. B.S., Civil Engineering, University of California at Davis; 10.5 years of experience of designing bridges and other structures; 1.5 years of experience inspecting bridge construction. Contribution: Designed proposed new bridge that meets design and environmental standards.

Raymond Segura, Transportation Engineer. B.S., Construction Management, California State University, Fresno; 12 years of landscape design and transportation experience. Contribution: Prepared Visual Impact Assessment.

Richard C. Stewart, Engineering Geologist. B.S., Geology, California State University, Fresno; 21 years of hazardous waste and water quality experience; 4 years of paleontology and geology experience. Contribution: Prepared Paleontology Compliance Memo.

Carolyn Zhen-Ru, P.E., Transportation Engineer. B.S., Civil Engineering, California State University, Sacramento; 2 years of roadway design experience; 4 years of geotechnical design experience. Contribution: Prepared Preliminary Foundation Report.

Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this document. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

I. 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

II. AGRICULTURE AND FOREST 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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

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

IV. 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 Wildlife or U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- 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?

V. CULTURAL RESOURCES: Would the project:

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

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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"/> |

VI. 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 type="checkbox"/> | <input checked="" 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"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

VII. GREENHOUSE GAS EMISSIONS: Would the project:

- | | |
|---|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included |
|---|---|

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IX. 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"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

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?

f) Otherwise substantially degrade water quality?

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

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

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?

j) Result in inundation by seiche, tsunami, or mudflow?

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?

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

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

XI. 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?

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?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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XII. 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project 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"/> |
| (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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XIII. 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XIV. PUBLIC SERVICES:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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XV. 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?
- 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?

XVI. TRANSPORTATION/TRAFFIC: Would the project:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?
- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e) Result in inadequate emergency access?
- f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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?

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

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

XVIII. 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

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

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

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

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*Flex your power
Be energy efficient!*

March 16, 2012

NON-DISCRIMINATION 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, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Mario Solis, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353, TTY 711, fax (916) 324-1869, or via email: mario_solis@dot.ca.gov.

A handwritten signature in black ink, appearing to read "Malcolm Dougherty".

MALCOLM DOUGHERTY
Acting Director

"Caltrans improves mobility across California"

Appendix C Minimization and/or Mitigation Summary

Utilities/Emergency Services

Any utility relocation outside the boundaries of the environmental studies completed for the project would require separate environmental studies. Impacts to services during utility relocation would be temporary. A detailed study would be conducted during the final design phase of this project and utility conflict mapping would be prepared.

A traffic management plan would be developed to minimize delays and maximize safety for the motorists during construction. The traffic management plan could include but is not limited to the following:

- Release of information through brochures and mailers, press releases, and advertisements managed by the public information office
- Use of fixed and portable changeable message signs
- Incident management through the Construction Zone Enhancement Enforcement Program and the transportation management center
- Use of one-way traffic control

Traffic and Transportation/Pedestrian and Bicycle Facilities

Although construction of the project could result in temporary delays, a traffic management plan would be developed to minimize delays and maximize safety for the motorists. The traffic management plan would include, but is not limited to the following:

- Release of information through brochures and mailers, press releases, and advertisements managed by the public information office
- Use of fixed and portable changeable message signs
- Incident management through the Construction Zone Enhancement Enforcement Program and the transportation management center.
- Use of one-way traffic control

Visual/Aesthetics

The project would require the removal of mature riparian trees and other vegetation within the project area. To ensure that the visual quality of this segment of State Route 33 would be preserved, the project would do the following:

- Minimize the disturbance and protect existing vegetation
- Use erosion control and storm-water runoff control measures in disturbed areas that would not be paved
- Include a separate revegetation project to provide slope stabilization and ensure that no visual impacts would occur as result of the project
- Recommend storage ditches have slopes with a ratio of 4 to 1
- Require slopes underneath and around the bridge abutments have a ratio of 2 to 1 or flatter
- Comply with the Highway Design Manual and the National Pollutant Discharge Elimination System permit that slopes in excess of 1 to 4 would require written concurrence of the Caltrans district landscape architect and may also require concurrence from the Caltrans district maintenance and storm-water coordinators
- Involve the Caltrans district landscape architect early in the design phase to help make the determination on slope design

Cultural Resources

Caltrans' policy is to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, work would stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. If human remains are exposed during project activities, State Health and Safety Code Section 7050.5 states that no further disturbance should occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98.

Hydrology and Floodplain

To control erosion and prevent washout within the project area, rock slope protection would be placed on the southeast side of the new Jacalitos Creek bridge and along the abutments. On the south side, the existing double-chained fence would be repaired with rocks to prevent erosion on the new bridge abutments. The new bridge will be a single-span box girder bridge supported by long abutment piles. The piles, designed to survive severe scour issues and extreme flood events, would be placed outside of the creek bed. The new wider bridge would require reconstruction of the roadway

shoulder. Side slopes would have a 4 to 1 ratio or flatter to allow for storm-water runoff from the pavement.

Water Quality and Storm-Water Runoff

To control erosion and prevent washout within the project area, rock slope protection would be placed on the southeast side of the new Jacalitos Creek bridge and along the abutments. On the south side, the existing double-chained fence would be repaired with rocks to prevent erosion on the new bridge abutments. The new bridge would be a single-span box girder bridge that would not require columns. The bridge would be supported by long abutment piles placed outside the creek bed. The piles would be designed to survive severe scouring and extreme flood events. The proposed wider bridge would require reconstruction of the roadway shoulder. Side slopes for storage ditches to be excavated would be designed at a 4 to 1 ratio or flatter to allow for pavement run-off.

Perennial riparian (streamside) vegetation may be removed during construction. A separate revegetation project would provide slope stabilization and aesthetic mitigation. Building an unlined storage ditches would minimize the discharge of highway pollutants and storm-water runoff to the waterways.

Temporary Construction Measures

Standard temporary construction-site and permanent-design pollution prevention and permanent storm-water treatment best management practices would be used during and after project construction to control potential discharges of pollutants to surface water. Best management practices would be designed to control general gross pollutants and sedimentation/siltation, depending on location.

The required Storm Water Pollution Prevention Plan would address all the best management practices necessary to prevent water quality impacts during construction. Buffers for sensitive resources such as wetlands and riparian corridors would be put in place throughout the project area. The following measures would minimize potential water quality and hydrological impacts associated with construction:

- **Storm Water Best Management Practices**—Caltrans would be required by the state to conform to the Statewide National Pollutant Discharge Elimination System Storm Water Permit, Order Number 99-06-DWQ, NPDES Number CAS000003, adopted by the State Water Resources Control Board on July 15, 1999, and any subsequent permit in effect at the time of construction. In addition, Caltrans must

require the contractor to comply with the requirements of Order Number 99-06-DWQ, as well as the requirements of the General National Pollutant Discharge Elimination System Permit for Construction Activities, Order Number 2009-0009-DWQ, NPDES Number CA S000002. Caltrans would also ensure that the contractor use best management practices as specified in the Caltrans Storm Water Management Plan (Caltrans 2003c).

- **Prepare and Implement a Storm Water Pollution Prevention Plan**—Caltrans would require the contractor to develop an acceptable Storm Water Pollution Prevention Plan. The Storm Water Pollution Prevention Plan would contain best management practices that have demonstrated effectiveness at reducing storm water pollution. The Storm Water Pollution Prevention Plan would address all construction-related activities, equipment, and materials with the potential to affect water quality. All construction site best management practices would follow the latest edition of the Storm Water Quality Handbooks and Construction Site Best Management Practices Manual to control and minimize the impacts of construction-related pollutants. The Storm Water Pollution Prevention Plan would include best management practices to control pollutants, sediment from erosion, storm water-runoff, and other construction-related impacts. In addition, the Storm Water Pollution Prevention Plan would include the use of specific storm-water effluent monitoring requirements based on the project's risk level to ensure that the best management practices are effective in preventing the degradation of any water quality standards.

Air Quality

The project would generate temporary air pollutants during construction. Use of the Caltrans Standard Specifications would effectively reduce and control emissions during construction. The project is exempt from conformity determination as state in 40 Code of Federal Regulations Section 93.126, Table 2.

Natural Communities

Valley Saltbush Scrub

Mitigation Measures

In areas where valley saltbush scrub would be affected by construction, mitigation is required. This includes on-site restoration, duff collection before construction and duff redistribution after construction.

Avoidance and Minimization Measures

During construction, valley saltbush scrub would be avoided to the maximum extent possible. The following minimization measures would be used during construction to minimize impacts to this natural community:

- Under the direction of a Caltrans biologist, topsoil would be collected and salvaged from areas where valley saltbush scrub is disturbed.
- Salvaged topsoil would be stored at an appropriate site within the project area.
- Topsoil would be replaced in areas where the disturbance to valley saltbush scrub occurred.

Wetlands and Other Waters

Avoidance and Minimization Measures

Best management practices would be included so the smallest practical footprint would be in place to minimize temporary, indirect, and permanent impacts to waters of the United States. Work would take place only when Jacalitos Creek is dry.

Mitigation Measures

Two mitigation options are proposed to address the potential loss of aquatic resources if the waterways are determined jurisdictional:

- Preservation, enhancement, and/or restoration of aquatic resources
- Creation of aquatic resources on or off the project site

Plant Species

No mitigation is required. The following are avoidance and minimization measures.

With the following avoidance and minimization efforts, no impacts to the Lemon's jewel flower or the showy golden madia are anticipated:

- Preconstruction surveys would be done the season prior to construction activities.
- If Lemon's jewel flower or the showy golden madia are found during preconstruction surveys, Caltrans would avoid this species when feasible.

Hoover's Eriastrum

Hoover's eriastrum was identified within the project site. All Hoover's eriastrum that can be avoided during construction would be designated as an environmentally sensitive and protected with high visibility orange mesh fencing.

In areas where avoidance is not possible, the following minimization efforts would be used to lessen impacts to this species during construction activities:

- Under the direction of a Caltrans biologist, topsoil would be collected and salvaged from areas where Hoover's eriastrum would be disturbed.
- Salvaged topsoil would be stored at an appropriate site within the project area.
- Topsoil would be replaced in areas where there was temporary disturbance to Hoover's eriastrum.
- Restored Hoover's eriastrum habitat would be maintained and monitored by a Caltrans biologist with California Department of Fish and Wildlife guidance.

Animal Species

No mitigation is required. The following are avoidance and minimization measures for each species.

Long-Eared Owl

Construction activities could impact this species and result in permanent impacts to its habitat. The following avoidance and minimization efforts would be in place:

- Preconstruction surveys would be done to ensure no nesting long-eared owls are affected if construction occurs during nesting season.
- If nesting long-eared owls are observed on-site, then the nest site would be designated an environmentally sensitive area with a no-work area around the nest until a qualified biologist determines the young have left the nest.
- A qualified biologist would monitor the active nest during construction activities.
- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Any tree removal within the project area would be done outside the nesting season.

Burrowing Owl

There is a possibility that this species could occupy a burrow within or adjacent to the project area. If construction activities occur during the breeding season, noise may directly affect breeding activities of neighboring owls. Proposed construction activities could result in the permanent loss of a burrow. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Prior to ground disturbance, preconstruction surveys would search for owls within and adjacent to the project area.
- No disturbance would occur within 160 feet of occupied burrows during the non-breeding season (September 1 through January 31) or within 250 feet during the breeding season (February 1 through August 31) unless a qualified biologist approved by the California Department of Fish and Wildlife verifies that either the birds have not started egg laying and incubation or the juveniles from the occupied burrows are forging independently and are capable of independent survival.
- If burrowing owls are observed prior to construction, mitigation guidelines would include passive relocation and installation of devices that exclude the species.
- Owls would be excluded from the project area and within a 160 foot buffer zone by installing one-way doors in burrow entrances. One-way doors would be left in place for 48 hours to ensure that owls have left the burrows before excavation. The project area would then be monitored daily for the next week to confirm owl use of alternative burrows before excavating burrows in the project area.
- When possible, hand tools would be used to excavate burrows. The burrows would then be examined and refilled. A minimum of 6.5 acres of foraging habitat adjacent or connected to the new area is required for each relocated owl pair.

Short-Nosed Kangaroo Rat

This project could impact the short-nosed kangaroo rat. This species is known to occupy the project area, which contains suitable habitat for the short-nosed kangaroo rat. With the use of the following avoidance and minimization measures, no impacts to this species are expected to occur:

- Preconstruction surveys would be done to avoid potential impacts to this species.
- If occupied suitable habitat is observed during surveys, avoidance measures would be implemented within identified suitable habitat.
- A qualified biologist would be present at the construction site during initial ground disturbance activities.

San Joaquin Whipsnake

The project site contains suitable habitat for this species. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Preconstruction surveys would be done to avoid potential impacts to this species.

- A qualified biologist would be at the construction site during initial ground disturbing activities.

Tulare Grasshopper Mouse

The project site contains suitable habitat for this species. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Preconstruction surveys would be done to avoid potential impacts to this species.
- If occupied suitable habitat is observed during surveys, avoidance measures would be used within identified suitable habitat.
- A qualified biologist would be at the construction site during initial ground disturbing activities.

American Badger

The project site contains suitable habitat for this species. Using the following avoidance and minimization measures, no impacts to this species are expected:

- Preconstruction surveys would be done to avoid potential impacts to this species.
- If occupied suitable habitat is observed during surveys, avoidance measures would be used within identified suitable habitat.
- A qualified biologist would be at the construction site during initial ground disturbing activities.

Le Conte's Thrasher

Using the following avoidance and minimization measures, no impacts to this species are expected to occur:

- Preconstruction surveys would be conducted to ensure no nesting Le Conte's thrasher would be affected if construction is to occur during the nesting season.
- If nesting species are observed within the project area, then the nest would be designated an environmentally sensitive area with a no-work area around the nest until a qualified biologist determines the young have fledged.
- A qualified biologist would monitor the active nest during construction activities.
- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Tree Removal within the project area would be done outside of the nesting season.

Loggerhead Shrike

Using the following avoidance and minimization measures, no impacts to this species are expected to occur.

- Preconstruction surveys would be done to ensure no nesting loggerhead shrike would be affected if construction occurs during the nesting season.
- If the loggerhead shrike is observed on-site, the nest site would be designated an environmentally sensitive area with a no-work area around the nest until qualified biologist determines the young have fledged.
- A qualified biologist would monitor the active nest during construction activities.
- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Tree removal within the project area would be done outside of the nesting season.

Threatened and Endangered Species

Caltrans would include special provisions that include specific avoidance and minimization measures for each listed species. These measures would serve to avoid or minimize effects to the listed species that have the potential to occur within the project area.

A United States Fish and Wildlife Service-approved biologist would conduct a worker environmental awareness program for all construction crews prior to ground-disturbing activities. This training would provide workers with information on their responsibilities with regard to listed species. Training would be repeated for all new crew members and annually for crew members working within the listed species' habitat. Training materials and records of attendees would be submitted to the United States Fish and Wildlife Service in advance for approval.

Upon completion of the project, all habitat areas temporarily affected by construction (such as storage and staging areas) would be restored to original grade and contour and re-vegetated to promote restoration of the area. Appropriate methods and plant species used to re-vegetate would be determined on a site-specific basis in consultation with the United States Fish and Wildlife Service and/or other re-vegetation experts.

Contractors would remove trash daily and dispose of the trash off-site.

San Joaquin Wolley-Threads and the California Jewel Flower

No mitigation is required for these species. With the following avoidance and minimization efforts, no impacts to the San Joaquin wolley-threads or the California jewel flower are anticipated:

- Prior to groundbreaking, protocol-level surveys would be conducted for both species. Surveys would be done within the appropriate blooming seasons and in accordance with United States Fish and Wildlife Service protocols.
- Caltrans would notify the United States Fish and Wildlife Service and the California Department of Fish and Wildlife to reinitiate consultation and discuss what conservation measures would be used if these species are found during preconstruction surveys.

San Joaquin Antelope Squirrel

No mitigation is required for this species. An avoidance and minimization effort would be a qualified biologist who monitors the project area during construction when initial ground disturbing activities take place. No impacts to the San Joaquin antelope squirrel are anticipated.

Blunt-Nosed Leopard Lizard

Although the project would impact 6.34 acres of suitable habitat, no take is anticipated with the use of the following avoidance and minimization measures:

- A biological monitor would be on-site during initial ground disturbing activities.
- Protocol-level surveys for this species would be conducted no later than one year prior to construction and in accordance with the California Department of Fish and Wildlife's survey methodology. If this species is found within the project area, the United States Fish and Wildlife Service would be contacted to discuss ways to proceed with the project, reinitiate consultation, and avoid take to the maximum extent possible.

Giant Kangaroo Rat

Mitigation Measures

The project would affect 6.34 acres of habitat. Currently there are no California Department of Fish and Wildlife or United States Fish and Wildlife-approved mitigation banks for the giant kangaroo rat. Although mitigation options for this species are limited, compensation purchased for the San Joaquin kit fox would also

benefit the giant kangaroo rat. At this time, proposed compensation would be purchased from the Kreyenhagen Hills Conservation Bank in Fresno County.

Avoidance and Minimization Measures

No impacts to this species are expected to occur while using avoidance and minimization efforts. Preconstruction surveys would be required no more than 30 calendar days prior to the start of construction to avoid potential impacts to this species. If occupied suitable habitat is observed during surveys, avoidance measures would be used within identified suitable habitat where feasible.

To prevent the accidental entrapment of this species during construction, all open trenches and holes would be covered at the close of each working day. A detailed inspection for trapped giant kangaroo rats would be completed prior to filling any trenches or holes. Pipes would be inspected prior to being buried, capped, or moved. If a giant kangaroo rat is discovered, that section of pipe would not be moved until the United States Fish and Wildlife Service was consulted. The species must be allowed to leave without harassment.

In the case of an injured or dead giant kangaroo rat, Caltrans would contact the United States Fish and Wildlife Service within one day of discovery. Injured animals would be cared for by a licensed veterinarian or a Caltrans biologist. In the case of dead species, the animal would be preserved, bagged, and labeled. Carcasses would be held in a secure location until the United States Fish and Wildlife Service is notified.

San Joaquin Kit Fox

Mitigation Measures

The project would affect 6.34 acres of habitat. All impacts are considered permanent since temporary impacts to vegetation would take more than two seasons for replanted vegetation to reach maturity. Mitigation measures include compensation for loss of habitat through purchase of credits from a mitigation bank at a 3 to 1 ratio. The proposed mitigation bank is Kreyenhagen Hills Conservation Bank in Fresno County.

Avoidance and Minimization Measures

The following avoidance and minimization efforts are required:

- Preconstruction surveys would be done no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and construction activities or any project activity likely to impact this species.
- Surveys would be conducted within the project area and a 200-foot area outside the project footprint to identify habitat features.
- If natal/pupping dens are discovered within or 200 feet from the project boundary, the U.S. Fish and Wildlife Service would be immediately notified.
- Active dens would not be excavated during natal (birth) season (January 1 to June 14). A qualified biologist would monitor potential dens for three consecutive nights using a tracking medium or a remote sensor camera and would submit monitoring results in a letter to the United States Fish and Wildlife Service. The qualified biologist would also oversee the hand excavation of any dens that have been determined vacant following approval by the United States Fish and Wildlife Service. Results of den excavation and exclusion activities would be submitted in a letter to the United States Fish and Wildlife Service.
- A den exclusion zone delineated by flagged stakes should have a 50-foot radius around potential dens and a 100-foot radius around known dens as measured outward from the entrance or cluster of entrances.
- Known dens within the 100-foot radius of the project footprint will be protected by an exclusion zone marked by fencing/flagging that does not prevent access to the den by the San Joaquin kit fox. Acceptable designs will have openings for the kit fox but will keep humans and equipment out (wooden posts connected with caution tape, orange construction cones, orange construction fencing with a mesh size less than 2 inches in diameter with gaps every 50 feet). Fencing/flagging will be maintained until all construction-related disturbances have been terminated. At that time, all fencing/flagging will be removed to avoid attracting attention to the dens.
- Disturbance to all dens would be avoided to the maximum extent possible.
- A qualified biologist would be at the construction site during initial ground disturbing activities.
- To the extent possible, a biologist would be on-call during all construction periods when not present on-site.

- The *United States Fish and Wildlife Service Standard Measures for Protection of the San Joaquin Kit Fox for Prior to or During Ground Disturbance, Construction, and On-Going Operational Requirements* would also be used.
- In the case of an injured or dead San Joaquin kit fox, Caltrans would contact the United States Fish and Wildlife Service within one day of discovery. Injured animals would be cared for by a licensed veterinarian or a Caltrans biologist. In the case of dead species, the animal will be preserved, bagged, and labeled. Carcasses will be held in a secure location until the United States Fish and Wildlife Service is notified.

Swainson's Hawk

No impacts to the Swainson's hawk are anticipated while using the following avoidance and minimization measures:

- Preconstruction surveys would ensure no nesting Swainson's hawks would be affected if construction occurs during the nesting season.
- If nesting Swainson's hawks are observed on-site, the nest site would be designated an environmentally sensitive area with a no-work area around the nest until a qualified biologist determines that the young have fledged.
- A qualified biologist would monitor the active nest during construction activities.
- A special provision for migratory birds would be included to ensure that no potential nesting migratory birds are affected during construction.
- Tree removal within the project area would be done outside of the nesting season.

Appendix D Farmland Conversion Impact Rating

U.S. Department of Agriculture
FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 8/17/11	
Name Of Project Jacalitos Creek Bridge Replacement		Federal Agency Involved CA Dept of Transportation	
Proposed Land Use Bridge Replacement		County And State Fresno, California	
PART II (To be completed by NRCS)		Date Request Received By NRCS 8/19/11	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Acres Irrigated 1,153,812	Average Farm Size 2.85
Major Crop(s) Grapes, tomatoes, almonds	Farmable Land In Govt. Jurisdiction Acres: 1,250,984 % 32.7%	Amount Of Farmland As Defined In FPPA Acres: 597,055 % 15.6%	
Name Of Land Evaluation System Used California - Storie System	Name Of Local Site Assessment System NONE	Date Land Evaluation Returned By NRCS 10/20/11	
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	1.1		
B. Total Acres To Be Converted Indirectly	1.0		
C. Total Acres In Site	2.1	0.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information			
A. Total Acres Prime And Unique Farmland	0		
B. Total Acres Statewide And Local Important Farmland	0		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	0		
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
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	0	
5. Distance From Urban Buildup Area	15	15	
6. Distance To Urban Support Services	15	10	
7. Size Of Present Farm Unit Compared To Average	10	0	
8. Creation Of Nonfarmable Farmland	10	0	
9. Availability Of Farm Support Services	5	0	
10. On-Farm Investments	20	10	
11. Effects Of Conversion On Farm Support Services	10	0	
12. Compatibility With Existing Agricultural Use	10	0	
TOTAL SITE ASSESSMENT POINTS	160	60	0
PART VII (To be completed by Federal Agency)			
Relative Value Of Farmland (From Part V)	100	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	60	0
TOTAL POINTS (Total of above 2 lines)	260	60	0
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Reason For Selection:			

(See instructions on reverse side)
This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)

Appendix E United States Fish and Wildlife Service Species List

Sacramento Fish & Wildlife Office Species List

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 120723102932

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

Branchinecta lynchi

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Fish

Hypomesus transpacificus

delta smelt (T)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Rana draytonii

California red-legged frog (T)

Reptiles

Gambelia (=Crotaphytus) sila

blunt-nosed leopard lizard (E)

Thamnophis gigas

giant garter snake (T)

Birds

Gymnogyps californianus

California condor (E)

Mammals

Dipodomys ingens

giant kangaroo rat (E)

Dipodomys nitratooides exilis

Fresno kangaroo rat (E)

Vulpes macrotis mutica

San Joaquin kit fox (E)

Plants

Caulanthus californicus

California jewelflower (E)

Monolopia congdonii (=Lembertia congdonii)

San Joaquin woolly-threads (E)

http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists.cfm

7/23/2012

Sacramento Fish & Wildlife Office Species List

Quads Containing Listed, Proposed or Candidate Species:

GUIJARRAL HILLS (314B)
AVENAL (314C)
COALINGA (315A)
ALCALDE HILLS (315B)
CURRY MOUNTAIN (315C)
KREYENHAGEN HILLS (315D)
HARRIS RANCH (337C)
JOAQUIN ROCKS (338C)
DOMENGINE RANCH (338D)

County Lists

No county species lists requested.

Key:

- (E) *Endangered* - Listed as being in danger of extinction.
- (T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists.cfm

7/23/2012

Appendix F United States Fish and Wildlife Service Biological Opinion



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



In Reply Refer To:
81420-2011-F-0384-1

March 5, 2013

Mr. Javier Almaguer
Chief, Central Region Biology South Branch
California Department of Transportation, District 6
855 M Street, Suite 200
Fresno, California 93721

Subject: Formal Consultation for the Jacalitos Creek Bridge Replacement Project, Fresno County, California (California Department of Transportation EA 06-43260; 06-FRE-33-PM 10.9/11.1), as appended to the Upland Species Programmatic Biological Opinion

Dear Mr. Almaguer:

This is the U.S. Fish and Wildlife Service's (Service) response to the California Department of Transportation's (Caltrans) request for initiation of formal consultation on the proposed Jacalitos Creek Bridge Replacement Project (project) in Fresno County, California. Under the provisions of the July 1, 2007, Pilot Program Memorandum of Understanding between the Federal Highway Administration (FHWA) and Caltrans, FHWA assigned, and Caltrans assumed, FHWA's responsibilities under the National Environmental Policy Act (NEPA) as well as its responsibilities for environmental review, consultation, and coordination under other Federal environmental laws.

Your letter, dated July 23, 2012, was received in this office on July 26, 2012. Caltrans determined, and the Service agreed, that the project be considered for inclusion with the Service's December 21, 2004, *Programmatic Biological Opinion on the Effects of Minor Transportation Projects on the San Joaquin Kit Fox, Giant Kangaroo Rat, Tipton Kangaroo Rat, Blunt-nosed Leopard Lizard, California Jewelflower, San Joaquin Woolly-threads, Bakersfield Cactus, and Recommendations for the San Joaquin Antelope Squirrel* (Programmatic) (Service file number 1-1-01-F-0003), as amended on September 22, 2009 (Service file number 81420-2009-F-0974-1). At issue are potential effects to the federally-listed as endangered San Joaquin kit fox (*Vulpes macrotis mutica*) and giant kangaroo rat (*Dipodomys ingens*). This document represents the Service's biological opinion on the effects of the proposed project on these listed species. This document has been prepared in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*) (Act).

Mr. Javier Almaguer

2

The findings and recommendations of this biological opinion are based on: (1) the consultation history; and (2) other information available to the Service.

Caltrans has determined that the project may affect, and is likely to adversely affect the San Joaquin kit fox and giant kangaroo rat. The Service has reviewed the proposed project and concurs with Caltrans' determination.

Caltrans also has determined, and the Service concurs, that the proposed project may affect, but is not likely to adversely affect the blunt-nosed leopard lizard. According to the California Natural Diversity Database (CNDDDB; 2013)¹, the blunt-nosed leopard lizard has been observed all around the project area to the northeast, northwest, southeast, and southwest. There are eight records of the blunt-nosed leopard lizard within the Coalinga quadrangle; two of these records are located closest to the project area at a distance of approximately 1.8 and 2.3 mi northeast. A separate record is situated within the Gujarral Hills quadrangle to the east and is located approximately 2.1 mi northeast of the project area. Despite these occurrences existing in close proximity to the project area, no blunt-nosed leopard lizards were discovered during protocol-level surveys conducted in 2011 both within the immediate project footprint and within an additional 100 ft. extending out from the project footprint. Surveys were conducted in accordance with the California Department of Fish and Wildlife's (CDFW) May 2004 *Approved Survey Methodology for the Blunt-nosed Leopard Lizard* (Survey Methodology).

Caltrans also has determined, and the Service concurs, that the proposed project will have no effect on the California jewelflower and San Joaquin woolly-threads based on the results of botanical surveys and the distance of known occurrences from the project area. Although there is potentially suitable habitat present within the project footprint for these two species in the form of valley grassland, it is unlikely to be currently occupied given the results of surveys for special status plants, which resulted in no detections of the species. Four focused botanical surveys were conducted for the project when the species were confirmed to be in bloom, with the first survey performed on March 9, 2011, then on March 16, 29, and April 6, 2011. Surveys were conducted during the appropriate blooming periods and followed standard methods in accordance with the California Department of Fish and Wildlife's (CDFW) revised 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*.

According to the CNDDDB (2013)¹, there is one historic occurrence of the California jewelflower located within the Coalinga United States Geological Survey (USGS) 7.5 minute quadrangle, in which the project area is located. The observation was made approximately 4.5 miles (mi) northwest of the project area in the general vicinity of the City of Coalinga. There is another historic occurrence of the California jewelflower located approximately 3 mi upstream from the project area at the mouth of Jacalitos Canyon; this is located within the Kreyenhagen Hills USGS 7.5 minute quadrangle, which is situated south of the Coalinga quadrangle. The record notes that the habitat at this location was modified and as of 1998, the population identified there was possibly extirpated; therefore additional surveys were needed to determine its status. Caltrans attempted to use this location as a reference site for the species during the 2011 surveys but was

¹ California Department of Fish and Wildlife, Natural Diversity Data Base. 2013. Element occurrence reports. Biogeographic Data Branch. RareFind 4. Government Version - April 5, 2011. Accessed January 2-3, 2013.

Mr. Javier Almaguer

3

not granted access. Instead, Caltrans obtained verbal confirmation from the U.S. Bureau of Land Management (BLM) that the species was in bloom on one of the BLM's sites.

There is also one historic occurrence of the San Joaquin woolly-threads located within the Coalinga quadrangle; it is located approximately 4.5 mi northwest of the project area. The record notes that as of 1989, little native vegetation remained in the area and the site was highly disturbed. Another record of the San Joaquin woolly-threads (dated 2006 and located approximately 2.5 mi northeast of the project area) was observed near Los Gatos Creek; this occurrence is located within the Gujarral Hills USGS 7.5 minute quadrangle, situated to the east of the Coalinga quadrangle. Reference sites for the San Joaquin woolly-threads were visited during surveys.

Because habitat in the project area is still considered to be suitable and provides the potential for the blunt-nosed leopard lizard to move into the area, as well as for both plant species to establish in the future, Caltrans has incorporated two additional minimization measures, one specifically addressing the plants and one addressing the blunt-nosed leopard lizard. The measures are further described under the *General* heading of the Conservation Measures section.

If substantial changes are made to the proposed project or if new information is presented to the Service, these determinations may be re-evaluated and reinitiation of consultation recommended. The remainder of this biological opinion will address the effects of the proposed project upon the San Joaquin kit fox and giant kangaroo rat.

Consultation History

March 8&10, 2011. Caltrans corresponded with the Service via e-mail regarding presence/absence of the giant kangaroo rat, potential trapping efforts, as well as habitat suitability in the project area. Caltrans also provided aerial site maps to the Service.

June 27, 2011. Caltrans and the Service met for a site visit to review the project area and to discuss the potential for giant kangaroo rat presence, the issues concerning proposed giant kangaroo rat compensation measures, and whether trapping would be necessary if Caltrans chose to instead infer species presence.

July 12-13, 2011. Caltrans e-mailed the Service to say that Caltrans was unable at that time to obtain more detailed information from its design team regarding habitat removal. It also asked the Service for its recommendations regarding the giant kangaroo rat and project trapping efforts. The Service replied on July 13 to suggest that if Caltrans inferred giant kangaroo rat presence (based in part on the species' historic range and observations of unidentified kangaroo rat sign on-site during prior surveys), trapping may not be necessary.

July 19, 2011. Caltrans e-mailed the Service to discuss giant kangaroo rat compensation options, particularly given the absence of available conservation banks in the San Joaquin Valley. Caltrans inquired whether it could utilize the Kreyenhagen Hills Conservation Bank (KHCB) for both the San Joaquin kit fox and giant kangaroo rat since it reasoned that this bank was located within the historical range of the giant kangaroo rat, contained similar habitat to that at the

Mr. Javier Almaguer

4

project site, included the Jacalitos Creek, and was located in close proximity to the project site. The Service replied that it needed to further discuss the matter.

September 1&7, 2011. The Service e-mailed Caltrans with updates regarding its discussion of proposed giant kangaroo rat compensation measures. The Service concluded that using the KHCB to compensate for both the San Joaquin kit fox and giant kangaroo rat was not viable. Also introduced were possible options regarding third party land acquisitions. On September 7, Caltrans responded to the Service to inquire whether the Palo Prieto Conservation Bank was a possible option.

September 26, 2011. Caltrans and the Service discussed the project at a meeting. Points of discussion included habitat suitability for the giant kangaroo rat at the KHCB; information to be included in the future biological assessment (BA); habitat suitability at the Palo Prieto Conservation Bank (it was determined to be too far away from the project site); and viability of establishing a 'likely to adversely affect' determination for the giant kangaroo rat with no accompanying credit-based compensation.

October 6, 2011. The Service e-mailed Caltrans to recommend that Caltrans not propose credit-based compensation for the giant kangaroo rat; however, the Service clarified that it would continue to exempt section 9 take prohibitions for the species. The Service requested that in the future BA, Caltrans highlight the effects of the project on the giant kangaroo rat, the proposed avoidance and minimization measures for the species, and an explanation as to why Caltrans was not successful in securing suitable third parties to accept both easements and endowments for purchased lands.

July 26, 2012. The Service received a letter from Caltrans requesting initiation of formal consultation for the project. The request included a BA titled *Jacalitos Creek Bridge Replacement*, dated July 23, 2012, and prepared by Caltrans.

September 6, 2012. The Service e-mailed Caltrans with a request for further information regarding the BA.

September 12, 2012. Caltrans responded to the Service's September 6 questions.

September 17-18, 2012. Caltrans e-mailed the Service to inquire whether the Service had further questions and whether the initiation package was considered complete. The Service replied on September 18 to confirm that it was deemed complete on September 12.

January 3, 2013. The Service e-mailed Caltrans with additional clarification requests regarding the BA.

January 17, 2013. Caltrans responded to the Service's January 3 queries.

February 22, 2013. Caltrans requested via e-mail that the project be appended to the Programmatic.

Mr. Javier Almaguer

5

February 25, 2013. Via telephone, the Service and Caltrans discussed changing the blunt-nosed leopard lizard determination to more appropriately reflect that the project may affect, but is not likely to adversely affect the species. Caltrans later e-mailed the Service to confirm this alteration and that it would conduct protocol surveys for the blunt-nosed leopard lizard in the season prior to construction.

BIOLOGICAL OPINION

Proposed Project

Caltrans proposes to replace the Jacalitos Creek Bridge (bridge number 42-0072) in order to correct seismic damage and foundation settlement attributed to historic heavy flooding in the project area. The project area is located approximately 4 mi east of the City of Coalinga on State Route (SR) 33 (post mile [PM] 10.9/11.1) and approximately 6.5 mi west of Interstate 5 (I-5). The segment of SR 33 within the project area is a two-lane undivided highway that runs through a rural area from the City of Coalinga (located west of Jacalitos Creek) east towards I-5. The existing Jacalitos Creek Bridge was built in 1955 as a 6-span concrete slab bridge. The replacement structure will be a single-span box girder bridge.

The project also will include reconstruction of the roadway at the bridge approaches, addition of rock slope protection (RSP) on the southeast side of the bridge and on the abutments, repair of the existing erosion control double fence with rocks on the south side of the bridge, and construction of storage ditches on all four corners of the bridge.

Staging will occur in the southeast corner of the project area. Construction is anticipated to begin in March 2015 and to take 250 working days to complete, with work potentially spread over two seasons. No night work is proposed.

Conservation Measures

Caltrans will implement the Programmatic's *Conservation Measures, Reasonable and Prudent Measures*, and *Terms and Conditions*, as well as the avoidance and minimization measures discussed in the BA; all these measures will serve to avoid or minimize effects to the listed species that are known and/or have the potential to occur within the project area:

❖ General

1. Caltrans will include Special Provisions that include the avoidance and minimization measures of this biological opinion when soliciting contractor bid packages.
2. A Service-approved biologist(s) will conduct a worker environmental awareness program for all construction crews prior to ground-disturbing activities, with the purpose of informing all personnel of the potential for listed species to occur on-site and the effects on the species from construction activities. It will provide workers with information on their responsibilities with regard to listed species, including: locations of environmentally sensitive areas, exclusion zones, timing constraints, and the reporting of any discovered species to the Service-approved biologist(s). The training will be

Mr. Javier Almaguer

6

repeated to all new crew members and annually to all crew members working in the species' habitat. Crew members will sign an attendance sheet and confirm that they understand the protection measures and construction restrictions. Training materials and records of attendees will be submitted to the Service in advance for approval.

3. Protocol-level surveys for the blunt-nosed leopard lizard will be conducted by a Service-approved biologist(s) no longer than one year prior to construction and in accordance with the CDFW's Survey Methodology in order to identify any changes in species presence at the project site.
 - a. If the blunt-nosed leopard lizard is observed within the project footprint, Caltrans will notify the Service to discuss the need to reinitiate this consultation.
4. Prior to groundbreaking, a Service-approved biologist(s) will conduct updated protocol-level botanical surveys within the project area for the following two species: the California jewelflower and the San Joaquin woolly-threads. Surveys will be conducted in the appropriate blooming seasons and in accordance with the most current protocols accepted by the Service. The intention will be to discover any future changes in, or new additions to, the floristic composition of federally-listed plant species at the project site.
 - a. If either plant species is observed within the project footprint, Caltrans will notify the Service to discuss the need to reinitiate this consultation.
5. To minimize opportunistic predatory effects to the San Joaquin kit fox and giant kangaroo rat, Caltrans will condition contracts with contractors to require that trash be removed at least once daily from project areas and disposed of off-site so as not to attract predator species like coyotes (*Canis latrans*) to the project area.
6. Upon completion of project construction, all habitat areas impacted temporarily by project activities, such as storage and staging areas, will be restored to original grade and contour, and also will be re-vegetated to promote restoration of the area. Appropriate methods and plant species used to re-vegetate will be determined on a site-specific basis in consultation with the Service and/or other re-vegetation experts.

❖ San Joaquin Kit Fox

1. Caltrans and the City will adhere to the standard construction and operational requirements described in the Service's most recent available guidelines for the San Joaquin kit fox; currently this is the revised January 2011 *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (Standardized Recommendations), including the measures below.
2. No less than 14 days but no more than 30 days prior to the start of ground disturbance and/or construction activities, the Service-approved biologist(s) will conduct preconstruction surveys for the San Joaquin kit fox both in the project footprint and within 200 ft. of the project footprint, inclusive of any utilities relocations.

Mr. Javier Almaguer

7

3. Disturbance to all San Joaquin kit fox dens will be avoided to the maximum extent possible. If known or potential dens are identified within the project footprint during the preconstruction surveys, Caltrans will request to monitor and excavate those dens that are expected to be affected directly by the project and cannot be avoided. Active dens will not be excavated during the natal season (approximately January 1 - June 14). The Service-approved biologist(s) will monitor potential dens for three consecutive nights using tracking medium or a remote sensor camera, will submit monitoring results in a letter report to the Service, and also will oversee the hand excavation of any dens that have been determined vacant following approval by the Service. The Service-approved biologist(s) also will submit results of den excavation and exclusion activities in a letter report to the agencies. The following measures will be applied to dens that are not excavated:
 - a. Dens that are identified during preconstruction surveys of the project footprint and a 200 ft. area outside of the project footprint will be monitored and protected by an exclusion zone around dens, as measured outward from the entrance or cluster of entrances of each den.
 - i. Potential and atypical dens within 50 ft. of the project footprint will be protected with a 50 ft. zone delineated by flagged stakes;
 - ii. Known dens within 100 ft. of the project footprint will be protected with a 100 ft. zone. To ensure protection, the exclusion zone will be demarcated by fencing/flagging that does not prevent access to the den by the San Joaquin kit fox. Acceptable designs will have openings for San Joaquin kit fox ingress/egress but will keep humans and equipment out, e.g. wooden posts connected with caution tape; orange construction cones; orange construction fencing with a mesh size less than 2 inches in diameter (to prevent the San Joaquin kit fox from becoming entangled in the fencing) with gaps every 50 ft. Fencing/flagging will be maintained until all construction-related disturbances have been terminated. At that time, all fencing/flagging will be removed to avoid attracting subsequent attention to the dens.
 - b. If natal/pupping dens are discovered either within the project footprint or within 200 ft. of the project footprint, Caltrans will immediately notify the Service.
4. The Service-approved biologist(s) will be on-site during initial ground-disturbing activities that could affect the San Joaquin kit fox, and then will be available on-call during all subsequent construction periods when not present on-site.

Caltrans proposes to compensate for the permanent loss of 4.91 ac, as well as the temporary disturbance to 1.43 ac of suitable habitat for the San Joaquin kit fox by purchasing 16.3 ac worth of credits (using a 3:1 compensation ratio for permanent effects and 1.1:1 compensation ratio for temporary effects) at a Service-approved conservation bank. Caltrans has proposed using the Kreyenhagen Hills Conservation Bank in Fresno County.

Mr. Javier Almaguer

8

❖ Giant Kangaroo Rat

1. Preconstruction trapping surveys will be conducted no more than 30 calendar days prior to the start of construction. If occupied suitable habitat is observed during surveys, Caltrans will consult further with the Service concerning implementation of avoidance measures to the maximum extent possible.
2. To prevent inadvertent entrapment of the giant kangaroo rat during construction, all open trenches and holes will be covered at the close of each day. Prior to any trenches or holes being filled, they will be thoroughly inspected for trapped individuals. Pipes also will be inspected prior to their being buried, capped, or moved. If a giant kangaroo rat is discovered, that section of pipe will not be moved until the Service has been consulted and the species is allowed to leave without harassment.

Action Area

The action area is defined in 50 CFR § 402.02, as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” The action area for this project is composed of the project impact area, which includes areas directly impacted by construction. This comprises the 0.2 mi segment of SR 33 at which bridge replacement and road reconstruction activities will occur; and portions of agricultural land, valley saltbush scrub, tamarisk scrub, and a segment of the Jacalitos Creek bed within which work activities will occur and the proposed staging area and access routes will be located. The action area also includes portions of land that extend approximately 200 ft. from the project impact area which will experience further-reaching effects of bridge replacement and associated roadway improvement activities such as visual and noise disturbance.

Appending to the Programmatic Biological Opinion

Caltrans has requested and the Service has agreed that it is appropriate to append the Jacalitos Creek Bridge Replacement Project to the Programmatic. This letter is an agreement by the Service to append the project to the Programmatic and represents the Service’s biological opinion on the effects of the proposed action.

The proposed project will permanently and temporarily remove 6.34 ac of habitat. Caltrans proposes to provide compensatory measures for the anticipated habitat loss, which will minimize the effect of the take on the San Joaquin kit fox. Compensation will occur on a Service-approved site that meets the requirements documented in the Service’s most recently available (revised July 28, 2011), *Selected Review Criteria for Conservation Banks and Section 7 Off-Site Compensation* (Review Criteria). Caltrans has proposed to use an available Service-approved conservation bank as the compensation site. If a site other than that identified is proposed, the Service will require additional information on the site, the protections afforded the site (see Review Criteria), and who will be responsible for the monitoring and maintenance under the Review Criteria.

Mr. Javier Almaguer

9

Analytical Framework for the Jeopardy/No Jeopardy Determination

In accordance with policy and regulation, the following analysis relies on four components to support the jeopardy/no jeopardy determinations for the San Joaquin kit fox and giant kangaroo rat: (1) the *Status of the Species*, which evaluates the species' range-wide conditions, the factors responsible for those conditions, and their survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the species in the action area, the factors responsible for those conditions, and the role of the action area in the species' survival and recovery; (3) the *Effects of the Action*, which determines the direct and indirect effects of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the species.

In accordance with policy and regulation, the jeopardy/no jeopardy determinations are made by evaluating the effects of the proposed Federal action in the context of the species' current statuses, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the San Joaquin kit fox and giant kangaroo rat in the wild.

The following analysis places an emphasis on consideration of the range-wide survival and recovery needs of the species and the role of the action area in meeting those needs as the context for evaluating the significance of the effects of the proposed Federal action, combined with cumulative effects, for purposes of making the jeopardy/no jeopardy determinations. In short, a non-jeopardy determination is warranted if the proposed action is consistent with maintaining the role of habitat for the species' populations in the action area for the survival and recovery of the three species.

Supplement to the Programmatic's Environmental Baseline

The action area consists of portions of cultivated agricultural fields (e.g. barley), valley saltbush scrub, tamarisk scrub, and a segment of the Jacalitos Creek. The creek is an ephemeral stream and receives water only during rain events and so does not provide a constant source of water; consequently, it flows for short periods and provides only limited aquatic resources.

The action area is located within known and/or suitable habitat for each species. According to the CNDDDB (2013)¹, there are two records documenting the San Joaquin kit fox within the Coalinga USGS 7.5 minute quadrangle, in which the action area is located, both located northwest of the project impact area. The closest records, located approximately 1.6 and 3.0 mi northeast of the project impact area in the Gujarral Hills USGS 7.5 minute quadrangle to the east. According to the CNDDDB (2013)¹, there are no documented records of the giant kangaroo rat within either the Coalinga quadrangle or in the vicinity of the action area. Although Caltrans considers it unlikely for the giant kangaroo rat to occur on-site, it acknowledges that the action area is situated within the historical range of the species and that there remains potentially suitable habitat for the species.

Mr. Javier Almaguer

10

Effects of the Proposed Action*Habitat Loss and Disturbance*

Construction work, such as the excavation, filling, and paving activities associated with the replacement of the Jacalitos Creek Bridge and associated roadway improvements on SR 33 at the bridge approaches and on the bridge embankments will result in the permanent loss of 4.91 ac of valley saltbush scrub and tamarisk scrub. Habitat that is anticipated to require longer than two seasons to recover from construction effects and to reach the maturity that existed prior to construction, was identified as permanently affected habitat. There also will be temporary disturbance to 1.43 ac of agricultural and creek-bed habitat due to activities such as grading, staging, and access. Temporary disturbance to habitat is defined in this instance as those areas in which effects do not degrade the habitat beyond its ability to recover within one year after completion of project construction. Because the project is anticipated to last for longer than one season, the disturbance to habitat areas may be ongoing and therefore the habitat will likely take longer to recover. Therefore, it is reasonable to expect this disturbance to result in harm and harassment to the San Joaquin kit fox and giant kangaroo rat.

While no potential or known San Joaquin kit fox dens were identified specifically at the time of surveys within the project impact area, there were several areas located within 200 ft. of the project impact area that were considered potentially suitable for denning activity. Since an appropriate prey base for the San Joaquin kit fox was identified in the action area, the action area also was considered to be potential foraging habitat (e.g. ground squirrels [*Spermophilus beecheyi*] and unidentified kangaroo rat species). Surveys were not conducted specifically for the giant kangaroo rat; however, during surveys performed for sensitive plants and the blunt-nosed leopard lizard, small mammal sign (e.g. dust baths and trail drag marks likely created by unidentified kangaroo rats) was observed in the action area. The numerous small mammal burrows that were observed in the action area potentially could be used by the giant kangaroo rat. It is reasonably likely that some of these burrows will be lost during the course of construction. Any potential or known dens and/or burrows that are identified in the project impact area during preconstruction surveys and which undergo excavation (following appropriate monitoring action), will be destroyed and consequently will remove shelter and cover for the species. This is reasonably likely to adversely affect local San Joaquin kit fox and giant kangaroo rat survival by reducing the number and distribution of shelter and escape refuges from predators.

Entombment and Strikes

Although no dens were identified specifically during the 2011 surveys within the project impact area, this does not preclude the San Joaquin kit fox from moving into the project site and establishing dens at some point in time after the surveys. Because some suitable areas of denning habitat exist in the wider action area, it is reasonably likely that potential dens could exist in the action area; there are no recently updated survey results to confirm otherwise. Similarly, although no burrows were identified specifically as those inhabited by the giant kangaroo rat, appropriate small mammal burrows suitable for the species do exist in the action area. With the implementation of proposed conservation measures such as preconstruction surveys, den/burrow monitoring, exclusion zones, and hole/trench covering, the crushing or

Mr. Javier Almaguer

11

entombing of these two species during groundbreaking activities and major construction is not reasonably likely to occur.

The proposed conservation measures also are designed to minimize the risk of construction vehicle/equipment strikes. Therefore, it is not reasonably likely that the species will be hit by construction equipment or vehicles while occupying or moving through the action area.

Road Mortality

Injury and mortality are likely to occur to the San Joaquin kit fox when individuals attempt to cross roads. The highway, SR 33, acts as an existing hazard for the widely-ranging, dispersing San Joaquin kit fox and it will continue to be a hazard for the species.

Conclusion

Conservation measures set forth for implementation before, during, and following project work will serve to minimize project effects and the extent of take associated with the San Joaquin kit fox and giant kangaroo rat. The effects and amount of take also will be minimal in regards to the wider populations of these two species present in the vicinity of the action area, and within the wider region of Fresno County. After reviewing the current status of the San Joaquin kit fox and giant kangaroo rat, the environmental baseline, and the cumulative effects as analyzed in the Programmatic, in addition to the project-specific effects of the Jacalitos Creek Bridge Replacement Project, it is the Service's biological opinion that the proposed project is not likely to jeopardize the continued existence of the San Joaquin kit fox and giant kangaroo rat.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are nondiscretionary, and must be undertaken by Caltrans, as appropriate, for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this Incidental Take Statement. If Caltrans (1) fails to assume and implement the terms and conditions, or (2) fails to require any of its contractors to adhere to the terms and conditions of the Incidental Take Statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In

Mr. Javier Almaguer

12

order to monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the Incidental Take Statement [50 CFR §402.14(i)(3)].

Amount or Extent of Take

San Joaquin Kit Fox

It is infeasible to quantify the exact number of San Joaquin kit foxes that will be taken as a result of the proposed action because the numbers of individuals in the action area are unknown and estimates of population density in the action area are unavailable. Thus, the Service cannot quantify the exact number of individual animals that is anticipated to be taken as a result of the proposed action. In instances in which the number of individuals that may be taken cannot be determined, the Service may quantify take in numbers of acres of permanently lost or degraded habitat; since take is expected to result from these impacts to habitat, the quantification of acreage becomes a direct surrogate for the species that will be taken. The Service therefore anticipates take incidental to the project as the 6.34 ac of suitable habitat that will be permanently lost and temporarily disturbed. Dens also may be destroyed as a result of project construction. Upon implementation of the *Reasonable and Prudent Measures and Terms and Conditions* in the Programmatic, and the *Conservation Measures* considered herein, incidental take within this acreage in the forms of harm and harassment due to bridge replacement and associated roadway improvement activities leading to habitat loss and disturbance, as well as den excavation and destruction, will become exempt from the prohibitions described under section 9 of the Act.

Giant Kangaroo Rat

It is infeasible to quantify the exact number of giant kangaroo rats that will be taken as a result of the proposed action because the numbers of individuals in the action area are unknown and estimates of population density in the action area are unavailable. Thus, the Service cannot quantify the exact number of individual animals that is anticipated to be taken as a result of the proposed action. In instances in which the number of individuals that may be taken cannot be determined, the Service may quantify take in numbers of acres of permanently lost or degraded habitat; since take is expected to result from these impacts to habitat, the quantification of acreage becomes a direct surrogate for the species that will be taken. The Service therefore anticipates take incidental to the project as the 6.34 ac of suitable habitat that will be permanently lost and temporarily disturbed. Burrows also may be destroyed as a result of project construction. Upon implementation of the *Reasonable and Prudent Measures and Terms and Conditions* in the Programmatic, and the *Conservation Measures* considered herein, incidental take within this acreage in the forms of harm and harassment due to bridge replacement and associated roadway improvement activities leading to habitat loss and disturbance, as well as burrow excavation and destruction, will become exempt from the prohibitions described under section 9 of the Act.

Mr. Javier Almaguer

13

Effect of the Take

The Service has determined that the level of anticipated take is not likely to jeopardize the continued existence of the San Joaquin kit fox and giant kangaroo rat.

Salvage and Disposition of Individuals

In the case of an injured and/or dead San Joaquin kit fox or giant kangaroo rat, the Service shall be notified of events within one day and the animal shall be handled only by a Service-approved biologist. Injured animals shall be cared for by a licensed veterinarian or other Service-approved person. In the case of a dead species, the animal shall be preserved, as appropriate, and shall be bagged and labeled (i.e. species type; who found or reported the incident; when the report was made; when and where the incident occurred; and if possible, cause of death). Carcasses shall be held in a secure location, such as a freezer or cooler, until instructions are received from the Service regarding the disposition of the specimen or until the Service, or another appropriate agency or Service-approved person, takes custody of the specimen. Caltrans must report to the Service within one calendar day any information about take or suspected take of federally-listed species not exempted in this opinion. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal. The Service contacts are Daniel Russell, Deputy Assistant Field Supervisor, Endangered Species Program, Sacramento, at (916) 414-6600 and the Service's Law Enforcement Division at (916) 569-8444.

Any contractor or employee who, during routine operations and maintenance activities inadvertently kills or injures a listed wildlife species must immediately report the incident to his representative at his contracting/employment firm and to Caltrans. This representative must contact the Service within one calendar day.

REINITIATION—CLOSING STATEMENT

This concludes the Service's review of the proposed Jacalitos Creek Bridge Replacement Project, as outlined in your letter. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or an extent not considered in this biological opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this biological opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

Mr. Javier Almaguer

14

Please contact Jen Schofield, Fish and Wildlife Biologist, or Thomas Leeman, Chief, San Joaquin Valley Division, at the letterhead address or at (916) 414-6600 if you have any questions regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth Sanchez". The signature is fluid and cursive, with the first name being more prominent.

Kenneth Sanchez
Assistant Field Supervisor

cc:

Annee Ferranti, California Department of Fish and Wildlife, Fresno, California

Appendix G Comments and Responses

This appendix contains the comments received during the public circulation and comment period from March 21, 2012 to May 1, 2012. A Caltrans response follows each comment presented.

Comment from the State Clearinghouse and Planning Unit



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

May 2, 2012

G. William "Trais" Norris, III
California Department of Transportation, District 6
855 M Street, Suite 200
Fresno, CA 93721

Subject: Jacalitos Creek Bridge Replacement Project
SCH#: 2012031067

Dear G. William "Trais" Norris, III:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on May 1, 2012, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Response to Comment from the State Clearinghouse

The State Clearinghouse letter acknowledges that Caltrans has completed the review requirements for draft environmental documents as required in the California Environmental Quality Act.

Comment from the Fresno County Clerk (returned Caltrans letter with date stamp showing receipt—no other comment)

E201210000112

Public Notice

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Availability of the Initial Study and the Opportunity for a Public Hearing for the Jacalitos Creek Bridge Replacement Project

WHAT IS BEING PLANNED ?
 The California Department of Transportation (Caltrans) proposes to replace the Jacalitos Creek Bridge located 4 miles east of the City of Coalinga on State Route 33 in Fresno County.

WHY THIS PUBLIC NOTICE ?
 Caltrans has studied the effects this project may have on the environment. Our studies show it will not significantly affect the quality of the environment. This notice is to inform you of the preparation of the proposed Mitigated Negative Declaration and Initial Study, its availability for you to read, and to offer the opportunity for a Public Hearing.

WHAT IS AVAILABLE ?
 Beginning March 21, 2012 and ending May 1, 2012 the proposed Mitigated Negative Declaration and Initial Study will be available for review at the Caltrans District Office (1352 West Olive Avenue, Fresno, CA 93728) from 8:00 a.m. to 5:00 p.m. on weekdays and the Coalinga-Huron District Library, located at 305 No. 4th Street, Coalinga, CA 93210. The document can also be accessed electronically at the following website: <http://www.dot.ca.gov/dist6/environmental/envdocs/d6/>

WHERE DO YOU COME IN ?
 Do you have any comments about processing this project with a Mitigated Negative Declaration and Initial Study? Do you disagree with the findings of our study as set forth in the Mitigated Negative Declaration? Would you care to make any other comments on the project? Would you like a Public Hearing? Please submit your comments or request for a Public Hearing in writing no later than May 1, 2012 to Caltrans Environmental Planning, Attention G. William "Trais" Norris, III, Senior Environmental Planner, 855 "M" Street, Suite 200, Fresno, CA 93721. The date we will begin accepting comments is March 21, 2012. If there are no major comments or requests for a Public Hearing, Caltrans will proceed with the projects design.

CONTACT
 For more information, please contact Suzie Holdridge, Project Manager, at (559) 243-3432 or by email at suzie_holdridge@dot.ca.gov, or G. William "Trais" Norris, III, Senior Environmental Planner, at (559) 445-6447 or by email at trais_norris@dot.ca.gov.

SPECIAL ACCOMMODATIONS
 Individuals who require special accommodations (American Sign Language Interpreter, accessible seating, documentation in alternative formats, etc.) are required to contact the District 6 Public Affairs Office at (559) 444-2409. Telecommunications Devices for the Deaf (TDD) users may contact the California Relay Service TDD voice line at 1 (800) 735-2829, or locally at (559) 488-4066.

FILED

MAR 22 2012

FRESNO COUNTY CLERK
By *[Signature]*
DEPUTY
E201210000112

Response to Comment from the Fresno County Clerk

With the County Clerk's receipt date stamp on the Caltrans letter, the Fresno County Clerk acknowledges that the draft environmental document was filed with the Fresno County Clerk.

Comments from the San Joaquin Valley Air Pollution Control District



May 1, 2012

G. William "Trais" Norris III
Department of Transportation
District 6
855 M Street, Suite 200
Fresno, CA 93721

Project: Initial Study/Proposed Mitigated Negative Declaration for the Jacalitos Creek Bridge Replacement Project

District CEQA Reference No: 20120156

Dear Mr. Norris:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above consisting of the replacement of the Jacalitos Creek Bridge, located 4 miles east of the City of Coalinga on State Route 33 in Fresno County, for its potential impact on air quality and offers the following comments:

1. The initial study/proposed mitigated negative declaration (document) concludes that the proposed project would generate construction emissions and compliance with District rules and regulations would reduce construction-related air quality impact and determined 'no impact' on air quality. The District does not agree with the "no impact" determination. The District recommends the document be amended to reflect that emissions resulting from construction activities would be considered to have a less than significant impact with mitigations.
2. While dust suppression is a key element to achieving attainment of federal PM2.5 standards and maintaining the federal PM10 attainment status, fugitive PM10 emissions are not the only construction emissions of concern. The document refers to District Regulation VIII to reduce fugitive dust emissions and diesel retrofit technologies outlined in the Congestion Mitigation and Air Quality Improvement Program provisions (for mobile source air toxics); however, these regulations and provisions may or may not include measures to reduce exhaust emissions from construction equipment.

The District recommends inclusion of strategies to reduce construction exhaust emissions of NOx and PM10 and/or clarify the Congestion Mitigation and Air Quality

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-8000 FAX: (559) 230-8061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

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2

District CEQA Reference No: 20120156

Improvement Program provisions that are applicable to construction exhaust emissions. Feasible mitigation of construction exhaust emission includes use of construction equipment powered by engines meeting, at a minimum, Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations.

4. The District has reviewed the information provided and determined this project is exempt under District Rule 9510 (Indirect Source Review) section 4.4.1; reconstruction of a development project that is damaged or destroyed, and is rebuilt to essentially the same use and intensity. Therefore, District Rule 9510 requirements and related fees do not apply to the project referenced above.
5. The proposed project may be subject to District Rules and Regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

If you have any questions or require further information, please call Patia Siong at (559) 230-5930.

Sincerely,

David Warner
Director of Permit Services



Arnaud Marjollet
Permit Services Manager

DW: ps

Cc: File

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4

Response to Comments from the San Joaquin Valley Air Pollution Control District

Thank you for your comments.

Response to Comment #1: Caltrans agrees that the project would cause construction-generated air pollutants. In order to minimize temporary construction-generated air pollution, Caltrans Standard Specifications pertaining to dust control and dust palliative requirements would be used during construction and should effectively reduce and control emissions. Although Caltrans does not consider the use of Standard Specifications and Best Management Practices mitigation, the air quality determination in the Mitigated Negative Declaration page of this document has been changed from no impact to no significant impact.

Response to Comment #2: Caltrans Standard Specification 14-9.01 “Air Pollution Control” requires the contractor to follow emission reduction regulations mandated by the California Air Resources Board. The contractor would also be required to comply with Section 114 of the Clean Air Act.

Response to Comment #3: Caltrans agrees that the project is not subject to District Rule 9510 (Indirect Source Review).

Response to Comment #4:

- a) Regulation VIII (Fugitive PM10 Prohibitions): Caltrans Standard Specifications pertaining to dust control and dust palliatives are required to be a part of all construction contracts and should effectively reduce and control construction emissions impacts. The provisions of the Caltrans Standard Specifications (specifically, Section 14-9.03, “Dust Control” and Section 14-90.1, “Air Pollution Control”) require the contractor to comply with the San Joaquin Valley Air Pollution Control District rules, ordinances, and regulations.
- b) b) Rule 4102 (Nuisance): The project is not subject to this rule because the rule applies to sole source emissions such as factories that emit pollutants.
- c) Rule 4601 (Architectural Coatings): The contractor would be obligated to follow all air pollution control rules, regulations, ordinances, and statutes that

apply to any work performed under our Standard Specification 14-9.01, Air Pollution Control.

- d) Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations): Should any types of asphalt listed in District Rule 4641 be used for this project, Caltrans would maintain the required recordkeeping listed in Section 6 of this rule.

- e) Rule 4002 (National Emission Standards for Hazardous Air Pollutants): Caltrans would comply with Rule 4002 by including a Non-Standard Special Provision into the construction contract that requires the contractor to notify the San Joaquin Valley Air Pollution Control District a minimum of 10 working days prior to starting demolition or renovation activities as required by the National Emission Standards for Hazardous Air Pollutions (40 Code of Federal Regulations Part 61, Subpart M; California Health and Safety Code section 39658[b][1]).

Caltrans Standard Specifications require the contractor to comply with all pertinent Air District rules and requirements.

Comments from the Native American Heritage Commission

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
de_nahc@pacbell.net



April 27, 2012

Mr. G. William "Trais" Norris, III, Environmental Planner
California Department of Transportation – District 6
855 "M" Street, Suite 200
Fresno, CA 93721

Re: SCH#2012031067; Notice of Completion; proposed Mitigated Negative Declaration for the "Jacalitos creek Bridge (#42-0072) Replacement Project;" located near the City of Coalinga; Fresno County, California.

Dear Mr. Norris:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3rd 604).

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC did not conduct a Sacred Lands File (SLF) search within the 'area of potential effect (APE).

The NAHC "Sacred Sites," as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254 (r).

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached [list of Native American contacts](#), to see if your proposed project might impact Native American cultural resources and to

obtain their recommendations concerning the proposed project. Pursuant to CA Public Resources Code § 5097.95, the NAHC requests cooperation from other public agencies in order that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

Furthermore, the NAHC if the proposed project is under the jurisdiction of the statutes and regulations of the National Environmental Policy Act (e.g. NEPA; 42 U.S.C. 4321-43351). Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq.*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Confidentiality of "historic properties of religious and cultural significance" should also be considered as protected by California Government Code §6254(r) and may also be protected under Section 304 of the NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

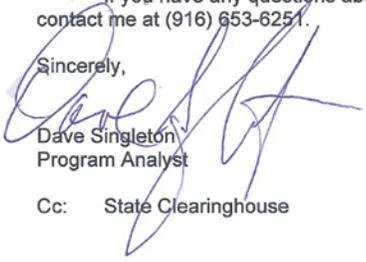
Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for inadvertent discovery of human remains mandate the processes to be followed in the event of a discovery of human remains in a project location other than a 'dedicated cemetery'.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

Finally, when Native American cultural sites and/or Native American burial sites are prevalent within the project site, the NAHC recommends 'avoidance' of the site as referenced by CEQA Guidelines Section 15370(a).

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,



Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

Native American Contacts
Fresno County
April 27, 2012

Big Sandy Rancheria of Mono Indians
Liz Hutchins Kipp, Chairperson
P.O. Box 337 / 37302 Western Mono
Auberry , CA 93602
ck@big sandy rancheria.com
(559) 855-4003
(559) 855-4129 Fax

Sierra Nevada Native American Coalition
Lawrence Bill, Interim Chairperson
P.O. 125 Mono
Dunlap , CA 93621 Foothill Yokuts
(559) 338-2354 Choinumni

Cold Springs Rancheria of Mono Indians
Robert Marquez, Chairperson
P.O. Box 209 Mono
Tollhouse , CA 93667
(559) 855-5043
559-855-4445 - FAX

Choinumni Tribe; Choinumni/Mono
Lorrie Planas
2736 Palo Alto Choinumni
Clovis , CA 93611 Mono

Santa Rosa Rancheria
Rueben Barrios, Chairperson
P.O. Box 8 Tache
Lemoore , CA 93245 Tachi
(559) 924-1278 Yokut
(559) 924-3583 Fax

Table Mountain Rancheria
Bob Pennell, Cultural Resources Director
P.O. Box 410 Yokuts
Friant , CA 93626-0177
(559) 325-0351
(559) 217-9718 - cell
(559) 325-0394 FAX

Dumna Wo-Wah Tribal Government
Robert Ledger SR., Tribal Chairperson
2216 East Hammond Street Dumna/Foothill
Fresno , CA 93602 Mono
ledgerrobert@ymail.com
559-519-1742 - office

Kings River Choinumni Farm Tribe
John Davis, Chairman
1064 Oxford Avenue Foothill Yokuts
Clovis , CA 93612-2211 Choinumni
(559) 307-6430

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#1012031067; CEQA Notice of Completion; proposed Mitigated Negative Declaration for the Jacalitos Bridge Replacement Project; located east of the City of Coalinga; Fresno County, California.

Native American Contacts

Fresno County
April 27, 2012

Dunlap Band of Mono Historical Preservation Soc
Mandy Marine, Board Chairperson
P.O. Box 18 Mono
Dunlap, CA 93621
mandy_marine@hotmail.com
559-274-1705

Santa Rosa Tachi Rancheria
Lalo Franco, Cultural Coordinator
P.O. Box 8 Tachi
Lemoore, CA 93245 Tache
(559) 924-1278 - Ext. 5 Yokut
(559) 924-3583 - FAX

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. Foothill Yokuts
Salinas, CA 93906 Mono
kwood8934@aol.com Wuksache
831-443-9702

Dumna Wo-Wah Tribal Government
Eric Smith, Cultural Resource Manager
2216 East Hammond Street Dumna/Foothill
Fresno, CA 93602 Mono
nuem2007@yahoo.com
559-519-1742 - office

Chowchilla Tribe of Yokuts
Jerry Brown
10553 N. Rice Road North Valley Yokuts
Fresno, CA 93720
559-434-3160

Dumna Wo-Wah Tribal Government
John Ledger, Assistant Cultural Resource Manager
2216 East Hammond Street Dumna/Foothill
Fresno, CA 93602 Mono
ledger17bonnie@yahoo.com
559-519-1742 - office

Cold Springs Rancheria of Mono Indians
Tribal Administrator
PO Box 209 Mono
Tollhouse, CA 93667
coldsprgstriben@netptc.net
(559) 855-5043

(559) 855-4445 - FAX

This list is current only as of the date of this document.

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This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#1012031067; CEQA Notice of Completion; proposed Mitigated Negative Declaration for the Jacalitos Bridge Replacement Project; located east of the City of Coalinga; Fresno County, California.

Response to Comments from the Native American Heritage Commission

Thank you for your comments.

Native American consultation was conducted in coordination with the Native American Heritage Commission for this project. This coordination was summarized in Chapter 3, Comments and Coordination and is documented in the Historic Property Survey Report with attached Archeological Survey Report (February 16, 2012) and the Supplemental Historic Property Survey Report with attached Supplemental Archeological Survey Report (August 7, 2012) .

This environmental document and supporting technical reports were prepared to meet the requirements of the California Environmental Policy Act, the National Environmental Policy Act, and other state and federal laws.

No historical resources (including archeological resources) were identified within the project area limits. Therefore, Caltrans determined there would be no impacts to historical resources. It is Caltrans policy to comply with Public Resources Code Section 5097.98, California Government Code Section 27491, and Health and Safety Code Section 7050.5 in the event human remains are discovered.

Comments from Pacific Gas and Electric Company



Sarah Gassner, Supervisor
Environmental Planning and
Permitting

1455 E. Shaw Ave., Bag 31
Fresno, CA 93710
Office: (559) 263-5073
Fax: (559) 263-5720
Email: SEGi@pge.com

May 5, 2012

G. William "Trais" Norris, III
Senior Environmental Planner
California Department of Transportation
855 M Street
Fresno, CA 93721

RE: Comment to the Draft Initial Study with Proposed Mitigated Negative Declaration for the Jacalitos Creek Bridge Replacement Project

Dear Mr. Norris:

Thank you for the opportunity to review the Initial Study/Proposed Mitigated Negative Declaration for the proposed Jacalitos Creek Bridge Replacement Project in Fresno County. Pacific Gas and Electric Company (PG&E) has the following comments to offer regarding the proposed project by California Department of Transportation (Caltrans).

PG&E is subject to the jurisdiction of the California Public Utilities Commission (CPUC) and must comply with CPUC General Order 131-D on the construction, modification, alteration, or addition of all electric transmission facilities (i.e., lines, substations, switchyards, etc.). In most cases where PG&E's electric facilities are under 200 kV and are part of a larger project (e.g., highway project), G.O. 131-D exempts PG&E from obtaining an approval from the CPUC provided its planned facilities have been included in the larger project's California Environmental Quality Act (CEQA) review. PG&E may proceed with construction once PG&E has filed notice with the CPUC and the public on the project's exempt status, and the public has had a chance to protest PG&E's claim of exemption. If PG&E facilities are not adequately evaluated in the larger project's CEQA review, or if the project does not qualify for the exemption, PG&E may need to seek approval from the CPUC (i.e., Permit to Construct), taking as much as 2 years or more since the CPUC would need to conduct its own environmental evaluation (e.g., Initial Study).

Section 2.1.2 (Utility and Emergency Services) of the Study explains that "two power poles on the south side of State Route 33" would require relocation. One pole south west and the other south east are part of PG&E's Gates-Coalinga 70 kV Transmission Line. Also along and under this line is a PG&E 3-phase distribution line. The Section also explained that temporary impacts to services would occur "during utility relocations"

Mr. Norris

Page 2

May 5, 2011

PG&E recommends to Caltrans the following:

- Coordinate with PG&E's Environmental Planning and Permitting on the development and review of agency permits and authorizations required;
- Include impacted PG&E facilities as necessary in its project description and evaluate under CEQA all impacts caused by PG&E facilities relocation; and
- Include construction work and design of utility facilities impacted as appropriate in the permits and authorizations required by resource agencies.

The above recommendations could reduce the project's cost and schedule by eliminating the need for additional environmental evaluation for the relocation, replacement, or modification of PG&E facilities.

To avoid disruptions and power outages to PG&E customers, Caltrans should coordinate with PG&E on plans to alleviate "temporary" impacts and avoid accidental impacts to PG&E facilities during construction.

PG&E is committed to working with Caltrans on the Jacalitos Creek Bridge Replacement Project while maintaining its commitment to provide timely, reliable and cost effective electric service to its PG&E customers. Please contact Stephen Ruiz, Senior Land Planner, by telephoning (559) 263-7376 or emailing at S2Rj@PGE.COM if you have any questions concerning our comments.

Sincerely,



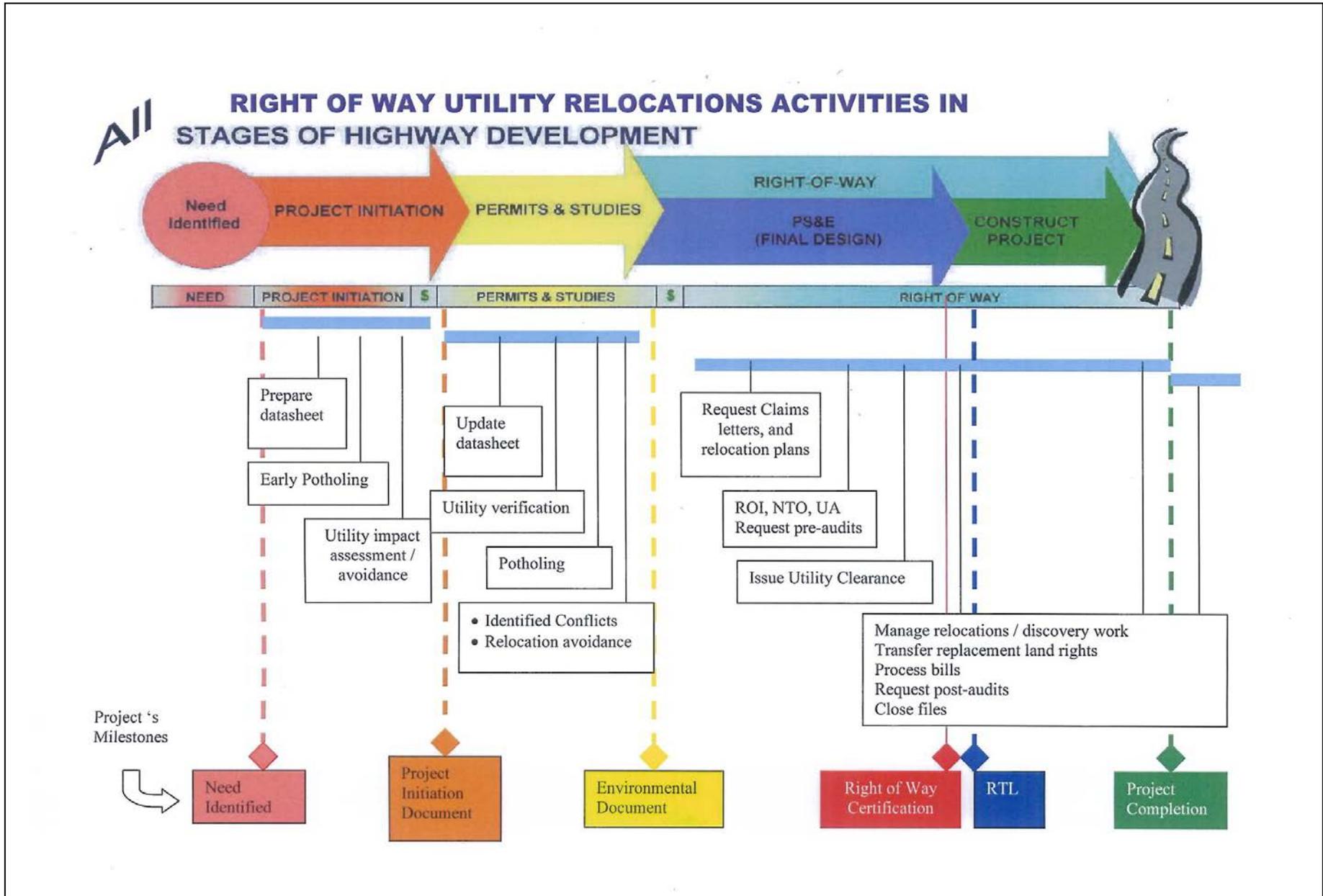
Sarah Gassner
Supervisor, Environmental Planning and Permitting

Response to Comments from Pacific Gas and Electric Company

Thank you for your comments and your recommendations to coordinate activities that would assist in securing the required authorizations and approvals from various agencies. Caltrans is committed, when possible, to provide utility companies affected by the project with preliminary information that may assist in the early assessment of potential environmental impacts during the development and design of transportation projects.

The utilities mentioned in this environmental document were preliminarily identified by design for the planning phase of the project. Identification of utilities that require relocation is not finalized until the design phase of the project, which is after the environmental document is finalized. During the design phase, the functional divisions within design determine what is required for the project and what the potential impacts to existing utility facilities may be within the project area. The designer would then prepare a conflict map at or near 60 percent design completion. The conflict map and the request for a relocation plan are then sent by the Caltrans Utility Coordinator to affected utility companies. The relocation plan usually takes 3 to 6 months to receive (see below for the attached flow chart).

Utility relocation plans are not included in environmental documents since during the planning phase of a project it is not known if utility facilities are in conflict. It is also unknown when and where the affected utility facilities would be relocated. Caltrans does not know this information until the relocation plan is returned and approved by Caltrans. In most instances this occurs late in the project process, after the environmental document is finalized.



List of Technical Studies Bound Separately

- Water Quality Report
- Air Quality and Noise Impact Analysis Compliance
- Visual Impact Assessment (Minor)
- Historic Property Survey Report
- Supplemental Historic Property Survey Report
- Paleontological Identification Report
- Natural Environment Study
- Hazardous Waste Compliance
- Location Hydraulic Study