

State Route 190 Rehabilitation Project

On State Route 190 between State Route 99 and Road 184 in Tulare County

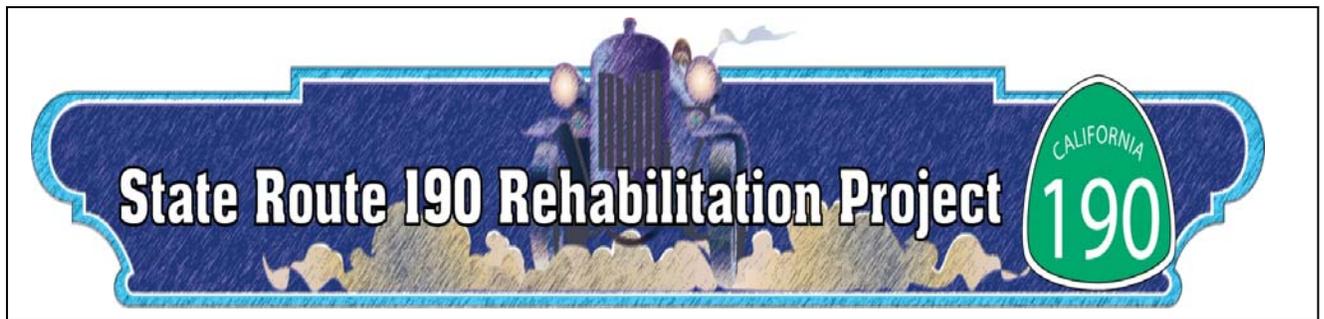
06-TUL-190-0.0/8.0

Project ID 06-0002-0148

Project EA 06-46150

SCH# 2012071019

Initial Study with Mitigated Negative Declaration



Prepared by the
State of California Department of Transportation

April 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 190 between State Route 99 and Road 184 in Tulare County.

The Initial Study and proposed Mitigated Negative Declaration were circulated to the public from July 9, 2012 to August 7, 2012. Comment letters were received on the draft document. Responses to the circulated document are shown in the Comments and Responses section of this document (added since the draft). Elsewhere throughout this document, a line in the right margin indicates a change made since the draft document circulation.

What happens after this?

The proposed project 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/>

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

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SCH # 2012071019
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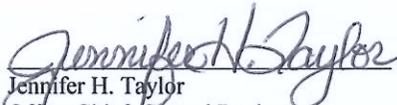
Rehabilitate State Route 190 between State Route 99 and Road 184 in Tulare County
from post mile 0.0 to post mile 8.0

**INITIAL STUDY
with Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation

4/29/13
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 rehabilitate State Route 190 between the communities of Tipton and Poplar in Tulare County (post mile 0.0/8.0). The project includes rehabilitating the pavement, widening the existing shoulders to Caltrans current roadway standards, adding left-turn channelization to improve access to northbound State Route 99 from State Route 190, and relocating utility poles. The shoulder widening would occur mostly on the north side of State Route 190.

Determination

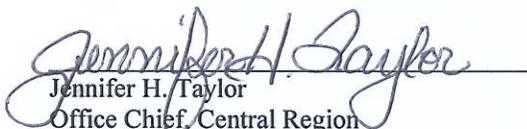
Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study, for the following reasons, the project would not have a significant effect on the environment:

The proposed project would have no effect on land use; growth; community impacts; paleontology; hazardous waste or materials; noise; hydrology and floodplain; geology/soils/seismic/topography; cultural resources; water quality and storm water runoff; visual/aesthetics; natural communities; or plant species.

In addition, the proposed project would have no significant effect on: farmland, relocations and real property acquisition, traffic and transportation/pedestrian and bicycle facilities, utilities/emergency services, air quality, wetlands and other waters, or animal species.

The proposed project would have no significant adverse effect on threatened and endangered species because the following mitigation measures would reduce potential effects to a level of insignificance:

- San Joaquin kit fox—The project would impact 18.44 acres of forging habitat. Caltrans would mitigate for this loss by purchasing 20.28 acres worth of credits from an approved United States Fish and Wildlife Service and California Department of Fish and Wildlife mitigation bank.


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

4/29/13
Date

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List of Abbreviated Terms

Caltrans
CEQA
FHWA
NEPA
PM

California Department of Transportation
California Environmental Quality Act
Federal Highway Administration
National Environmental Policy Act
post mile

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to rehabilitate State Route 190 between the communities of Tipton and Poplar in Tulare County from post mile 0.0 to post mile 8.0 (see Figure 1-1 and Figure 1-2). The project includes rehabilitating pavement, widening the existing shoulders to Caltrans current roadway standards, adding left-turn channelization to improve access to northbound State Route 99 from State Route 190, and relocating utility poles. The shoulder widening would occur mostly on the north side of State Route 190 to minimize the number of utility poles requiring relocation.

Within the project area, State Route 190 is a two-lane undivided conventional highway. State Route 190 originates at State Route 99 near the community of Tipton and heads east toward the Sierra Nevada Mountain Range. State Route 190 is part of the Tulare County Regional Road System that connects and provides access through the communities of Tipton, Poplar, Porterville, and Springville.

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

The proposed project, estimated to cost \$20 million, was programmed in the 2010 State Highway Operation and Protection Program.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to rehabilitate this section of State Route 190.

1.2.2 Need

The following illustrates the need for rehabilitation of State Route 190:

- The existing pavement is deteriorating and uneven.
- The existing roadway does not meet Caltrans current roadway standards.

1.2.3 Roadway Improvements

With 11-foot-wide to 11.7-foot-wide lanes and 1-foot-wide shoulders, State Route 190 within the project area does not meet current Caltrans roadway standards. Project improvements would include 12-foot-wide travel lanes with 8-foot-wide shoulders. The rehabilitation and asphalt overlay would extend the service life on segment of State Route 190, reduce short-term maintenance costs due to constant repair, and improve the structure of the roadbed.

The accident history within the project limits for the most recent three-year study period (February 2006–January 2009) shows that the actual total accident rates are higher than the statewide average for similarly designed roadways (see Table 1.1). A total of 45 accidents were recorded during this time period (see Table 1.2). About 31 percent of the accidents (14) were broadsides and about 64 percent of the broadsides (9) were attributed to failure to yield.

Table 1.1 Accident Rates on State Route 190 Within the Project Area (February 2006 to January 2009)

| | Actual | | | State Average | | |
|---------------|--------|----------------|-------|---------------|------------------|-------|
| | Fatal | Fatal & Injury | Total | Fatal | Fatal and Injury | Total |
| SR 190 | 0.027 | 0.52 | 1.23 | 0.037 | 0.35 | 0.83 |

Source: Department of Transportation Office of Traffic Engineering. Accident Rate (per million vehicle miles)

Table 1.2 Types of Collisions on State Route 190 (February 2006 to January 2009)

| | Head-On | Side-Swipe | Rear-End | Broad-Side | Hit Object | Over Turn | Other |
|----------------------|----------|------------|----------|------------|------------|-----------|----------|
| Influence of Alcohol | | | | 1 | 3 | | |
| Failure to Yield | | | | 9 | | | |
| Improper Turn | | 2 | | 1 | 7 | 7 | |
| Speeding | | | 5 | | | | 1 |
| Other Violation | | 2 | 1 | 3 | 1 | | |
| Other Than Driver | 1 | | | | | | 1 |
| Totals | 1 | 4 | 6 | 14 | 11 | 7 | 2 |

Source: Department of Transportation Office of Traffic Engineering

Currently, drivers that drift off the highway have no paved shoulders or uneven shoulders to assist in correcting vehicle direction. Widening the shoulders to Caltrans roadway standards would help improve safety on this section of State Route 190 by providing extra room for drivers to recover and avoid accidents.

At times, westbound vehicles waiting to turn left from State Route 190 onto the State Route 99 northbound on-ramp may hinder traffic flow because there is no left-turn lane. The existing condition forces westbound traffic to slow or stop until oncoming traffic passes and the turning vehicle can proceed. To increase safety, the project proposes adding left-turn channelization to improve access to northbound State Route 99 from State Route 190.

1.3 Alternatives

A Build Alternative and a No-build Alternative are under consideration.

1.3.1 Build Alternative

The Build Alternative would rehabilitate the pavement on State Route 190 between the communities of Tipton and Poplar in Tulare County (post mile 0.0/8.0). This alternative would also widen the existing shoulders to Caltrans current roadway standards, add left-turn channelization to improve access to northbound State Route 99 from State Route 190, and relocate utility poles. The shoulder widening would occur mostly on the north side of State Route 190 to minimize the number of utility poles requiring relocation. Currently, the project would relocate 32 utility poles on the south side of State Route 190 and 38 utility poles on the north side of State Route 190. All utility poles would be moved beyond the 20-foot-wide clear recovery zone beyond the white line at edge of pavement. The headwalls of an irrigation ditch and the side slopes of two retention basins would be moved beyond the 20-foot-wide clear recovery zone.

Side ditches would be placed along State Route 190. Existing culverts along State Route 190 would be realigned to fit these ditches. The Build Alternative would require 40 feet of additional right-of-way from the north side of State Route 190 and 25 feet of additional right-of-way from the south side of State Route 190. The cost of the Build Alternative is \$20 million.



Figure 1-1 Project Vicinity Map

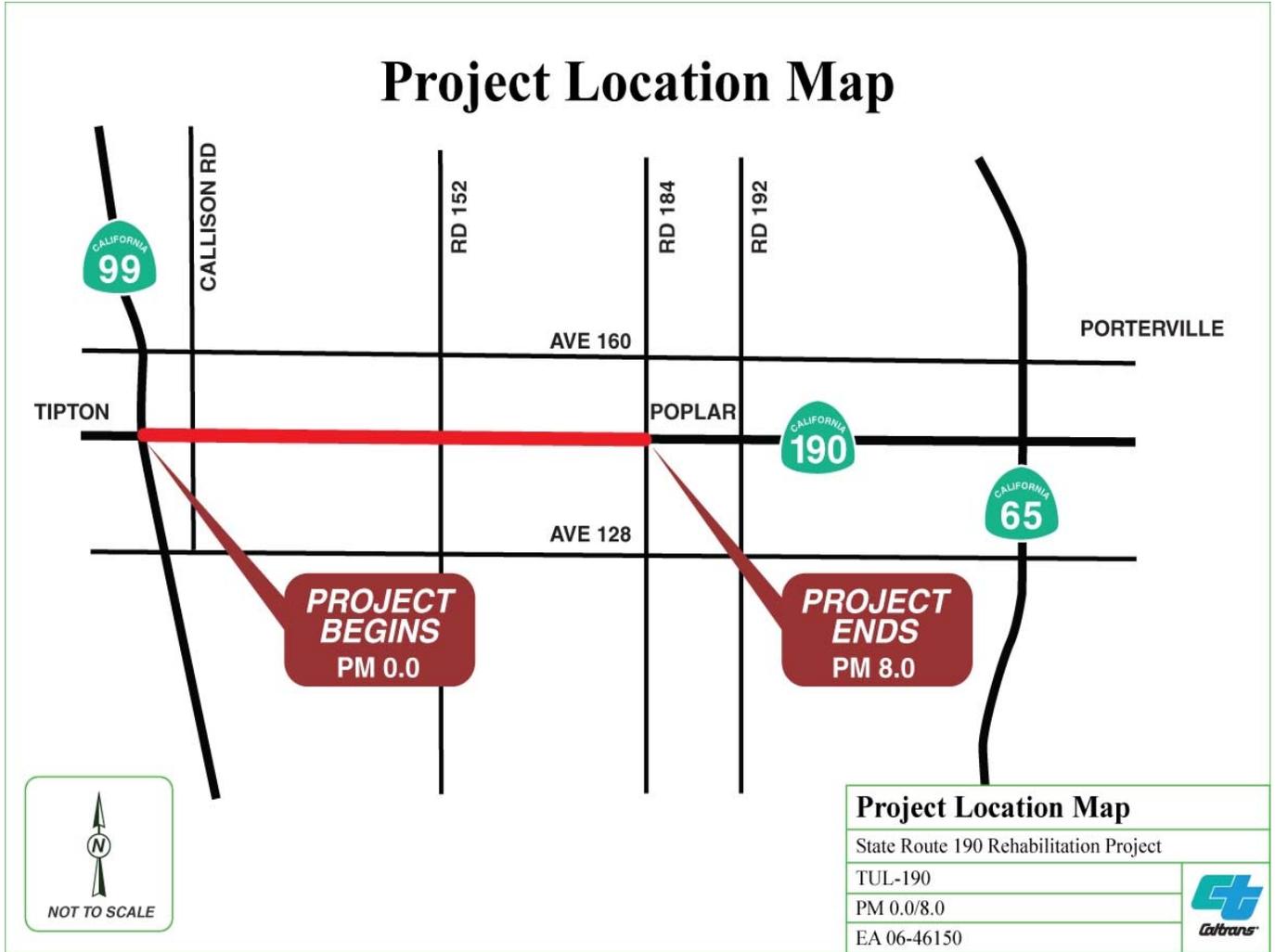


Figure 1-2 Project Location Map

1.3.2 No-Build Alternative

The No-Build Alternative would keep State Route 190 in its existing condition. The No-Build Alternative does not meet the purpose and need of this project, as it would not fix the structural section problems and uneven pavement on the existing section of State Route 190.

1.3.3 Identification of a Preferred Alternative

Because it has the greatest project benefits with regard to any associated impacts, Caltrans has identified the Build Alternative as the preferred alternative. The operational improvements provided by the Build Alternative include adding left-turn channelization to improve access to northbound State Route 99 from State Route 190 and widening the existing shoulders to Caltrans current roadway standards.

1.3.4 Alternatives Considered but Eliminated from Further Discussion

An alternative was considered that would have widened State Route 190 evenly on both the north and south sides of the roadway. However, that alternative was dropped because of the high number of utility poles needing relocation and right-of-way costs.

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 done during the project design phase |
| U.S. Army Corps | Section 404 Nationwide | Would be done during the project design phase |
| United States Fish and Wildlife Service | Programmatic Biological Opinion | Received on March 8, 2013 |

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 state, regional, and local plans: the 2010 State Highway Operation and Protection Program (SHOPP), the 2011 Tulare County Regional Transportation Plan, and the 2008 Tulare County General Plan.
- Growth—The project would not promote growth because it is not a capacity-increasing project. The project is an operational improvements project that would rehabilitate the existing roadway (Project Scope Summary Report, June 2010).
- Community Impacts— The project is an operational improvements project that would rehabilitate the existing roadway between the communities of Tipton and Poplar. The project would not disrupt the community character or cohesion or result in any relocation of businesses or residences (Field Visit, 2011).
- Visual/Aesthetics—No scenic resources would be affected by the project (Scenic Resources Evaluation, May 2012).
- Cultural Resources—No National Register-eligible historic properties, rural historic cultural landmarks, or archeological resources were identified in the project area (Historic Property Survey Report, April 2012).
- Hydrology and Floodplain—The project is not within the 100-year floodplain. To handle the shoulder widening, the headwalls of an irrigation ditch and the side

slopes of two retention basins would be moved beyond the 20-foot-wide clear recovery zone. Side ditches would be placed along State Route 190. Culverts would be realigned to fit these ditches (Hydraulics Memo with attached Floodplain Analysis, October 2008).

- **Water Quality and Storm Water Runoff**—With the incorporation of best management practices and proper and accepted engineering practices, the project would not have adverse effects on surface or groundwater runoff. A Storm Water Pollution Prevention Plan would be prepared and used in this project (Water Quality Compliance Memo, May 2012).
- **Geology/Soils/Seismic/Topography**—No known faults exist in the project area. The project would not result in substantial soil erosion or landslides. The project is not on a geologic unit or soil that is unstable or that would become unstable as a result of the project (U.S. Geological Survey Earthquake Hazards Program, April 2011).
- **Paleontology**—Excavation for this project is limited and unlikely to encounter paleontological resources (Paleontological Identification Report, May 2012).
- **Hazardous Waste or Materials**—An aerially deposited lead study indicated that lead in the soil was detected within the project area but at concentrations below regulatory thresholds. A lead compliance plan is required for this project. A site investigation for pesticides, Title 22 metals, and polychlorinated biphenyls (PCBs) was conducted separately for portions of the project corridor: the Lower Tule River Irrigation District property and along the Caltrans right-of-way adjacent to the Southern California Edison substation. Results indicated there would be no restrictions for disposal or soil reuse options (Preliminary Site Assessment Summary, May 2012).
- **Noise and Vibration**—This project is not a Type 1 project (the construction of a highway on a new location, the physical alteration of an existing highway that changes the horizontal or vertical alignment, or an increase in lanes) and therefore is not subject to Caltrans Traffic Noise Analysis Protocol (Noise Compliance Memo, May 2012).
- **Natural Communities**—There are no known natural communities of concern within the project area (Natural Environment Study, June 2012).
- **Plant Species**—There are no known special-status plant species within the project area (Natural Environment Study, June 2012).

- **Invasive Species**—No species have been identified within the project limits that have special regulations or requirements based on their status on either the Federal or California Noxious Weeds list. To comply with Executive Order 13112 pertaining to invasive species, best management practices would be used to reduce the potential spread of noxious weeds to or from the project site. This would include using clean dirt for fill, properly disposing of any excavated materials, and deploying proper erosion control techniques. (Natural Environment Study, June 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 their activities could irreversibly 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 non-agricultural uses. The main purposes of the Williamson Act are 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 Tulare County Agriculture Commissioner reported a total agricultural production value of \$4,863,705,000 in 2010, an increase of 20 percent from the 2009 production value. Milk is the leading agricultural commodity in Tulare County. Tulare County's agricultural strength is based on the diversity of the crops produced. The 2010 Tulare County Agricultural Crop Report assumes that although individual commodities may experience difficulties from year to year Tulare County continues to produce high-quality crops.

Soils within the project area are primarily Akers-Akers, Colpien loam, Exeter loam, Nord fine sandy loam, Tagus loam, Tujunga loamy sand, and Yettem sandy loam. Parcels within the project area support a mix of row crops like alfalfa, corn, wheat, and barley. These crops are routinely rotated throughout the seasons.

Environmental Consequences

The Natural Resources Conservation Service Farmland Conversion Impact Rating was completed for the project in October 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 Build Alternative would require 35 acres of prime and unique farmland. The total amount of right-of-way required for the project is 40 acres. The remaining five acres is currently used for roads, driveways, and irrigation ditches and is not considered “farmland.”

Although there are parcels listed under the Williamson Act, the amount of right-of-way would not warrant cancellation of any Williamson Act contracts. Forty-seven parcels would require small strips of land from the frontage parcels along State Route 190. About 37 parcels are listed under the Williamson Act. The number of acres acquired from each parcel in relation to the size of each parcel is considered minimal.

The Tulare County office of the Natural Resources Conservation Service determined the project would convert to nonagricultural use prime and unique farmland as well as farmland in the county or local government unit having a relative value of 90 out of 100 possible points under these criteria. Additional points were factored in on the Natural Resources Conservation Service form for a total impact rating of 176 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

| Alternatives | Land Converted (acres) | Prime and Unique Farmland-(acres) | Percentage of Farmland in County | Percentage of Farmland in State | Farmland Conversion Impact Rating |
|--------------|------------------------|-----------------------------------|----------------------------------|---------------------------------|-----------------------------------|
| Build | 35 | 35 | 0.00004 | 0 | 176 |
| No-Build | 0 | 0 | 0 | 0 | 0 |

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

The Farmland Conversion Impact Rating for the project is 176 points, a level that would trigger consideration of greater protection under the Farmland Protection Policy Act. Although the Farmland Conversion Impact Rating for the project is over 160 points, the small amount of right-of-way required for this project—small strips of land from the frontage parcels along State Route 190—is not expected to have an adverse effect on farmland within the project area. The project would not require relocation of any farms or dairies or bisect properties. Of the total amount of land in the 47 affected parcels, only 0.08 percent would be used for the project.

Avoidance, Minimization, and/or Mitigation Measures

The impacts to farmland would be considered minimal and would not require mitigation.

2.1.2 Community Impacts

2.1.2.1 Relocations and Real Property Acquisition

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

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code 2000d, et seq.) (see Appendix B, Title VI Policy Statement).

Affected Environment

The majority of parcels within the project area contain farmland (row crops). Dairies and residential units are also within the project area. Utilities include irrigation ditches, two retention basins, and a Southern California Edison substation. For more information on utilities affected by the project, please see Section 2.1.3, Utilities/Emergency Services.

Environmental Consequences

The project would not require the relocation of any businesses, residential units, or building structures. It is estimated that the project would require about 40 acres of

new right-of-way to handle the proposed shoulder widening along State Route 190. The new right-of-way would consist of small strips of land from the frontage parcels along State Route 190. Almost all required right-of-way would come from farmland parcels (see Table 2.2 for a list of parcels and estimated right-of-way requirements).

Table 2.2 Required Right-of-Way for the Build Alternative

| | Assessor's Parcel Number | Total parcel size (acres) | Actual right-of-way required (acres) |
|----|--------------------------|---------------------------|--------------------------------------|
| 1 | 230-240-007 | 22.37 | 0.37 |
| 2 | 230-240-006 | 48.09 | 0.54 |
| 3 | 230-240-012 | 2 | 0.08 |
| 4 | 300-030-009 | 43.21 | 0.78 |
| 5 | 232-130-011 | 119.75 | 0.76 |
| 6 | 232-130-007 | 39.91 | 1.06 |
| 7 | 300-030-027 | 87.37 | 0.98 |
| 8 | 232-130-012 | 79.89 | 1.22 |
| 9 | 232-130-006 | 79.93 | 1.19 |
| 10 | 300-030-024 | 244.08 | 0.57 |
| 11 | 300-030-023 | 0.78 | 0.04 |
| 12 | 232-170-001 | 296.22 | 1.99 |
| 13 | 232-170-009 | 169.6 | 2.09 |
| 14 | 300-040-001 & 009 | 244.18 | 0.61 |
| 15 | 300-040-020 | 77.37 | 0.55 |
| 16 | 232-170-008 | 39.91 | 1.06 |
| 17 | 232-170-006 | 39.89 | 1.04 |
| 18 | 300-040-025 & 026 | 335.36 | 0.72 |
| 19 | 232-170-005 | 159.61 | 2.1 |
| 20 | 232-160-015 & 016 | 79.54 | 1.06 |
| 21 | 232-160-014 | 79.57 | 1.04 |
| 22 | 300-090-024 | 329.18 | 0.66 |
| 23 | 232-160-013 | 159.26 | 2.11 |
| 24 | 300-090-030 | 1.08 | 0.02 |
| 25 | 300-090-033 | 2.35 | 0.1 |
| 26 | 232-160-012 | 76.4 | 0.89 |
| 27 | 232-160-022 | 33.31 | 0.91 |
| 28 | 300-090-025 | 20.02 | 0.11 |

| | Assessor's Parcel Number | Total parcel size (acres) | Actual right-of-way required (acres) |
|----|--------------------------|---------------------------|--------------------------------------|
| 29 | 300-090-002 | 26.51 | 0.09 |
| 30 | 300-090-003 | 110.18 | 0.18 |
| 31 | 232-160-024 & 025 | 66.62 | 1.81 |
| 32 | 300-090-027 & 029 | 122.01 | 0.39 |
| 33 | 236-230-011 & 012 | 158.56 | 1.82 |
| 34 | 300-100-002 | 155.35 | 0.44 |
| 35 | 236-230-010 | 159.4 | 1.98 |
| 36 | 300-100-002 | 0.99 | 4sf* |
| 37 | 300-100-003 | 301.74 | 0.43 |
| 38 | 236-230-023 & 026 | 68.06 | 1.12 |
| 39 | 236-230-027 | 39.93 | 1.06 |
| 40 | 300-100-004 | 79.02 | 0.23 |
| 41 | 300-100-009 & 010 | 79.23 | 0.18 |
| 42 | 236-230-015 | 39.31 | 1.05 |
| 43 | 236-230-019 | 40.51 | 0.98 |
| 44 | 300-100-006 | 79.42 | 0.24 |
| 45 | 300-100-007 | 79.63 | 0.35 |
| 46 | 236-220-001 | 159.33 | 1.25 |
| 47 | 300-110-041 | 42.8 | 1.23 |
| | | Total: | 40 Acres** |

Source: 2012 Right-of-Way Preliminary Appraisal Maps

*Square Feet

**Total number of acres is 39.48. The number was rounded up for consistency purposes.

Avoidance, Minimization, and/or Mitigation Measures

A Caltrans appraiser would determine just compensation for property along with any damages caused to the remainder such as repair to irrigation lines.

2.1.3 Utilities/Emergency Services

Affected Environment

This section discusses information obtained from the Right-of-Way Data Utility Sheet Memo (March 2010) completed for the proposed project. Utilities within the project area include power poles, telephone poles, underground cable, gas line, irrigation ditches, and two retention basins (see Table 2.3).

Table 2.3 Utilities Within the Project Area

| Utility Ownership | Facility |
|--------------------------------------|-----------------------------|
| Southern California Edison | Power Poles, Fence |
| Southern California Gas | Gas Line |
| AT&T | Underground Cable |
| AT&T | Telephone Poles |
| Lower Tule River Irrigation District | Irrigation Ditch, Headwalls |
| Lower Tule River Irrigation District | Retention Basins |

The Tulare County Sherriff’s Department uses State Route 190 to access communities from Tipton to Springville. The California Highway Patrol is responsible for traffic enforcement on State Route 190.

Environmental Consequences

On State Route 190, the project would require the relocation of 32 utility poles on the south side and 38 utility poles on the north side. All utility poles would be moved beyond the 20-foot-wide clear recovery zone beyond the white line at edge of pavement. An underground cable and a gas line might need relocation during construction. The headwalls of an irrigation ditch and the side slopes of two retention basins would be moved beyond the 20-foot-wide clear recovery zone. Lastly, side ditches would be placed along State Route 190. Existing culverts along State Route 190 would be realigned to fit these ditches. A fence around the Southern California Edison substation would also be affected.

The project would have a beneficial effect on fire protection, law enforcement, and emergency services by repairing the roadway, widening the shoulders, and providing a safer left-turn channelization to access State Route 99 from State Route 190. Although construction of the project would create temporary traffic delays, a traffic management plan would be used to minimize wait times.

Avoidance, Minimization, and/or Mitigation Measures

Any utility relocation outside the boundaries of the environmental study area completed for this project would require separate environmental studies. Caltrans

would coordinate with Southern California Edison, Southern California Gas, AT&T, and the Lower Tule River Irrigation District to relocate utilities.

A Transportation Management Plan would be developed to minimize delays and maximize safety for motorists during construction. The Transportation Management Plan would include but is not limited to the following:

- Use press releases managed by the Caltrans public information office.
- Use fixed and portable changeable message signs.
- Use the Caltrans Highway Information Network.
- Use a Traffic Detour Plan and an emergency detour route.
- Use reversing traffic control.

2.1.4 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 pedestrian and bicyclist safety 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

Within the project area, State Route 190 is a two-lane undivided conventional highway. State Route 190 originates at State Route 99 near the community of Tipton and heads east toward the Sierra Nevada Mountain Range. State Route 190 is part of the Tulare County Regional Road System that connects and provides access through the communities of Tipton, Poplar, Porterville, and Springville. Pedestrians are not allowed on State Route 190. This section of State Route 190 is not part of the Tulare

County Bicycle Plan that proposes a Class II bicycle route along Avenue 152 (one mile north and parallel to State Route 190). Although bicycles are allowed on State Route 190, the shoulders provided for riders are narrow.

The accident history within the project limits for the most recent three-year study (February 2006–January 2009) shows that the actual total accident rates are higher than the statewide average for similarly designed roadways (see Table 1.1). A total of 45 accidents were recorded during this time period (see Table 1.2). Fourteen, or about 31 percent, of the accidents were broadsides and nine, or about 64 percent, of the broadsides were attributed to failure to yield.

Environmental Consequences

The project would widen the shoulders on State Route 190 to comply with Caltrans roadway standards. Widening the shoulders to Caltrans roadway standards would help improve safety on this section of State Route 190 by providing extra room for drivers that leave the travel lane to recover and avoid accidents. The wider shoulders would also make it safer for bicyclists to use this route.

While building the project, there would be temporary traffic delays.

Avoidance, Minimization, and/or Mitigation Measures

A Transportation Management Plan would be developed to minimize delays and maximize safety for motorists during construction. The Transportation Management Plan would include, but is not limited to the following:

- Use press releases managed by the Caltrans public information office.
- Use fixed and portable changeable message signs.
- Use Caltrans Highway Information Network.
- Use a Traffic Detour Plan and an emergency detour route.
- Use Reversing traffic control.

2.2 Physical Environment

2.2.1 Air Quality

Regulatory Setting

The Federal Clean Air Act, as amended in 1990, is the federal law that governs air quality. The California Clean Air Act of 1988 is its companion state law. These laws

and related regulations by the United States Environmental Protection Agency and California Air Resources Board set standards for the quantity of pollutants that can be in the air. At the federal level these standards are called National Ambient Air Quality Standards. These standards and state ambient air quality standards have been established for six transportation-related criteria pollutants linked to potential health concerns. The criteria pollutants are carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), lead (Pb), sulfur dioxide (SO₂), and particulate matter (PM). Particulate matter is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM₁₀) and particles of 2.5 micrometers and smaller (PM_{2.5}),.

In addition, state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H₂S), and vinyl chloride. The National Ambient Air Quality Standards and state standards are set at a level that protects public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics within their general definition.

Federal and state air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act and the California Environmental Quality Act. In addition to this environmental analysis, a parallel “conformity” requirement under the Federal Clean Air Act also applies.

Federal Clean Air Act Section 176(c) prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs or projects that are not first found to conform to State Implementation Plan for achieving the goals of Clean Air Act requirements related to the National Ambient Air Quality Standards. “Transportation Conformity” takes place on two levels: the regional, or planning and programming, level, and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the National Ambient Air Quality Standards and only for the specific National Ambient Air Quality Standards that are or were violated. U.S. Environmental Protection Agency regulations at 40 Code of Federal Regulations 93 govern the conformity process.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the standards set for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and in some areas

sulfur dioxide (SO₂). California has attainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO₂, and also has a nonattainment area for lead (Pb). However, lead is not currently required by the Federal Clean Air Act to be covered in transportation conformity analysis. Regional conformity is based on Regional Transportation Plans and Federal Transportation Improvement Programs that include all of the transportation projects planned for a region over a period of at least 20 years for the Regional Transportation Plans and 4 years for the Federal Transportation Improvement Programs.

Regional Transportation Plans and Federal Transportation Improvement Programs conformity is based on use of travel demand and air quality models to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that requirements of the Clean Air Act and the State Implementation Plan are met. If the conformity analysis is successful, the Metropolitan Planning Organization, Federal Highway Administration, and Federal Transit Administration make determinations that the Regional Transportation Plans and Federal Transportation Improvement Programs are in conformity with the State Implementation Plan for achieving the goals of the Federal Clean Air Act. Otherwise, the projects in the Regional Transportation Plans and/or Federal Transportation Improvement Programs must be modified until conformity is attained.

If the design concept, scope, and “open to traffic” schedule of a proposed transportation project are the same as described in the Regional Transportation Plans and Federal Transportation Improvement Programs, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter (PM₁₀ or PM_{2.5}). A region is “nonattainment” if one or more of the monitoring stations in the region measures violation of the relevant standard and U.S. Environmental Protection Agency officially designates the area nonattainment. Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially redesignated to attainment by U.S. Environmental Protection Agency and are then called “maintenance” areas.

“Hot spot” analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for purposes of the National

Environmental Policy Act. Conformity does include some specific procedural and documentation standards for projects that require a hot spot analysis. In general, projects must not cause the “hot spot”-related standard to be violated, and must not cause any increase in the number and severity of violations in nonattainment areas. If a known carbon monoxide or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

An Air Quality Report was prepared on June 12, 2012. The proposed project, between the communities of Tipton and Poplar in Tulare County, is within the San Joaquin Valley Air Basin. The San Joaquin Valley, nearly 300 miles long, is bounded by the Tehachapi Mountains in the south and the San Joaquin-Sacramento River Delta in the north. The Sierra Nevada Mountain Range forms the eastern boundary, and the valley extends to the lower coastal ranges in the west. The total land area is 23,720 square miles.

The valley is characterized by hot, dry summers and cool winters. Precipitation is directly related to latitude and elevation, with the southern portion accumulating an average of less than 6 inches of rain per year. The rainy season is typically between November and April, with Tulare County’s average annual rainfall ranging from 6 inches in the south to 18 inches in the north. Snow is rare on the valley floor, though the Sierra Nevada Range generally has heavy accumulations during the winter. Warm temperatures, prevailing winds, and the location of the county within an enclosed valley all play a role in the air quality of the area.

Tulare County is in a nonattainment area for particulate matter (PM_{2.5}) and ozone and an attainment-maintenance area for PM₁₀.

Environmental Consequences

Regional Air Quality Conformity

According to (40 Code of Federal Regulations 93.127 Table 3), intersection channelization and signalization projects are exempt from regional emissions analysis requirements. The local effects of these projects with respect to carbon monoxide and particulate matter concentrations must be considered to determine if a hot-spot analysis is required prior to making a project-level conformity determination. These projects may then proceed to the project development process even in the absence of a conforming transportation plan and Federal Transportation Improvement Program.

Particulate Matter

Qualitative particulate matter hot-spot analysis is required under the Environmental Protection Agency Transportation Conformity rule for projects of air quality concern, as described in the Environmental Protection Agency's Final Rule of March 10, 2006. Project types listed in 40 Code of Federal Regulations 93.126 do not require any hot spot analysis for conformity purposes. All other projects in areas subject to conformity for particulate matter (PM₁₀ or PM_{2.5}) must have documented consideration with interagency consultation and public involvement of whether or not they are projects of air quality concern. If they are in fact projects of air quality concern, a full qualitative analysis is needed.

The project is located in a federal PM_{2.5} non attainment area and a federal attainment-maintenance PM₁₀ area and requires a full qualitative PM₁₀ and PM_{2.5} hot spot analysis under 40 Code of Federal Regulations 93.123(b)(1)(i). This project is not considered a project of air quality concern per Section ii (intersection channelization or interchange reconfiguration projects involving turn lane or other operational improvements) of the Environmental Protection Agency Transportation Conformity Guidance (Final Rule) March 10, 2006.

The preliminary results indicate the project would not result in any violation of federal standards.

Ozone

The project area is in a nonattainment area for the federal and state 8-hour ozone levels. Ozone is considered a regional pollutant. Because there are no approved guidelines for ozone, a project is considered as conforming to the State Implementation Plan for ozone when the project is listed in an approved Regional Transportation Plan and associated conformity analysis. The proposed project is listed in Tulare County's 2011 Regional Transportation Plan.

Carbon Monoxide

The project would not have an adverse effect on carbon monoxide levels. Historical air quality data shows that the existing carbon monoxide levels for the project area do not exceed either the state or federal ambient air quality standards.

Mobile Source Air Toxics

The proposed project has low potential mobile source air toxics effects. The Environmental Protection Agency projections indicate a continuing downward trend of the six primary mobile source air toxics. The study of mobile source air toxics,

dose-response effects, and modeling tools are currently in a state where accurate information is incomplete or unavailable. This is relevant to making an accurate prediction of any reasonably foreseeable adverse effects on the human environment. There is currently no specific significance level for receptor exposure. Without a significance level for exposure, one cannot accurately and scientifically predict the effects on the human environment. Studies are currently being conducted to clarify some of these unknowns; however, the information is not available now.

Avoidance, Minimization, and/or Mitigation Measures

The project would be subject to the San Joaquin Valley Air Pollution Control District Rule 9510 (Indirect Source Review Rule). This rule applies to construction equipment emissions for transportation projects that exceed 2 tons of either PM₁₀ and/or nitrogen oxide air pollutants. Mitigation options include using a construction fleet that is “cleaner than the California state average” and/or in the form of fees paid to the San Joaquin Valley Air Pollution Control District. The contractor would be responsible for the Indirect Source Review Air Impact Analysis and any applicable fees.

Short-Term Construction Impacts

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 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 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 effects 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 Valley 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 14-90.1 “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.

2.3 Biological Environment

2.3.1 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 U.S., including wetlands. Waters of the U.S. are 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 is a regulatory program that says 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 Engineers with oversight by the U.S. Environmental Protection Agency.

The U.S. Army of Engineers issues two types of 404 permits: Standard and General permits. Nationwide permits, a type of General permit, are issued to authorize 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 Engineer's Standard permits. For Standard permits, the U.S. Army 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 the U.S. Army 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 with fewer adverse effects. The Guidelines state that the U.S. Army 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 not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (Executive Oder 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 in wetlands unless the head of the agency finds 1) that there is no practicable alternative to the construction, and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, the California Department of Fish and Game, State Water Resources Control Board, and the Regional Water Quality Control Boards regulate wetlands and waters. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600–1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction. If the California Department of Fish and Game determines 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 Game jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army

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 Game.

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 Boards also issue water quality certifications for impacts to wetlands and waters in compliance with Section 401 of the Clean Water Act.

Affected Environment

A Natural Environment Study was completed for the project on June 12, 2012. The biological study area encompassed the existing Caltrans right-of-way and areas north and south of State Route 190. Aquatic features within the project area consist of an irrigation ditch, irrigation water holding basins, and a culvert.

Environmental Consequences

The project would require the headwalls of an irrigation ditch and the side slopes of two retention basins be moved beyond the 20-foot-wide clear recovery zone. Side ditches would be placed along State Route 190. Existing culverts along State Route 190 would be realigned to fit these ditches. The work required for expanding the Lower Tule River Irrigation District culvert at post mile 0.9 would require a 404 Permit from the United States Army Corps of Engineers and a 401 Permit from the Regional Water Quality Control Board.

Avoidance, Minimization, and/or Mitigation Measures

In the project design phase, Caltrans would coordinate with the United States Army Corps of Engineers to obtain a 404 Permit and the Regional Water Quality Control Board to obtain a 401 permit. Caltrans would follow all permit requirements.

2.3.2 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 2.3.3. All other special-status animal species are discussed here, including California Department of Fish and Game 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 Game 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 Game 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 Game Code
- Section 4150 and 4152 of the Fish and Game Code

Affected Environment

A Natural Environment Study was completed on June 12, 2012. The biological study area encompassed the existing Caltrans right-of-way and areas north and south of State Route 190. Using the Sacramento U.S. Fish and Wildlife Service on-line official species list and the California Department of Fish and Game Natural Diversity Database, the area was researched for potential occurrences of special-status species. The Tipton and Woodville United State Geological Survey 7.5-minute quadrangles were the two maps that contained the footprint of the project. The following quadrangles of the surrounding area were also searched for special-status species that might be affected by the project: Ducor, Sausalito School, Pixley, Alpaugh, Lindsay, Cairns Corner, Porterville, Tulare, Paige, and Taylor Weir.

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 10 miles west and southwest 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.

Environmental Consequences

The project area is within documented burrowing owl habitat; however, no direct impact to their habitat is anticipated. Temporary indirect impacts could occur during disturbance from construction activities.

Avoidance, Minimization, and/or Mitigation Measures

Although burrowing owls were not observed within the project area, Migratory Bird Special Provisions would be included in the construction contract to avoid impacting this species. These provisions would require pre-construction surveys for nesting migratory birds (including burrowing owls) so that measures can be taken to avoid impacts if a nest is discovered. If burrowing owls are located during pre-construction surveys, the California Department of Fish and Game would be consulted, and the construction schedule would be altered until appropriate buffer zones are created to ensure that this species is not disturbed.

2.3.3 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.) (see also 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 they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an Incidental Take 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.

At the state level, California enacted a similar law: the California Endangered Species Act, California Fish and Game 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 Game is the agency responsible for implementing California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species.

Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, the California Department of Fish and Game issues a take permit. 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 Game may also authorize impacts to California Endangered Species Act species by issuing a Consistency Determination (Section 2080.1 of the California Fish and Game 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 June 12, 2012. The United States Fish and Wildlife Service amended this project into the 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)*, as amended on September 22, 2009 (Service file numbers 1-1-01-F-0003 and 81420-2009-F-0974-1) on March 8, 2013 (see Appendix F). The new information contained in this section is a result of the requirements stated in the Programmatic. The biological study area encompassed the existing Caltrans right-of-way and areas north and south of State Route 190. Using the Sacramento U.S. Fish and Wildlife Service on-line official species list and the California Department of Fish and Game Natural Diversity Database, the area was researched for potential occurrences of special-status species. The Tipton and Woodville United State Geological Survey 7.5-minute quadrangles were the two maps that contained the project footprint. In a further search for special-status species that might be affected by the project, the following quadrangles of the surrounding area were examined: Ducor, Sausalito School, Pixley, Alpaugh, Lindsay, Cairns Corner, Porterville, Tulare, Paige, and Taylor Weir.

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 slender with long, pointed wings and 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 on the ground. They eat mice, gophers, ground squirrels, rabbits, large arthropods, amphibians, reptiles, and birds.

Although Swainson's hawks are known to occur 3.7 miles north of the project site, this species was not observed within the project area during surveys. A red-tailed hawk nest was observed during surveys about 700 feet from the project site. The project area contains suitable nesting habitat for the Swainson's hawk.

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 20 inches and an average weight of 5 pounds. 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.

Although no night surveys were conducted for this species, it is assumed the San Joaquin kit fox uses the area as foraging habitat as documented sightings were reported in the California Natural Diversity Database. No active dens were seen during daytime surveys. The project area contains suitable habitat for this species.

Environmental Consequences

Swainson's Hawk

The project area contains suitable nesting habitat for the Swainson's hawk, although no Swainson's hawk nests were observed during surveys. There is a possibility that a Swainson's hawk could build a nest within the project area prior to construction of the project.

San Joaquin Kit Fox

No active dens were observed during surveys for this species. However, it is assumed that the San Joaquin kit fox uses the project area as a foraging habitat. The project would affect 18.44 acres of foraging habitat.

Avoidance, Minimization, and/or Mitigation Measures

Swainson's Hawk

Although no mitigation is proposed for the Swainson's hawk, the mitigation proposed for the San Joaquin kit fox would provide suitable foraging habitat for the hawks. No impacts to the Swainson's hawk are anticipated while using the following avoidance and minimization measures:

- Pre-construction surveys would be done within the biological study area, plus a one-half-mile radius around it.

- If an active nest is detected, minimization efforts would be coordinated with the California Department of Fish and Game. These efforts could include a no-work buffer zone around the active nest and environmentally sensitive area fencing.
- If an active nest is detected, a qualified biologist would monitor the nest during construction to ensure no interference to breeding activities.

San Joaquin Kit Fox

Mitigation Measures

Although no active dens were observed during surveys for this species, the project area is within documented San Joaquin kit fox habitat. The project would affect 18.44 acres of foraging habitat. Caltrans would mitigate for this loss by purchasing 20.28 acres worth of credits from an approved United States Fish and Wildlife Service and California Department of Fish and Wildlife mitigation bank.

Avoidance and Minimization Measures

The following avoidance and minimization efforts are required:

- Prior to the initiation of groundbreaking, a Caltrans biologist would present an education and training session for all construction personnel. All individuals who would be involved in the site preparation or construction would be present, including the project representative(s) responsible for reporting take to the United State Fish and Wildlife Service and the California Department of Fish and Game. Training sessions would be repeated for all new employees before they access the construction site. Training covers the species' physical description, potential for the San Joaquin kit fox to occur on-site, effects on the species from construction activities, and penalties for not complying with the biological minimization measures.
- Prior to groundbreaking, construction and staging areas would be surveyed by a United States Fish and Wildlife Service-approved biologist. The survey limits would be fenced, flagged, or otherwise marked for high visibility. The fencing, flags, and markers would prevent encroachment by construction vehicles, equipment, and personnel. All barriers would be inspected daily.
- Preconstruction surveys for San Joaquin kit fox and their dens within the project area would be done by a United States Fish and Wildlife-approved biologist. In accordance with the United States Fish and Wildlife Service's most recent guidelines, the surveys would be done no less than 14 days but no more than 30 days prior to ground disturbance.

- If potential dens are identified within the project footprint during preconstruction surveys, Caltrans would monitor and excavate dens that the project would directly affect or cannot avoid. Active or occupied dens would not be excavated during the natal (birthing) season (January 1 to June 14).
- To avoid disturbance, injury, or transmission of disease to the San Joaquin kit fox, no firearms or pets would be allowed on-site.
- Project-related vehicles would observe a 20 mile-per-hour speed limit in the project area. Vehicle travel would be limited to established roadways; off-road traffic or other construction-related activities outside the project boundaries would be prohibited.
- At the end of each working day, the contractor would take measures to prevent the entrapment of San Joaquin kit foxes in all excavated, steep-walled holes or trenches. These measures would include covering excavations with plywood or providing dirt or plank escape ramps. The contractor would also inspect all pipes, culverts or similar structures with a diameter of four inches or greater that are stored on-site before burying, capping, or other activities. If a San Joaquin kit fox is discovered during this inspection, the pipe or culvert would not be disturbed (other than to move it to a safe location, if necessary) until after the fox has escaped.
- Because the San Joaquin kit fox is most active from dusk to dawn, the project would have no night work. All construction activities would cease 30 minutes before sunset and would not begin until 30 minutes after sunrise.
- All grindings and asphalt-concrete waste would be stored within a previously disturbed area that is no longer considered suitable habitat for the San Joaquin kit fox.
- The contractor would immediately notify the resident engineer if a dead, injured, or entrapped San Joaquin kit fox is found. All construction activity within a 150-foot radius of the kit fox would be halted and would not resume until the resident engineer provides written authorization. Any entrapped kit fox must be permitted to escape.
- No injured or dead kit fox may be handled or otherwise disturbed. In the case of an injured or dead San Joaquin kit fox, Caltrans will contact the United States Fish and Wildlife Service within one day of discovery. 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.

- If a San Joaquin kit fox den is discovered, all construction activity within a 150-foot radius of the den would be halted and the resident engineer would be immediately contacted. The United States Fish and Wildlife Service would be contacted for guidance. Construction may not continue within the 150-foot radius until the resident engineer provides written notification.
- All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed at least once every day from the entire project site.

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 gases, 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's in 1988, has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are mainly concerned with the emissions of GHGs 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 carbon dioxide (CO₂), mostly from fossil fuel combustion.

Typically two terms are used when discussing the impacts of climate change. “Greenhouse Gas Mitigation” reduces greenhouse gas emissions to reduce or “mitigate” the impacts of climate change. “Adaptation” refers to 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

Four primary strategies reduce 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. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

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 GHG 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 use 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 the 2009 model year. California agencies would be working with federal agencies to conduct joint rulemaking to reduce greenhouse gas emissions for passenger cars in model years 2017 to 2025.

Executive Order 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) 1990 levels by 2020; and 3) 80 percent below 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

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

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 implements 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): This order 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): This order 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 2020.

Senate Bill 97 (SB 97) Chapter 185, 2007: This bill requires 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 have been enacted that specifically addresses 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 the state has undertaken and continues to pursue 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 GHG. 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 GHG 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.

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, the 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.

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

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

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 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.

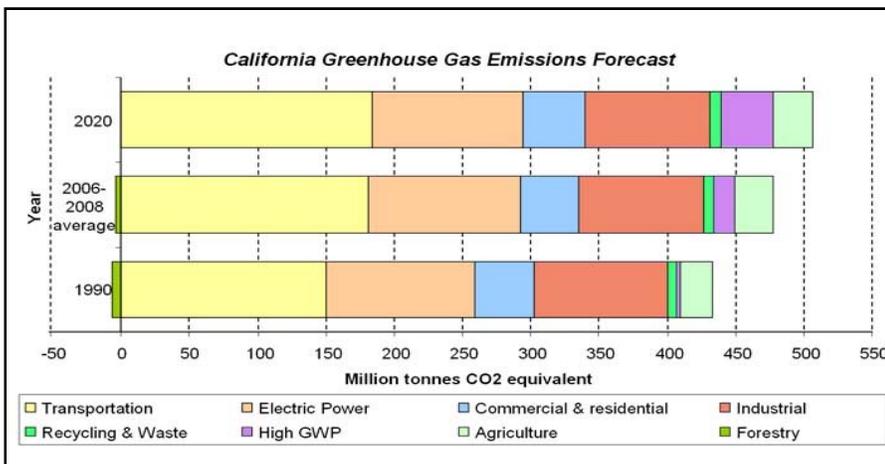


Figure 2-1 California Greenhouse Gas Inventory

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). <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

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.

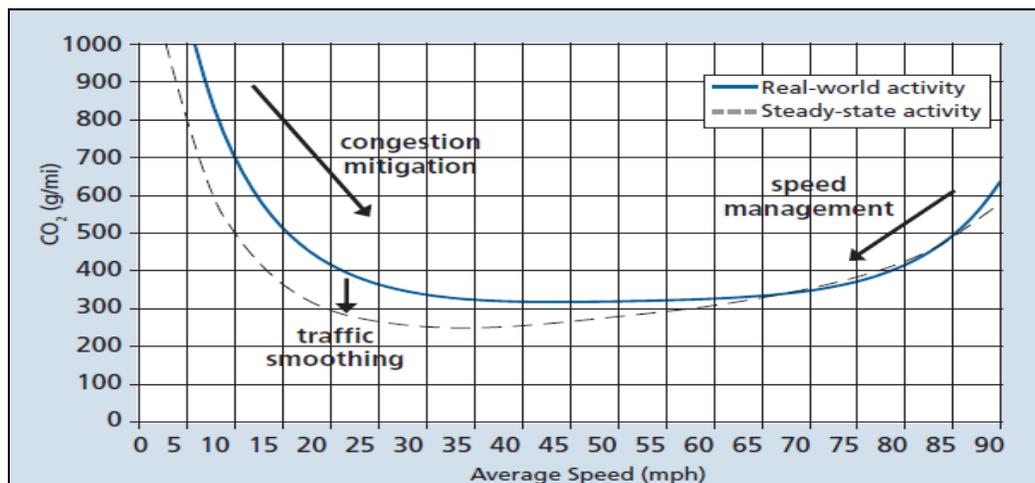


Figure 2-2 Possible Effect of Traffic Speeds in Reducing On-Road CO₂ Emissions⁶

Caltrans proposes to rehabilitate State Route 190 between the communities of Tipton and Poplar in Tulare County (post mile 0.0/8.0). The project includes pavement

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

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>>

rehabilitation, widening the existing shoulders to Caltrans current roadway standards, adding left-turn channelization to improve access to northbound State Route 99 from State Route 190, and relocating utility poles. The shoulder widening would occur mostly on the north side of State Route 190. One Build alternative and the No-Build Alternative are under consideration.

The purpose of the project is to remedy structural problems and uneven pavement by rehabilitating the roadway and widening the existing shoulders to Caltrans roadway 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.

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 14-90.1 “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 no change in greenhouse gas emissions with the Build Alternative when compared to the No-Build Alternative. 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.

Greenhouse Gas Reduction Strategies

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. Then-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. Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California at Davis.

Table 2.4 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 2.4 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 Environmental Protection; 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.

Resources were 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, even though not required to, consider these planning guidelines. This project was programmed for construction in the 2010 State Highway Operation and Protection Program.

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

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.

level 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 impacts, 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, including 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.

Public Comments on the Draft Environmental Document and Responses

A public notice announcing the availability of the draft environmental document was published in the Tulare Advance-Register on July 9, 2012. The public notice included a project location map, circulation dates, and included the opportunity for a public hearing (none was requested). The public notice was also mailed to residents, state, federal, and local officials, as well as other agencies and interested parties.

The draft environmental document was made available for comment for 30 days between July 9 and August 8, 2012. Two comment letters were received. Comment letters and responses are provided in Appendix G.

Coordination with the California Department of Fish and Game

On August 24, 2011, Caltrans biologist Frank Meraz held a field visit with California Department of Fish and Game environmental scientist Laura Peterson-Diaz to discuss permit requirements and to review potential impacts to state-listed species. It was agreed that a 1602 Permit was not necessary for impacts to the irrigation ditches in the project area. They also agreed, due to lack of habitat within the project area, no special-status species other than the San Joaquin kit fox had the potential to be affected by the project.

Coordination with the United States Fish and Wildlife Service

On September 16, 2010, Caltrans biologist Frank Meraz obtained a species list for federally threatened or endangered species that occur or may be affected by the project. An updated list was sent on November 23, 2011.

On September 26, 2012, Caltrans sent the United States Fish and Wildlife Service a request to initiate formal consultation and to append the project to the Programmatic Biological Opinion.

On October 19, 2012, the United States Fish and Wildlife Service emailed Caltrans with several project questions regarding the consultation request letter and the Natural Environment Study. Caltrans responded and answered the questions.

On March 8, 2013, the United States Fish and Wildlife Service sent Caltrans a Biological Opinion that amended the project into the 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)*, as amended on September 22, 2009 (Service file numbers 1-1-01-F-0003 and 81420-2009-F-0974-1) on March 8, 2013 (see Appendix F).

Coordination with Native American Groups

In December 2010, a Sacred Lands Inventory Search request was submitted to the Native American Heritage Commission for a search of the commission's Sacred Land files. The Native American Heritage Commission did not respond to this request.

Caltrans conducted an archeological and ethnographic inventory on several rural highways within the Central San Joaquin Valley, including the project area of State Route 190. Extensive consultation with local Mono, Yokuts, Tubatulabal, and Miwok tribes was initiated. A list of tribal contacts was provided by the Native American Heritage Commission for the inventory. At the same time, a Sacred Lands search done by the Native American Heritage Commission returned with negative results.

All cultural resources information for the State Route 190 Rehabilitation project was provided to several tribes affiliated with the project area.

Chapter 4 List of Preparers

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

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Richard Kuan, Transportation Engineer. B.S., Civil Engineering, California State University, Fresno; 20 years of design experience. Contribution: Project Engineer.

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; 8 years of environmental planning experience; 1 year of architectural history experience. Contribution: Environmental Coordinator; prepared Environmental Document.

Frank Meraz, Associate Environmental Planner, Natural Sciences. B.S., Biology, California State University, Fresno; 8 years of environmental planning experience. Contribution: Prepared Natural Environment Study.

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.

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.

Shawn Ogletree, Associate Environmental Planner. B.S., Environmental Conservation of Natural Resources, Texas Tech University; MPH, California State University, Fresno; 11 years of environmental health and environmental technical studies experience; 10 years of biology experience. Contribution: Prepared Preliminary Site Assessment.

Beatriz Ruano, Associate Environmental Planner. B.A., Psychology, California State University, San Francisco; 11 years of environmental planning experience. Contribution: Environmental Coordinator.

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

Victor Shaw, Senior Transportation Engineer. B.S., Civil Engineering, California State University, Sacramento; 22 years of engineering experience. Contribution: Project Manager.

Richard C. Stewart, Engineering Geologist. P.G., B.S., Geology, California State University, Fresno; 21 years of hazardous waste and water quality experience; 5 years of paleontology and geology experience. Contribution: Prepared Paleontological Identification Report.

Vladimir Timofei, Transportation Engineer. M.S., Civil Engineering, California State University, Fullerton; 11 years of environmental technical studies experience. Contribution: Prepared Noise and Water Quality Compliance Memos.

Philip Vallejo, Associate Environmental Planner. B.A., History, California State University, Fresno; 8 years of cultural resource compliance experience. Contribution: Prepared Historic Resource Evaluation Report.

Powell Yang, Transportation Engineer, PE, Civil. B.S., Mechanical Engineering,
California State University, Fresno; 9 years of hydraulics experience.
Contribution: Prepared Floodplain Analysis and Hydraulics Memo.

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 type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) 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 type="checkbox"/> | <input checked="" 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 |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

V. CULTURAL RESOURCES: Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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 |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

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 |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Result in inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

X. LAND USE AND PLANNING: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

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 |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

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 |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

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.


MALCOLM DOUGHERTY
Acting Director

"Caltrans improves mobility across California"

Appendix C Minimization and/or Mitigation Summary

Relocations and Read Property Acquisition

A Caltrans appraiser would determine just compensation for property along with any damages caused to the remainder such as repair to irrigation lines.

Utilities and Emergency Services

Any utility relocation outside the boundaries of the environmental study area completed for this project would require separate environmental studies. Caltrans would coordinate with Southern California Edison, Southern California Gas, AT&T, and the Lower Tule River Irrigation District to relocate utilities.

A Transportation Management Plan would be developed to minimize delays and maximize safety for motorists during construction. The Transportation Management Plan would include but is not limited to the following:

- Use press releases managed by the Caltrans public information office.
- Use fixed and portable changeable message signs.
- Use the Caltrans Highway Information Network.
- Use a Traffic Detour Plan and an emergency detour route.
- Use reversing traffic control.

Traffic and Transportation/Pedestrian and Bicycle Facilities

A Transportation Management Plan would be developed to minimize delays and maximize safety for motorists during construction. The Transportation Management Plan would include, but is not limited to:

- Use press releases managed by the Caltrans public information office.
- Use fixed and portable changeable message signs.
- Use the Caltrans Highway Information Network.
- Use a Traffic Detour Plan and an emergency detour route.
- Use reversing traffic control.

Air Quality

The project would be subject to the San Joaquin Valley Air Pollution Control District Rule 9510 (Indirect Source Review Rule). This rule applies to construction equipment emissions for transportation projects that exceed 2 tons of either PM₁₀ and/or nitrogen oxide air pollutants. Mitigation options include using a construction fleet that is “cleaner than the California state average” and/or in the form of fees paid to the San Joaquin Valley Air Pollution Control District. The contractor would be responsible for the Indirect Source Review Air Impact Analysis and any applicable fees.

Short-Term Construction Impacts

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 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 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 effects 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 Valley 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 14-90.1 “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.

Wetlands and Other Waters

In the project design phase, Caltrans would coordinate with the United States Army Corps of Engineers to obtain a 404 Permit and the Regional Water Quality Control Board to obtain a 401 permit. Caltrans would follow all permit requirements.

Animal Species

Although burrowing owls were not observed within the project area, Migratory Bird Special Provisions would be included in the construction contract to avoid impacting this species. These provisions would require pre-construction surveys for nesting migratory birds (including burrowing owls) so that measures can be taken to avoid impacts if a nest is discovered. If burrowing owls are located during pre-construction surveys, the California Department of Fish and Game would be consulted, and the construction schedule would be altered until appropriate buffer zones are created to ensure that this species is not disturbed.

Threatened and Endangered Species

Swainson’s Hawk

Although no mitigation is proposed for the Swainson’s hawk, the mitigation proposed for the San Joaquin kit fox would provide suitable foraging habitat for the hawks. No impacts to the Swainson’s hawk are anticipated while using the following avoidance and minimization measures:

- Pre-construction surveys would be done within the biological study area, plus a one-half-mile radius around it.
- If an active nest is detected, minimization efforts would be coordinated with the California Department of Fish and Game. These efforts could include a no-work buffer zone around the active nest and environmentally sensitive area fencing.
- If an active nest is detected, a qualified biologist would monitor the nest during construction to ensure no interference to breeding activities.

San Joaquin Kit Fox

Mitigation Measures

Although no active dens were observed during surveys for this species, the project area is within documented San Joaquin kit fox habitat. The project would affect 18.44 acres of foraging habitat. Caltrans would mitigate for this loss by purchasing 20.28 acres worth of credits from an approved United States Fish and Wildlife Service and California Department of Fish and Wildlife mitigation bank.

Avoidance and Minimization Measures

The following avoidance and minimization efforts are required:

- Prior to the initiation of groundbreaking, a Caltrans biologist would present an education and training session for all construction personnel. All individuals who would be involved in the site preparation or construction would be present, including the project representative(s) responsible for reporting take to the United State Fish and Wildlife Service and the California Department of Fish and Game. Training sessions would be repeated for all new employees before they access the construction site. Training covers the species' physical description, the potential for the San Joaquin kit fox to occur on-site, the effects on the species from construction activities, and the penalties for not complying with the biological minimization measures.
- Prior to groundbreaking, construction and staging areas would be surveyed by a United States Fish and Wildlife Service-approved biologist. The survey limits would be fenced, flagged, or otherwise marked for high visibility. Fencing, flagging, and markers would prevent encroachment by construction vehicles, equipment, and personnel. These barriers would be inspected daily.
- Preconstruction surveys would be done by a United States Fish and Wildlife-approved biologist for the San Joaquin kit fox and their dens within the project area. In accordance with the United States Fish and Wildlife Service's most recent guidelines, surveys would be done no less than 14 days but no more than 30 days prior to ground disturbance.
- If potential dens are identified within the project footprint during preconstruction surveys, Caltrans would request they excavate dens that that the project would directly affect or cannot avoid. Active or occupied dens would not be excavated during the natal (birthing) season (January 1-June 14).
- To avoid disturbance, injury, or transmission of disease to the San Joaquin kit fox, no firearms or pets would be allowed on-site in order.

- Project-related vehicles would observe a 20 mile-per-hour speed limit in the project area. Vehicle travel would be limited to established roadways; off-road traffic or other construction-related activities outside the project boundaries would be prohibited.
- At the end of each working day, the contractor would take measures to prevent the entrapment of San Joaquin kit foxes in all excavated, steep-walled holes or trenches. These measures would include covering excavations with plywood or providing dirt or plank escape ramps. The contractor would also inspect all pipes, culverts or similar structures with a diameter of four inches or greater that are stored on-site before burying, capping, or other activities. If a San Joaquin kit fox is discovered during this inspection, the pipe or culvert would not be disturbed (other than to move it to a safe location, if necessary) until after the fox has escaped.
- Because the San Joaquin kit fox is most active from dusk to dawn, no night work is planned for this project. All construction activities would cease 30 minutes before sunset and would not begin until 30 minutes after sunrise.
- All grindings and asphaltic concrete waste will be stored within a previously disturbed area that is no longer considered suitable habitat for the San Joaquin kit fox.
- The contractor would immediately notify the resident engineer if a dead, injured, or entrapped San Joaquin kit fox is found. All construction activity within a 150-foot radius of the kit fox would be halted and would not resume until the resident engineer provides written authorization. Any entrapped kit fox must be permitted to escape.
- No injured or dead kit fox may be handled or otherwise disturbed. In the case of an injured or dead San Joaquin kit fox, Caltrans will contact the United States Fish and Wildlife Service within one day of discovery. 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.
- If a San Joaquin kit fox den is discovered, all construction activity within a 150-foot radius of the den would be halted, and the resident engineer would be immediately contacted. The United States Fish and Wildlife Service would be contacted for guidance. Construction may not continue within the 150-foot radius until the resident engineer provides written notification.

- All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed at least once every day from the entire project site.

Appendix D Farmland Conversion Impact Rating

| U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service | | NRCS-CPA-106 (Rev. 1-91) | |
|--|---|---|--|
| FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS | | | |
| PART I (To be completed by Federal Agency) | | 3. Date of Land Evaluation Request 10/11/11 | 4. Sheet 1 of _____ |
| 1. Name of Project Laird's Corner Rehabilitation Project | | 5. Federal Agency Involved | |
| 2. Type of Project | | 6. County and State | |
| PART II (To be completed by NRCS) | | 1. Date Request Received by NRCS | 2. Person Completing Form |
| 3. Does the corridor 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 checked="" type="checkbox"/> NO <input type="checkbox"/> | 4. Acres Irrigated 550342 |
| 5. Major Crop(s) Citrus, Cotton, Alfalfa | | 6. Farmable Land in Government Jurisdiction Acres: 638789 % 20.7 | Average Farm Size 223 |
| 8. Name of Land Evaluation System Used California Storie System | | 9. Name of Local Site Assessment System None | 7. Amount of Farmland As Defined in FPPA Acres: 867965 % 28.1 |
| | | 10. Date Land Evaluation Returned by NRCS | |
| PART III (To be completed by Federal Agency) | | Alternative Corridor For Segment | |
| | | Corridor A | Corridor B |
| A. Total Acres To Be Converted Directly | | 35.0 | |
| B. Total Acres To Be Converted Indirectly, Or To Receive Services | | | |
| C. Total Acres In Corridor | | 35.0 | |
| PART IV (To be completed by NRCS) Land Evaluation Information | | | |
| A. Total Acres Prime And Unique Farmland | | | |
| B. Total Acres Statewide And Local Important Farmland | | | |
| C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted | | | |
| D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value | | 0.00004 | |
| PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative Value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points) | | 90 | |
| PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(a)) | | Maximum Points | |
| 1. Area in Nonurban Use | | 15 | 15 |
| 2. Perimeter in Nonurban Use | | 10 | 10 |
| 3. Percent Of Corridor Being Farmed | | 20 | 20 |
| 4. Protection Provided By State And Local Government | | 20 | 14 |
| 5. Size of Present Farm Unit Compared To Average | | 10 | 3 |
| 6. Creation Of Nonfarmable Farmland | | 25 | 0 |
| 7. Availability Of Farm Support Services | | 5 | 4 |
| 8. On-Farm Investments | | 20 | 20 |
| 9. Effects Of Conversion On Farm Support Services | | 25 | 0 |
| 10. Compatibility With Existing Agricultural Use | | 10 | 0 |
| TOTAL CORRIDOR ASSESSMENT POINTS | | 160 | 69 |
| PART VII (To be completed by Federal Agency) | | | |
| Relative Value Of Farmland (From Part V) | | 100 | 90 |
| Total Corridor Assessment (From Part VI above or a local site assessment) | | 160 | 69 |
| TOTAL POINTS (Total of above 2 lines) | | 260 | 176 |
| 1. Corridor Selected: | 2. Total Acres of Farmlands to be Converted by Project: | 3. Date Of Selection: | 4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/> |
| 5. Reason For Selection: | | | |

Appendix E United States Fish and Wildlife Service Species List

Sacramento Fish & Wildlife Office Species List

http://www.fws.gov/sacramento/y_old_site/es/spp_lists/auto_list.cfm

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: 111123024804

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

- Branchinecta conservatio*
Conservancy fairy shrimp (E)
- Branchinecta lynchi*
Critical habitat, vernal pool fairy shrimp (X)
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)

Mammals

- Dipodomys nitratoides nitratoides*
Tipton kangaroo rat (E)
- Vulpes macrotis mutica*
San Joaquin kit fox (E)

Plants

- Caulanthus californicus*
California jewelflower (E)
- Clarkia springvillensis*
Springville clarkia (T)
- Pseudobahia peirsonii*
San Joaquin adobe sunburst (T)

Quads Containing Listed, Proposed or Candidate Species:

- DUCOR (287A)
- SAUSALITO SCHOOL (287B)
- PIXLEY (288A)

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ALPAUGH (288B)
LINDSAY (310A)
CAIRNS CORNER (310B)
WOODVILLE (310C)
PORTERVILLE (310D)
TULARE (311A)
PAIGE (311B)
TAYLOR WEIR (311C)
TIPTON (311D)

County Lists

Tulare County

Listed Species

Invertebrates

Branchinecta lynchi
Critical habitat, vernal pool fairy shrimp (X)
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardii
Critical habitat, vernal pool tadpole shrimp (X)
vernal pool tadpole shrimp (E)

Fish

Oncorhynchus (=Salmo) aquabonita whitei
Critical habitat, little Kern golden trout (X)
Little Kern golden trout (T)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

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)
Critical habitat, California condor (X)

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Sacramento Fish & Wildlife Office Species List

http://www.fws.gov/sacramento/y_old_site/es/spp_lists/auto_list.cfm

Mammals

Dipodomys ingens
giant kangaroo rat (E)

Dipodomys nitratooides exilis
Fresno kangaroo rat (E)

Dipodomys nitratooides nitratooides
Tipton kangaroo rat (E)

Ovis canadensis californiana
Sierra Nevada (=California) bighorn sheep (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Chamaesyce hooveri
Critical habitat, Hoover's spurge (X)
Hoover's spurge (T)

Clarkia springvillensis
Springville clarkia (T)

Orcuttia inaequalis
Critical habitat, San Joaquin Valley Orcutt grass (X)

Pseudobahia peirsonii
San Joaquin adobe sunburst (T)

Sidalcea keckii
Critical habitat, Keck's checker-mallow (X)
Keck's checker-mallow (=checkerbloom) (E)

Candidate Species

Amphibians

Rana muscosa
mountain yellow-legged frog (C)

Mammals

Martes pennanti
fisher (C)

Plants

Abronia alpina
Ramshaw sand-verbena (C)

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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:
08ESMF00-2012-F-0669-1

MAR 08 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 State Route 190 Rehabilitation Project, Tulare County, California (California Department of Transportation EA 06-46150; 06-TUL-190-PM 0.0/8.0), 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 formal consultation on the State Route 190 Rehabilitation Project (project) in Tulare 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 as well as its responsibilities for environmental review, consultation, and coordination under other Federal environmental laws.

Your letter requesting formal consultation, dated September 21, 2012, was received in this office on September 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), as amended on September 22, 2009 (Service file numbers 1-1-01-F-0003 and 81420-2009-F-0974-1). At issue are the effects of this proposed project on the federally-listed as endangered San Joaquin kit fox (*Vulpes macrotis mutica*). 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).

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

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Consultation History

September 26, 2012. The Service received a letter from Caltrans requesting to initiate formal consultation and to append the project to the Programmatic. Included with the letter was a copy of the May 2012 Natural Environment Study (NES), entitled *State Route 190 Rehab.*

October 19, 2012. The Service e-mailed Caltrans with several project questions regarding the consultation request letter and the NES; Caltrans responded.

BIOLOGICAL OPINION

Project Description

Caltrans proposes to rehabilitate an 8 mile (mi) segment of State Route (SR) 190 from post-mile (PM) 0.0 to 8.0, beginning at the junction of SR 99 and SR 190 and heading east. Construction will include overlaying the existing travel way with new asphalt concrete; widening the shoulders to the current 8 foot (ft.) standard; adding a left-turn lane on westbound SR 190 to access northbound SR 99; rehabilitating the northbound on-ramp/off-ramp in addition to approximately 500 ft. of the pavement west of SR 190; and relocating utility poles outside of the clear recovery zone.

Ground disturbance for utility relocation is anticipated to occur to a depth between 5 and 10 ft. New right-of-way (ROW) will be acquired: 40 ft. on the north side and 25 ft. on the south side. Widening activities will occur mainly to the north of the existing highway in order to minimize the number of utility poles that will need to be relocated. Potential staging areas have not yet been designated.

The purpose of the project is to bring the existing infrastructure into compliance with current design standards and to remedy problems with the structural section and the ride quality of the roadway. Construction is anticipated to begin in September 2014 and take approximately two years to complete.

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 NES and request letter, in order to avoid and minimize effects to sensitive natural communities and the San Joaquin kit fox.

1. Prior to the commencement of groundbreaking, construction and staging areas will be surveyed by a Service-approved biologist(s) and the limits of these areas fenced, flagged, or otherwise marked for high visibility in order to prevent encroachment by construction vehicles, equipment, and personnel. The barriers will be inspected on a daily basis.
2. A qualified Service-approved biologist(s) will conduct an environmental education program for construction employees and contractors covering the species' physical

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description, the potential for the San Joaquin kit fox to occur on-site and the effects on the species from construction activities, and the penalties for not complying with biological minimization requirements. New construction personnel who are added to the project after the training is first conducted also will be required to take the training. Crew members will sign an attendance sheet and confirm that they understand the protection measures and construction restrictions.

3. A Service-approved biologist(s) will conduct preconstruction surveys for the San Joaquin kit fox and its dens within the project area no less than 14 days but no more than 30 days prior to ground disturbance in accordance with the Service's most recent guidelines.
4. If a San Joaquin kit fox den is discovered during construction, all work activity within a 150 ft. radius of the den will be halted and the Resident Engineer will be contacted immediately. The Service will be contacted for guidance as soon as possible. If potential dens are identified within the 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 or occupied dens will not be excavated during the natal season (approximately January 1 - June 14).
5. No firearms will be allowed on-site; nor will pets be allowed on-site in order to avoid disturbance, injury, or transmission of disease to the San Joaquin kit fox.
6. Project-related vehicles will observe a 20 mile-per-hour speed limit in the project area. Vehicle travel will be limited to established roadways; off-road traffic or other construction-related activities outside the delineated project boundaries will be prohibited.
7. At the end of each work day, the contractor will ensure that all excavated, steep-walled holes or trenches measuring deeper than two feet are either covered by plywood or similar materials, or are provided with one or more escape ramps constructed of earthen fill or wood. Before any holes or trenches are filled, they will be inspected thoroughly for trapped animals.
8. Since the San Joaquin kit fox is attracted to man-made den-like structures such as pipes and may enter them becoming trapped or injured, all construction pipes, culverts, or similar structures with a diameter of four inches or greater stored on-site will be inspected for the San Joaquin kit fox prior to the structures being buried, capped, or moved. If a San Joaquin kit fox is discovered, that section of pipe will not be moved until the Service has been consulted and the San Joaquin kit fox is allowed to leave without harassment.
9. There will be no night work; all construction activities will cease 30 minutes before sunset and will not begin until 30 minutes after sunrise since the San Joaquin kit fox is most active from this dusk to dawn period.
10. All grindings and asphaltic concrete waste will be stored within previously disturbed areas no longer considered to be suitable habitat for the San Joaquin kit fox.

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11. Caltrans proposes to compensate for 18.44 ac of lost potential foraging habitat by purchasing 20.28 ac worth of credits (using a 1.1:1 compensation ratio) at a Service-approved conservation bank that covers the project area.

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 includes an 8 mi segment of the SR 190 hardscape, several small segments of intersections along SR 190, and a segment of the SR 190/SR 99 junction northbound on-ramp and off-ramp; and portions of non-native grassland/fallow agricultural land and irrigated row crops within the existing and newly proposed right-of-way (ROW) that will be affected by construction activities and used for staging and access purposes. The action area also includes portions of land that extend approximately 200 ft. from the footprint which will experience further-reaching effects of roadway rehabilitation 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 State Route 190 Rehabilitation 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 remove 18.44 ac of habitat. Caltrans proposes to provide compensatory measures for the anticipated habitat loss, which will minimize the effect of the take on the species. 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.

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 determination for the San Joaquin kit fox: (1) the *Status of the Species*, which evaluates the range-wide condition of the San Joaquin kit fox, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the San Joaquin kit fox in the action area, the factors responsible for that condition, 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 impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the San Joaquin kit fox; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the San Joaquin kit fox.

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In accordance with policy and regulation, the jeopardy/no jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the current status of the San Joaquin kit fox, 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 species in the wild.

The following analysis places an emphasis on consideration of the range-wide survival and recovery needs of the San Joaquin kit fox, 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 determination. In short, a non-jeopardy determination is warranted if the proposed action is consistent with maintaining the role of habitat for the San Joaquin kit fox populations in the action area for the survival and recovery of the species.

Supplement to the Programmatic's Environmental Baseline

The majority of land within the project area is agricultural; these lands include areas of non-native grassland/fallow agricultural land, and irrigated row crops (e.g. alfalfa, corn, wheat, and barley) that are routinely rotated throughout the seasons. Disking occurs on the grassland/fallow lands, which limits their potential use by burrowing species. Non-native grasses and forbs are confined to narrow strips near the margins of the row crop fields. The remaining land within the project area is developed and contains several dairy farms and rural residential homes located along SR 190.

California Natural Diversity Database (CNDDDB) records were searched within the Tipton and Woodville United States Geological Survey (USGS) 7.5-minute quadrangles, in which the project action area is located. According to the CNDDDB (2012)¹, there is one observational record of the San Joaquin kit fox from 1971 that is located within the action area, and five records within the vicinity of the action area; of these, the two closest are located less than 2 mi from the project footprint and date from 1972 and 1975. For the present project, neither spotlight surveys nor tracking station surveys were conducted to determine presence of the San Joaquin kit fox. Instead, foot surveys were conducted in areas that could provide potential denning habitat. Several burrows were identified at the northbound SR 99 on-ramp. All of these burrows were actively being used by California ground squirrels (*Spermophilus beecheyi*); no San Joaquin kit fox sign was identified. The levees surrounding the irrigation holding basins along the edge of SR 190 near the junction with SR 99 also contained several burrows occupied by ground squirrels; there was no San Joaquin kit fox sign identified there either. No other potential den sites were identified within the project area. Rather, Caltrans determined that the area was more suitable as potential foraging habitat for the species.

Because the action area is within the range of the species; there are known occurrences both within, and in the vicinity of, the action area; and suitable foraging habitat is present, the Service

¹ California Natural Diversity Database. 2012. Natural Heritage Division, California Department of Fish and Wildlife. RareFind 4. Accessed November 7, 2012. Sacramento, California.

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concludes that it is reasonably likely for the San Joaquin kit fox to utilize the action area and be affected by the proposed action.

Effects of the Proposed Action

Construction work associated with widening SR 190 will result in the permanent loss of 18.44 ac of potential foraging habitat for the San Joaquin kit fox. Caltrans will compensate for this loss by purchasing credits at an appropriate and available Service-approved conservation bank. The proposed preservation of suitable San Joaquin kit fox habitat will minimize the effects of the permanent loss of suitable habitat considered in this biological opinion. The compensation measures will help protect and manage the habitat for the conservation of the species in perpetuity. The protected land purchased through credits will provide habitat commensurate with or better than habitat lost as a result of the project.

Conclusion

Conservation measures set forth for implementation prior to and during project work will serve to minimize project effects and the extent of take associated with the San Joaquin kit fox. The effects and take amount also will be minimal in regards to the wider subpopulations of San Joaquin kit foxes present within the region and county at large. After reviewing the current status of the San Joaquin kit fox, the environmental baseline, and cumulative effects as analyzed in the Programmatic, in addition to the environmental baseline supplement and project-specific effects of the proposed State Route 190 Rehabilitation Project considered herein, it is the Service's biological opinion that the project, as proposed, is not likely to jeopardize the continued existence of the San Joaquin kit fox.

INCIDENTAL TAKE STATEMENT

Section 9 of the Endangered Species Act and Federal regulations 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. The Service defines harassment as an intentional or negligent act or omission that creates the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. The Service further defines harm to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as 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

Mr. Javier Almaguer

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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 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

It is infeasible to quantify an exact number of San Joaquin kit fox 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 San Joaquin kit foxes that are 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 18.44 ac of suitable foraging habitat that will be permanently lost. 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 roadway widening and other rehabilitation activities leading to habitat loss, will become exempt from the prohibitions described under section 9 of the Act.

Effect of the Take

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

Salvage and Disposition of Individuals

In the case of a dead San Joaquin kit fox, the Service shall be notified of events within one day and the species shall be only handled by a Service-approved biologist(s). In such a case, 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). Dead specimens 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 shall 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 shall include the date, time, and location of the incident or of the finding of a dead specimen. 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.

Mr. Javier Almaguer

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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 State Route 190 Rehabilitation Project. 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 to an extent not considered in this 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 opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this biological opinion, 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.

Sincerely,



Kenneth Sanchez
Assistant Field Supervisor

cc:

Ms. 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 July 9, 2012 to August 7, 2012. A Caltrans response follows each comment.

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

August 6, 2012

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

Subject: State Route 190 Rehabilitation Project
SCH#: 2012071019

Dear G. William "Trais" Norris, III:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 3, 2012, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

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 contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

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. It also requires Caltrans follows Section 21104(c) of the California Public Resources Code.

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
ds_nahc@pacbell.net



*8/13/12
clear*

July 10, 2012

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



Re: SCH#2012071019; CEQA Notice of Completion; proposed Mitigated Negative Declaration for the "State Route 190 Rehabilitation Project;" located in the Tipton area; Tulare 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 conduct a Sacred Lands File (SLF) search within the 'area of potential effect (APE)' and Native American cultural resources were not identified in the project area specified; however, it is in close proximity to recorded cultural resources.

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.

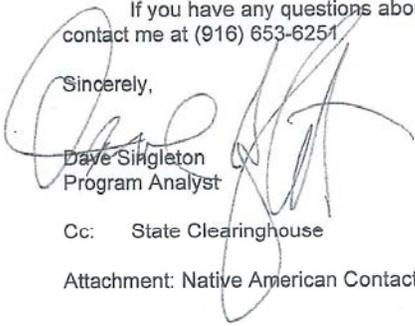
Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for inadvertent discovery of human remains mandate the processes to be followed in the event of a discovery of human remains in a project location other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

Response to Comment from the State Clearinghouse and 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 is summarized in Chapter 3, Comments and Coordination, and is documented in the Historic Property Survey Report with attached Archeological Survey Report (June 12, 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 that there would be no impact 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, if human remains are discovered during construction.

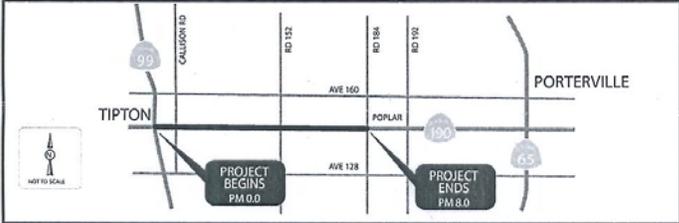
Comment from the Tulare County Clerk (returned Caltrans letter with date stamp showing receipt—no other comment)



Public Notice

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Availability of the Initial Study and Opportunity for a Public Hearing for the State Route 190 Rehabilitation Project



WHAT IS BEING PLANNED ?

The California Department of Transportation (Caltrans) proposes to rehabilitate State Route 190 between the communities of Tipton and Poplar in Tulare County (post mile 0.0/8.0). The project includes pavement rehabilitation, widening the existing shoulders to Caltrans current roadway standards, adding left-turn channelization to improve access to northbound State Route 99 from State Route 190, and relocating utility poles.

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 review, and to offer the opportunity for a public hearing.

WHAT IS AVAILABLE?

Beginning July 9, 2012 and ending August 7, 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) weekdays from 8:00 a.m. to 4:00 p.m. and the Tipton Branch Library, 221 North Evans Road, Tipton, CA 93272. 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 August 7, 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 July 9, 2012. If there are no major comments or requests for a Public Hearing, Caltrans will proceed with the project's design.

CONTACT

For more information, please contact Victor Shaw, Project Manager, at 559-243-3441 or by email at victor_shaw@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 alternate formats, etc.) are required to contact the District 6 Public Affairs office at (559) 444-4082 at least 7 days prior to the scheduled meeting date. Telecommunications Devices for the Deaf (TDD) users call 1-800-735-2929 or contact the California Relay Service TDD voice line at 1-800-735-2922.

Clerk Rec

JUL 06 2012
Received

[Handwritten signature]

Response to Comment from the Tulare County Clerk

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

Comments from the San Joaquin Valley Air Pollution Control District



August 7, 2012

G. William "Trais" Norris, III
Catrans Environmental Planning
855 "M" Street, Suite 200
Fresno, CA 93721

Project: Initial Study and Proposed Mitigated Negative Declaration for the State Route 190 Rehabilitation Project

District CEQA Reference No: 20120398

Dear Mr. Norris:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Proposed Mitigated Negative Declaration (MND) for the project referenced above. The project consists of the rehabilitation of State Route 190 between the communities of Tipton and Poplar in eastern Tulare County. The District offers the following comments:

1. The District's thresholds of significance are 10 tons/year ROG, 10 tons/year NOx, and 15 tons/year PM10. These thresholds apply to both construction and operational emission. If, after implementation of mitigation measures, annual construction emissions exceed the thresholds of significance the project would be considered to have a short-term significant impact on air quality. As the MND does not include quantification of project related construction emissions, the District cannot make a determination as to the significance of the project's short term impacts. Therefore, to ensure the MND adequately addresses potential impacts on air quality, the District recommends the preparation of an emissions analysis demonstrating that emissions would not exceed District thresholds of significance prior to project approval.
2. As stated on page 21, the proposed project is subject to District Rule 9510 (Indirect Source Review). Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building/grading permit. Based on a review of District records,

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Sayed 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 93728-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

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

www.valleyair.org www.healthyliving.com

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District CEQA Reference No. 20120398

the District has not received an AIA application for this project. Therefore, if this approval constitutes the final discretionary approval by your agency, the project may be in violation of District Rule 9510 requirements. In addition, please note that starting construction before receiving an approved AIA and paying the required Off-site Mitigation Fees, if any, is a violation of District regulations and is subject to enforcement action. Information about how to comply with District Rule 9510 can be found online at: <http://www.valleyair.org/ISR/ISRHome.htm>.

3. The proposed project may be subject to additional District rules and regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). 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 Jessica Willis at (559) 230-5818.

Sincerely,

David Warner
Director of Permit Services

Jessica R. Willis for

Arnaud Marjollet
Permit Services Manager

DW:jw

Cc: File

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

Thank you for your comments.

Response to Comment #1: A Road Emissions Model (Version 6.3.2) was prepared to determine if additional emissions analysis was required. The results below confirm that estimated construction emissions would not exceed the District's threshold of significance.

Total PM 10 Emissions: 0.4 tons/construction project

District Threshold: 15 tons/year

Total ROG Emissions: 0.9 tons/construction project

District Threshold: 10 tons/year

Total NOx Emissions: 5.5 tons/construction project

District Threshold: 10 tons/year

The results of the estimated construction emissions are lower than the District's requirements. An Emissions Analysis is not required for this project.

Response to Comment #2: Caltrans is aware of District Rule 9510 (Indirect Source Review) and concurs that this project will be subject to the rule. Caltrans will require the contractor submit all necessary documentation and associated fees to comply with Rule 9510 prior to construction. Please see Section 2.2.1, Air Quality, Avoidance, Minimization, and/or Mitigation Measures (pages 21-22) for more information on adherence to District Rule 9510.

Response to Comment #3:

- 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. Caltrans Standard Specifications (specifically, Section 14-9.03, "Dust Control" and Section 14-90.1, "Air Pollution Control") require the contractor to comply with San Joaquin Valley Air Pollution Control District rules, ordinances, and regulations.

- b) Rule 4102 (Nuisance): The project is not subject to Rule 4102 because this rule applies to sole-source emissions such as factories that emit pollutants. The Air Quality Report completed for this project did a hot-spot analysis that determined this project would not cause or contribute to any additional air pollutant violations in the direct project area.
- 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 (Caltrans Standard Specifications, Section 14-90.1, 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.

Caltrans Standard Specifications require the contractor to comply with all pertinent San Joaquin Valley Air Pollution Control District rules and requirements.

List of Technical Studies Bound Separately

- Air Quality Report
- Noise and Water Quality Compliance Memo
- Natural Environment Study
- Historic Property Survey Report
- Preliminary Site Assessment Summary
- Scenic Resource Evaluation
- Paleontological Identification Report
- Hydraulics Memo with attached Floodplain Analysis