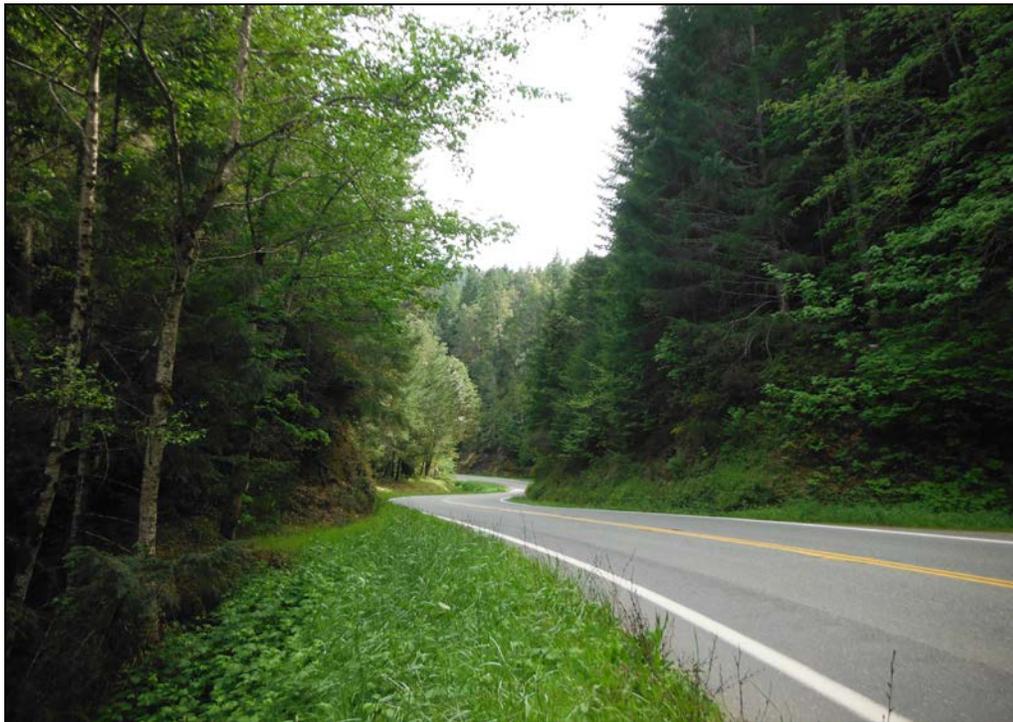


# Sugar Bowl Ranch Curve Project

STATE ROUTE 96 IN HUMBOLDT COUNTY, CALIFORNIA  
DISTRICT 1 – HUM – 96 (PM R6.20/6.60)  
EA: 0A990 / EFIS: 0112000001

## Initial Study with Mitigated Negative Declaration



Prepared by the  
State of California Department of Transportation



April 2015

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to California Department of Transportation, Attn: Dotrik Wilson, Environmental Management M2 Branch, 703 B Street, Marysville, California 95901; (530) 741-4491 Voice, or use the California Relay Service at 711.

SCH#  
01-HUM-96-PM R6.20/6.60  
EA: 0A990 / EFIS: 0112000001

Realign Curves on State Route 96 between post miles R6.20 to 6.60 in Humboldt County

**INITIAL STUDY with Proposed Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA  
Department of Transportation

11/09/2014  
Date of Approval

  
Sandra Rosas, Office Chief  
North Region Environmental Services, North (Eureka)  
California Department of Transportation

The following person may be contacted for more information about this document:

Dotrik Wilson, Environmental Management M2 Branch, California Department of Transportation, 703 B Street, Marysville, CA 95901; (530) 741-4491.

## MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

### ***Project Description***

The California Department of Transportation (Caltrans) proposes to realign curves, widen shoulders, remove and replace culverts, place centerline and shoulder rumble strips, construct a retaining wall, install guardrail, and overlay bonded wearing course on State Route 96 between post miles R6.20-6.60 in Humboldt County. Work will occur at one location within the Caltrans right of way and on adjacent privately owned property. A temporary construction easement will be required.

### ***Determination***

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

The proposed project would have no effect on agriculture and forest resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

In addition, the proposed project would have less than significant effects to aesthetics, air quality, biological resources, and hydrology and water quality. Impacts would be mitigated through implementation of avoidance and minimization measures and best management practices as well as compliance with permit requirements.



Sandra Rosas, Office Chief  
North Region Environmental Services, North (Eureka)  
California Department of Transportation

April 23, 2015

Date

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## **Section 1 – Proposed Project**

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### **Project Title**

Sugar Bowl Ranch Curve Project

### **Lead Agency & Project Sponsor's Name, Address and Contact Person**

California Department of Transportation  
Attn: Dotrik Wilson  
Environmental Management M2 Branch  
703 B Street  
Marysville, CA 95901

### **Project Location**

The proposed project is located on State Route 96 between post miles (PM) R6.20-6.60 near the community of Willow Creek in Humboldt County. The project limits will extend approximately 5.8 miles north of the community of Willow Creek to approximately 4.6 miles south of the community of Hoopa.

### **Purpose and Need**

The purpose of this project is to reduce the frequency and severity of collisions on State Route 96. This project is needed because there have been 10 recorded collisions in the most recent five-year period. This has resulted in a collision rate that is 2.5 times the statewide average for similar facilities.

### **Project Description**

The California Department of Transportation (Caltrans) proposes to realign curves, widen shoulders, remove and replace culverts, place centerline and shoulder rumble strips, construct a retaining wall, install guardrail, and overlay bonded wearing course on State Route 96 between post miles R6.20-6.60 in Humboldt County. Work will occur at one location within the Caltrans right of way and on adjacent privately owned property. A temporary construction easement will be required.

Curve realignment will occur primarily on the west side of the road. Cut-slope excavation for the realignment is expected at one location within the project limits. One retaining wall will be constructed at the end of the realignment. Approximately 200 linear feet of guardrail will be installed. Two existing culverts will be replaced. One existing culvert will be lined with a high density polyethylene slipliner. Both the eastbound and westbound shoulders will be widened to five feet.

The maximum depth of excavation will be approximately 125 feet. Approximately 40,000 cubic yards of excess material will be removed and hauled to the Hoopa Valley Aggregates Disposal

Site where it will be relinquished to the Hoopa Valley Tribe. Vegetation and tree removal will be required for the realignment as well as to facilitate access by construction equipment and personnel. One-way reversing traffic control will also be required during construction. Staging will be located on paved roadway, existing pullouts, and private property within the project limits.

#### Scope of Work

- PM R6.20-6.60: Widen shoulders to five feet, cold-plane existing asphalt concrete, place bonded wearing course overlay, restripe roadway, install asphalt concrete dikes, shoulder backing, and centerline and shoulder rumble strips.
- PM R6.30-R6.40: Realign curves.
- PM R6.36-R6.39 & PM R6.43-R6.47: Construct retaining wall, construct overside drains, construct two rock-lined ditches, place rock energy dissipater at drainage outlets.
- PM R6.40-R6.43: Install guardrail.
- PM R6.31: Replace existing 18-inch culvert with 24-inch corrugated metal pipe, construct new culvert inlet and outlet, construct downdrain, install bicycle-proof grate, place rock energy dissipater at downdrain outlet.
- PM R6.37: Line existing 48-inch culvert with high density polyethylene slipliner, replace flared end section of culvert inlet and outlet, construct rock-lined ditch.
- PM R6.46: Replace existing 24-inch culvert with 36-inch corrugated metal pipe, construct new flared end section of culvert inlet and outlet, place rock energy dissipater at culvert outlet.

Construction will have a duration of approximately two years. Construction is scheduled for 2016.

### **Surrounding Land Uses and Setting**

Land use in the vicinity of the proposed project is designated Agricultural Exclusive (AE) and Timber Production (T).

The project area is characterized by a Mediterranean climate with cool, wet winters and warm, dry summers. The elevation of the proposed project location ranges from 600 to 900 feet above mean sea level. Average annual temperatures range from 42.4 degrees Fahrenheit to 71.8 degrees Fahrenheit. Average annual precipitation is approximately 50.86 inches.

Habitat surrounding the proposed project consists of Douglas fir forest and big-leaf maple forest. The Trinity River is located within the project vicinity. Rural residential dwellings and private driveways are also located within the project vicinity.

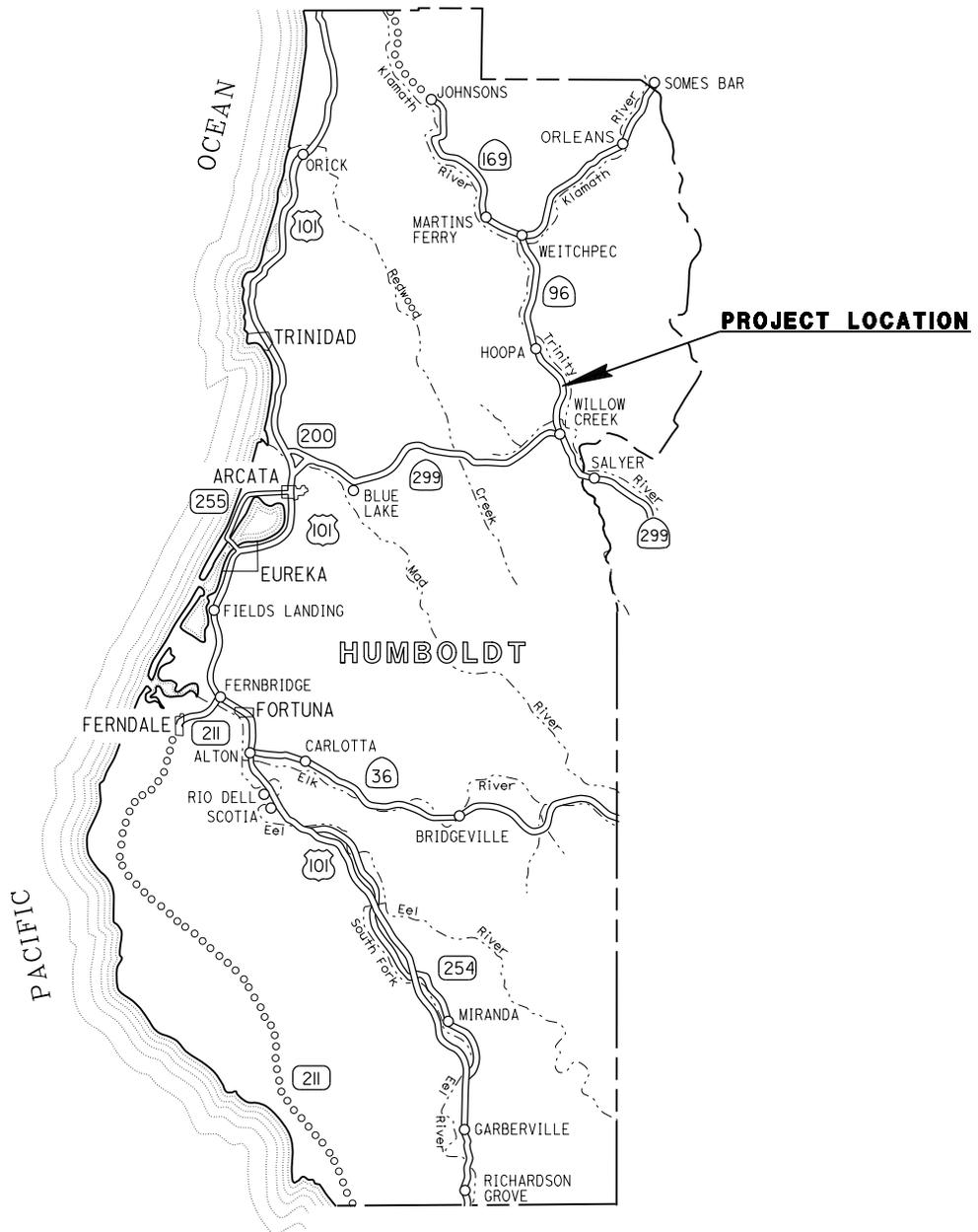
### **Zoning**

The proposed project location is zoned Agriculture Exclusive (AE) and Timberland Production (TPZ).

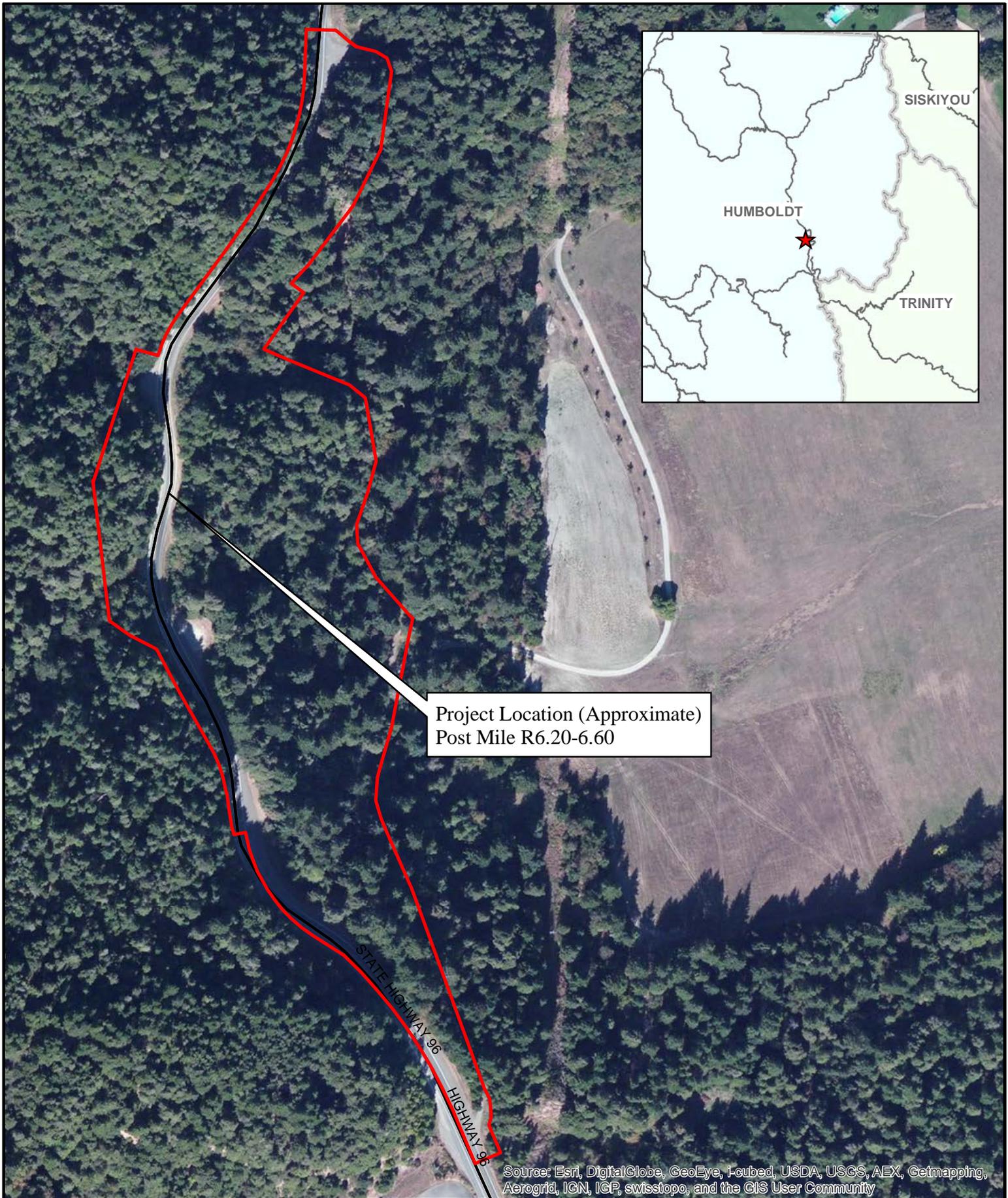
## **Permits and Approvals Needed**

The proposed project will require a Section 404 Nationwide Permit from the United States Army Corps of Engineers, a Section 401 Water Quality Certification from the North Coast Regional Water Quality Control Board, and a 1602 Lake or Streambed Alteration Agreement from the California Department of Fish and Wildlife. Section 7 Consultation with the United States Fish and Wildlife Service will be required. Coordination with the California Department of Fish and Wildlife will also be required.

No Scale



**LOCATION MAP**  
**01-HUM-96-PM R6.2/6.6**  
**01-0A990\_**  
**Sugar Bowl Curve**

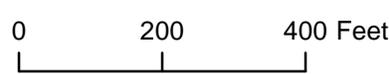


Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, ICP, swisstopo, and the GIS User Community

**Legend**

- Environmental Study Limits
- State Route 96

**Project Location and Vicinity**



## Section 2 – Environmental Factors Potentially Affected

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

<input checked="" type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input checked="" type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials	<input checked="" type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Utilities/Service Systems	<input type="checkbox"/>	Mandatory Findings of Significance

## Section 3 – CEQA Environmental Checklist

01-HUM-96

R6.20/6.60

0A990

Dist.-Co.-Rte.

P.M/P.M.

E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the project indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS:</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Explanation: "No Impact" and "Less than Significant with Mitigation" determinations in this section are based on information provided in the Visual Impact Assessment dated July 1, 2014. Refer to Section 4 for additional information.**

**II. AGRICULTURE AND FOREST RESOURCES:** Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

**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:

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>

**Explanation: "No Impact" and "Less Than Significant with Mitigation" determinations in this section are based on information provided in the Air Quality Assessment Report dated July 22, 2014. Refer to Section 4 for additional information.**

**IV. BIOLOGICAL RESOURCES:** Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<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 Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**Explanation: “No Impact”, “Less Than Significant Impact” and “Less Than Significant with Mitigation” determinations in this section are based on information provided in the Natural Environment Study dated October 21, 2014. Refer to Section 4 for additional information.**

**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"/> |
| 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"/> |

**Explanation: “No Impact” determinations in this section are based on information provided in the Historic Property Survey Report and Archaeological Survey Report dated July 31, 2014.**

**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:   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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"/> |

**Explanation: “No Impact” determinations in this section are based on the scope, description, and location of the proposed project.**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**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?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included 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 GHG 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?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Explanation: No Impact'' determinations in this section are based on information provided in the Initial Site Assessment dated June 10, 2014.**

**IX. HYDROLOGY AND WATER QUALITY:** Would the project:

- a) Violate any water quality standards or waste discharge requirements?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------	--------------------------

	Potentially Significant Impact	Less Than Significant 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Explanation: "No Impact" and "Less Than Significant with Mitigation" determinations in this section are based on information provided in the Water Quality Assessment Report dated October 8, 2014 and the Floodplain Evaluation Report Summary dated November 2, 2011. Refer to Section 4 for additional information.**

**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"/>

**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**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"/> |

**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

**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"/> |

**Explanation: "No Impact" determinations in this section are based on information provided in the Noise Assessment Report dated July 22, 2014.**

**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"/> |

**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**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"/>

**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

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

**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

**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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

**XVII. UTILITIES AND SERVICE SYSTEMS:** Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Explanation: "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.**

**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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## **Section 4 – Affected Environment, Environmental Impacts, and Avoidance, Minimization, and/or Mitigation Measures**

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### **Human Environment**

#### **VISUAL/AESTHETICS**

##### **Regulatory Setting**

The National Environmental Policy Act of 1969 as amended (NEPA) establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

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

##### **Affected Environment**

The project is located on State Route 96, which begins in Willow Creek, California and travels northeast where it connects to Interstate 5, north of Yreka, California.

The visual quality of the area along State Route 96 is high. The viewshed consists of steep slopes with mixed coniferous, deciduous, and evergreen forested lands.

State Route 96 parallels the Trinity River, a dominant feature in the landscape. The Trinity River is designated as a wild and scenic river under both the state and federal Wild and Scenic Rivers Act. The Trinity River is located approximately one-half mile from the project location.

State Route 96 is designated as a United States Forest Service Scenic Byway, specifically named the Bigfoot Scenic Byway. The majority of land adjacent to State Route 96 is located in the Six Rivers National Forest.

##### **Environmental Impacts**

Impact criteria define the level of direct and indirect impacts on visual/aesthetic resources. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on visual/aesthetic resources:

- Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction of the proposed project will moderately change the views along State Route 96. Visual impacts include a large cut slope, the removal of approximately 1.8 acres of mature vegetation, construction of a retaining wall, installation of guardrail, and roadway widening.

Impacts from the cut slope and vegetation removal will be short term based on an evaluation of existing cut and fill slopes. The majority of existing cut and fill slopes have substantial vegetation re-growth. It is anticipated that with erosion control and revegetation, the new cut slope will also experience re-growth of native vegetation. This will eliminate the visual impact over time. The impact of the retaining wall, guardrail, and roadway widening is long term. However, it is anticipated that this impact will be moderate. Mostly local residents and people who travel this section of State Route 96 often will notice these changes.

Views of the Trinity River will not be impacted. The project location is only visible from the existing roadway due to thick vegetation on both the east and west sides of State Route 96.

The United States Forest Service Scenic Byway designation will not be impacted. The Forest Service was contacted and agreed that the project was justified in this corridor.

### **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to reduce impacts to visual resources:

- Revegetation will occur after construction has been completed. Areas will be replanted with native species to blend in with the surrounding landscape.
- Cut slopes will be rounded to blend into existing slopes and to provide a natural appearing contour.
- Tree removal will be avoided to the maximum extent possible.
- Erosion control will be applied to all areas of disturbed soil. The seed mix used in erosion control will consist of species native to the region.

With the incorporation of these measures, there will be a less than significant impact to visual/aesthetic resources.

## Physical Environment

### HYDROLOGY AND WATER QUALITY

#### Regulatory Setting

##### Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source<sup>1</sup> unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow 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 the USACE’s Standard permits. There are two types of Standard permits: Individual

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<sup>1</sup> A point source is any discrete conveyance such as a pipe or a man-made ditch.

permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's Section 404 (b)(1) Guidelines (U.S. EPA Code of Federal Regulations [CFR] 40 Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, 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 which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent<sup>2</sup> standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

### **State Requirements: Porter-Cologne Water Quality Control Act**

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

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d).

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<sup>2</sup> The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### **State Water Resources Control Board and Regional Water Quality Control Boards**

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

### **National Pollutant Discharge Elimination System (NPDES) Program**

#### **Municipal Separate Storm Sewer Systems (MS4)**

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water.” The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. The Caltrans MS4 permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

Caltrans MS4 Permit (Order No. 2012-0011-DWQ) was adopted on September 19, 2012 and became effective on July 1, 2013. The permit has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns

responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

### Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

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

### Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

### **Affected Environment**

The project situated in the Trinity River Hydrologic Unit, the Lower Trinity River Hydrologic Area, and the Hoopa Hydrologic Sub-Area. A Hydrologic Unit is defined by surface drainage as well as topographic and geographic conditions. A Hydrologic Area is defined as a major subdivision of a hydrologic unit and can best be described as a major tributary or a river. A Hydrologic Sub-Area is defined as a segment of hydrologic area having significant geographical characteristics of hydrological similarity.

The project is in the Horse Linto Creek-Trinity River watershed. The major water bodies in the proximity of the project include the Klamath River, Scott River, and Trinity River. All receiving water bodies are listed as impaired pursuant to Section 303(d) of the Clean Water Act. Impaired is defined as not meeting water quality standards.

Sedimentation and siltation are the main concern for the Trinity River, the major water body closest to the project location. Sedimentation and siltation are typically associated with storm water run-off from highways.

Total maximum daily loads for sedimentation and siltation have been adopted by North Coast Regional Water Quality Control Board and approved by the United States Environmental Protection Agency for the Trinity River Hydrologic Unit. Total maximum daily load is defined as the maximum amount of pollutant a body of water can contain and still achieve water quality standards.

### **Environmental Impacts**

Impact criteria define the level of direct and indirect impacts on hydrology and water quality. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist items were used to evaluate the impacts of the proposed project on hydrology and water quality:

- Would the project violate water quality standards or waste discharge requirements?
- Would the project substantially alter the existing drainage pattern of the site of 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?
- Would the project otherwise substantially degrade water quality?

The disturbed soil area of the proposed project is estimated to be 2.5 acres. The net increase in impervious area after completion of the project is estimated to be 0.13 acres.

Potential temporary water quality impacts could occur during construction. Without implementation of best management practices, construction activities could release pollutants such as sediment, soil stabilization residues, and oil and grease. Any type of soil disturbance would expose soil to erosion from wind and water that could result in sedimentation to receiving surface waters.

### **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to prevent and/or reduce impacts to hydrology and water quality:

- The Lower Trinity River Hydrologic Area Total Maximum Daily Load for sedimentation requires sediment and erosion control best management practices to avoid further impairment. Anticipated temporary sediment and erosion control measures include fiber rolls, sandbag barriers, gravel bag berms, and rolled erosion-control products (e.g., netting).
- The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 2012-0011-DWQ), issued by the State Water Resources Control Board. Adherence to the compliance requirements of the NPDES Construction General Permit CAS # 000002, Order # 2012-0006-DWQ, for General Construction Activities is also required.
- Since the total DSA is anticipated to be greater than 1 acre, Caltrans-approved Storm Water Pollution Prevention Plan (SWPPP) will be required. The SWPPP specifies the level of temporary pollution control measures for the project. Applicable provisions of Section 13 of Caltrans 2010 Standard Specifications shall be included in the plans, specifications, and estimates to address construction's temporary water pollution control measures. These measures must address soil stabilization, re-vegetation of riparian areas around intermittent streams, sediment control, tracking control and wind erosion control practices. In addition, at a minimum, the project plans must include non-storm water controls, waste management and material pollution controls.
- Management of storm water runoff from the construction site shall be addressed during plans, specification, and estimates to control potential sources of water pollution before it encounters any storm water drainage system or watercourse. The Contractor is required to control material pollution and manage waste and non-storm water at the construction site. A Contractor-prepared Storm Water Management Plan (SWMP) shall incorporate appropriate temporary construction site best management practices to implement effective handling, storage, use and disposal practices during construction activities.
- Existing drainage facilities shall be identified and protected by the application of appropriate construction site best management practices.
- Caltrans' Storm Water Management Plan, Project Planning and Design Guide (PPDG) Section 4, and Evaluation Documentation Form (EDF) provide detailed guidance in

determining if a specific project requires the consideration of permanent treatment best management practices. Line Item best management practices may be required to be incorporated.

- The project will be regulated by NCRWQCB through Caltrans Statewide NPDES Permit (Board Order 2012-0011-DWQ). Caltrans shall implement the programs specified in its approved Storm Water Management Plan. Caltrans NPDES office will participate in early project design consultation with the Regional Board. Caltrans shall solicit Regional Water Quality Control Board staff review during the project's approval and plans, specification, and estimates milestones. Coordination with Regional Board staff shall be conducted through the District NPDES Coordinator.
- Any storm water/urban runoff collection, treatment, and/or infiltration disposal facilities shall be designed, installed, and maintained for the discharge of storm water runoff from all impervious surfaces generated by a 20-year, one-hour design storm within the appropriate watersheds. Runoff in excess of the design storm generated within the project site shall only be discharged to storm drain or stabilized drainage system capable of conveying flow from a 100-year, 24-hour storm. If site conditions do not allow for adequate onsite disposal, all site runoff must be treated to meet applicable Effluent Limits and/or Receiving Water Limitations specified in the Basin Plan. The Regional Water Quality Control Board Executive officer may approve alternative mitigation measures.
- In accordance with the Basin Plan of NCRWQCB (Implementation Plans, Section 4-10), discharges of storm water from permitted storm water conveyance systems (such as Caltrans storm water conveyance facilities) shall not be subject to the Basin Plan's point source waste discharge prohibitions if the following conditions are met:
  - The discharge and the activities which affect the discharge are managed in conformance with the provisions of the applicable NPDES permit.
  - The discharge does not cause adverse effects on the beneficial uses of the receiving water. The permittee shall implement a general management program to eliminate or minimize non-storm water discharges into surface waters. The program shall be submitted to the Regional Water Quality Control Board for approval and include implementation of best management practices, outreach and education, inspections, monitoring, reporting and enforcement provisions. The approved Caltrans Storm Water Management Plan has satisfied this condition.
  - All construction site best management practices would follow the latest edition of the Storm Water Quality Handbook: Construction Site Best Management Practices Manual (Caltrans 2003) to control and minimize the impacts of construction-related activities, materials and pollutants from non-storm water discharges into surface waters.

With the incorporation of these measures, there will be a less than significant impact to hydrology and water quality.

## AIR QUALITY

### Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM), which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM<sub>10</sub>) and particles of 2.5 micrometers and smaller (PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>). In addition, national and state standards exist for lead (Pb) and state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H<sub>2</sub>S), and vinyl chloride. The NAAQS and state standards are set at levels that protect 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 in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel “Conformity” requirement under the FCAA also applies.

### *Conformity*

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. “Transportation Conformity” applies to highway and transit projects and 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 NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and in some areas (although not in California) sulfur dioxide

(SO<sub>2</sub>). California has attainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO<sub>2</sub>, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years for the RTP) and 4 years (for the TIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the Clean Air Act and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA), make determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP 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 RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Conformity analysis at the project-level includes verification that the project is included in the regional conformity analysis and a “hot-spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>). A region is “nonattainment” if one or more of the monitoring stations in the region measures a violation of the relevant standard and the U.S. EPA 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. EPA and are then called “maintenance” areas. “Hot-spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. 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 CO 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**

The North Coast Unified Air Quality Management District is responsible for enforcing local, state, and federal air quality standards in Humboldt County. Currently, Humboldt County is in attainment for federal standards of CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and Ozone. Humboldt County is also in attainment for state standards of CO, PM<sub>2.5</sub>, and Ozone, but in nonattainment for PM<sub>10</sub>.

### **Environmental Impacts**

Impact criteria define the level of direct and indirect impacts on air quality. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist items were used to evaluate the impacts of the proposed project on air quality:

- Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Construction of the proposed project may result in generation of short-term air emissions, including fugitive dust and exhaust from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM<sub>10</sub>, would be the primary short-term construction impact which may be generated during excavation, grading, and hauling activities. However, both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature.

Naturally Occurring Asbestos (NOA) is known to exist in serpentine, a greenish greasy-looking rock. Based on the California Geologic Survey and National Resource Conservation Service soil maps, serpentine is found in some parts of Humboldt County.

#### **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to reduce impacts to air quality:

- The contractor will be required to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district through Standard Specification Section 14-9.02 "Air Pollution Control" and Standard Specification Section 14-9.03 "Dust Control".
- If NOA is found during construction, the rules and regulations of the local air quality management district will be adhered to when handling NOA material.

With the incorporation of these measures, there will be a less than significant impact to air quality.

## Biological Environment

### NATURAL COMMUNITIES

#### Regulatory Setting

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

#### Douglas Fir Forest

##### Affected Environment

Douglas fir forest, (*Pseudotsuga menziesii*) Forest Alliance, was identified as occurring within and adjacent to the project limits. Some associations of Douglas fir forest are considered a Natural Community of Special Concern. Natural Communities of Special Concern are defined as communities that are of limited distribution statewide or within a county or region.

This forest is dominated by Douglas fir. Other trees present in the canopy include big leaf maple (*Acer macrophyllum*), Pacific madrone (*Arbutus menziesii*), tan oak (*Nanolithocarpus densiflorus var. densiflorus*), California bay (*Umbellularia californica*), California black oak (*Quercus kelloggii*), and interior live oak (*Q. wislizeni*). Shrubs, ferns, and herbaceous plants in the understory include poison oak (*Toxicodendron diversilobium*), western redbud (*Cercis occidentalis*), deer brush (*Ceanothus integerrimus*), oceanspray (*Holodiscus discolor*), thimbleberry (*Rubus parviflorus*), twinberry (*Lonicera involucrata*), wood fern (*Dryopteris arguta*), modesty (*Whipplea modesta*), and trail plant (*Adenocaulon bicolor*).

#### Environmental Impacts

Impact criteria define the level of direct and indirect impacts on natural communities. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on natural communities:

- Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Approximately 1.8 acres of Douglas fir forest will be removed. Specific tree removal information such as species, diameter, and quantities will be developed in coordination with the United States Fish and Wildlife Service and the California Department of Fish and Wildlife.

## **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to reduce impacts to natural communities:

- Revegetation will occur after construction has been completed. Areas will be replanted with native species to blend in with the surrounding landscape.
- Tree removal will be avoided to the maximum extent possible.
- Erosion control will be applied to all areas of disturbed soil. The seed mix used in erosion control will consist of species native to the region.

With the incorporation of these measures, there will be a less than significant impact to natural communities.

## **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 (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, 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 CWA.

Section 404 of the CWA establishes a regulatory program that provides that 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 Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow 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 USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal

Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, 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 which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

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

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). 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 CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request.

### **Affected Environment**

A wetland delineation was conducted on June 10, 2014. No wetlands are present at the project location. One ephemeral drainage and two intermittent drainages were identified within the project limits. Ephemeral is defined as having flowing water only during, and for a short duration

after, precipitation events. Intermittent is defined as having flowing water during certain times of the year when ground water provides water for stream flow.

### Environmental Impacts

Impact criteria define the level of direct and indirect impacts on wetlands and other waters. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist items were used to evaluate the impacts of the proposed project on wetlands and other waters:

- Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?
- Would the project 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?

Construction of the proposed project would result in estimated temporary impacts of 0.002 acres and estimated permanent impacts of 0.037 acres to other waters of the United States and State. These impacts would result from the culvert replacements and addition of rock slope protection. Final impact acreage will be calculated once final plans have been developed. Coordination with the United States Army Corps of Engineers, North Coast Regional Water Quality Control Board, and California Department of Fish and Wildlife will also be required. A summary of impacts to waters of the United States and State within the project limits can be found in Table 1.

**Table 1: Impacts to Waters of the United States and State**

WATERS OF THE U.S. and STATE	Area (sq ft)	Volume (cu yd)	Area (sq ft)	Volume (cu yd)
	Temporary		Permanent	
Other Waters of the U. S. and State				
Culvert PM 6.31	100.00	0.00	240.00	8.89
Culvert PM 6.37 (IS 1)	0.00	0.00	840.00	53.33
Culvert PM 6.46 (IS 2)	0.00	0.00	540.00	53.33
<b>OTHER WATERS TOTAL</b>	<b>100.00 (0.002 acres)</b>	<b>0.00</b>	<b>1620.00 (0.037 acres)</b>	<b>115.55</b>

### Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented to reduce impacts to other waters of the United States and State:

- Disruption of drainages will be minimized and vegetation removal shall be limited to the absolute minimum amount required for construction.

- To avoid direct impacts to water quality, no work will be performed in drainages within the project area until flows are at their seasonal low-flow or have ceased, and the streambed is dry. In most years, the seasonal low-flow or dry period occurs between June 15<sup>th</sup> and October 15<sup>th</sup>. Work in drainages will also be subject to stream conditions and permit restrictions.
- Upon completion of project construction, drainages will be permanently stabilized with a hydroseed mixture of native species.
- Only native seed material shall be used. Seed, hay and straw used in erosion control applications shall be certified weed-free or weed-seed free.
- Revegetation of drainages will be conducted after construction with riparian plants or similar plantings. Appropriate ratios will be developed in discussion with the permitting agencies.

With the incorporation of these measures, there will be a less than significant impact to wetlands and other waters.

## **ANIMAL SPECIES**

### **Regulatory Setting**

Many state and federal laws regulate impacts to wildlife. The United States Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and Wildlife (CDFW) 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 federal or state Endangered Species Act.

Federal laws and regulations relevant to wildlife include the following:

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

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

### **Migratory Birds**

#### **Affected Environment**

Numerous trees and shrubs were identified within and adjacent to the project limits which have the potential to provide suitable habitat for birds protected under the Migratory Bird Treaty Act.

## **Environmental Impacts**

Impact criteria define the level of direct and indirect impacts on animal species. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on animal species:

- Would the project 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?

Approximately 1.8 acres of Douglas fir forest will be removed. Migratory birds could potentially be affected by the proposed project if they are present within the project limits during construction. Potential impacts include nest abandonment, increased stress, and mortality. However, no impact to migratory birds is anticipated with implementation of the measures listed below.

## **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to prevent impacts to animal species:

- Removal of native vegetation will be minimized by locating staging areas and access routes in previously disturbed areas.
- All trees will be removed after September 15 and before January 31.
- If feasible, removal of vegetation shall be conducted between September 1 and February 14 after fledging and before the initiation of breeding activities for nesting birds.
- If vegetation removal during the non-nesting season is determined unfeasible, then pre-construction bird nest surveys shall be performed between February 15 and August 31 to determine the location of nest sites within and adjacent to the project limits.
- If no active bird nests are found during pre-construction surveys, then vegetation must be removed within five (5) days. Pre-construction surveys will be conducted by a Caltrans Biologist or qualified biologist.
- If active bird nests are found, Caltrans shall coordinate with the United States Fish and Wildlife Service regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918, and with the California Department of Fish and Wildlife to comply with provisions of the Fish and Game Code of California.
- If a lapse in project-related work of fifteen (15) days or longer occurs, another survey and, if required, coordination with United States Fish and Wildlife Service and the California Department of Fish and Wildlife will occur before work can be reinitiated.

With the incorporation of these measures, there will be a less than significant impact to animal species.

## THREATENED AND ENDANGERED SPECIES

### Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later 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 (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA 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 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

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

## **Northern Spotted Owl Affected Environment**

Potentially suitable nesting and roosting habitat for the northern spotted owl (*Strix occidentalis caurina*) was identified as occurring within and adjacent to the project limits.

The northern spotted owl inhabits forests containing mature, old growth trees. Northern spotted owls prefer areas with a multi-layered, multi-species tree canopy and deformities such as cavities, broken tops, mistletoe infections, and debris. The nesting season for the northern spotted owl is February 1 to September 15.

The northern spotted owl is listed as a threatened species by the United States Fish and Wildlife Service and as a candidate species by the California Department of Fish and Wildlife. A threatened species is defined as a species that is likely to become endangered in the foreseeable future. A candidate species is defined as a species that is under review for listing as threatened or endangered.

Designated critical habitat for the northern spotted owl is located approximately 0.54 miles west of the project limits. The closest documented northern spotted owl observation is located approximately 0.24 straight-line miles northeast of the project limits. The closest documented northern spotted owl activity center is located approximately 0.34 straight-line miles west of the project limits.

## **Environmental Impacts**

Impact criteria define the level of direct and indirect impacts on the northern spotted owl. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on the northern spotted owl:

- Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Approximately 1.8 acres of Douglas fir forest will be removed outside of the northern spotted owl nesting season. There will be no impact to northern spotted owl critical habitat.

The northern spotted owl has the potential to be harassed during construction of the proposed project. Construction activities could generate elevated noise levels that may influence northern spotted nesting and foraging owl behavior in the project vicinity.

The northern spotted owl is one of six species covered under the *Programmatic Informal Consultation for the California Department of Transportation's Routine Maintenance and Repair Activities, and Small Projects Program for District 1 and 2* issued April 9, 2014 by the United

States Fish and Wildlife Service. This Programmatic Agreement allows Caltrans to undertake actions that may affect, but are not likely to adversely affect the northern spotted owl. Under the Programmatic Agreement, the potential disturbance has been determined to be insignificant or discountable based on northern spotted owl mobility and the large amount of similar foraging habitat available in the region.

With implementation of a work window as well as noise restrictions, the proposed project may affect, but is not likely to adversely affect the northern spotted owl.

Coordination with the California Department of Fish and Wildlife is currently underway.

### **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to reduce impacts to the northern spotted owl:

- All trees will be removed after September 15 and before January 31.
- Suitable habitat may be removed or altered outside the nesting season provided “no take” guidelines are adhered to for all known spotted owl home ranges within 0.7 mile of the action area in coastal (redwood) forests or within 1.3 miles of the action area in interior forests.
- Caltrans must ensure that there are no “adverse effects” to designated northern spotted owl critical habitat within the action area. However, because the United States Fish and Wildlife Service has no specific quantitative thresholds, above which there would likely be an adverse effect to critical habitat, Caltrans must contact the United States Fish and Wildlife Service to determine whether the proposed habitat removal within designated critical habitat would constitute an adverse effect.
- No proposed activity generating sound levels 20 or more decibels above ambient sound levels or with maximum sound levels (ambient sound levels plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms) may occur within 0.25 mile (1320 feet) of suitable spotted owl nesting/roosting habitat during the majority of the nesting season (*i.e.*, February 1 to July 9). These above-ambient sound level restrictions will be lifted after July 31; after which the United States Fish and Wildlife Service considers the above-ambient sound levels as having “no effect” on nesting spotted owls and dependent young.
- No human activities shall occur within a visual line-of-sight of 131 feet or less from any known nest locations within the action area.

With the incorporation of these measures, there will be a less than significant impact to the northern spotted owl.

### **Fisher, West Coast Distinct Population Segment**

#### **Affected Environment**

Potentially suitable denning and resting habitat for the fisher (*Martes pennanti*) was identified as occurring within and adjacent to the project limits.

The fisher inhabits mature forests with dense canopy closure, typically coniferous and deciduous-riparian habitats. Fishers rest and den in protected cavities in large trees, logs, rock areas, and brush piles. The critical period for the fisher is March 1 to July 31.

The fisher is listed as a candidate species by both the United States Fish and Wildlife Service and the California Department of Fish and Wildlife.

### **Environmental Impacts**

Impact criteria define the level of direct and indirect impacts on the fisher. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on the fisher:

- Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Approximately 1.8 acres of Douglas fir forest will be removed outside of the critical period for the fisher. Construction activities could generate elevated noise levels that may influence fisher denning and resting behavior in the project vicinity.

No direct take of fisher is anticipated. The proposed project will have minimal effects on the fisher. Coordination with the United States Fish and Wildlife Service will be required. Coordination with the California Department of Fish and Wildlife is currently underway.

### **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to reduce impacts to the fisher:

- All trees will be removed after September 15 and before January 31.
- Potential denning trees will not be cut until the day after all other (unsuitable) trees within the project area have been removed. If a female fisher has young in a maternal den tree within the area, this will allow her additional time to move her young from the area.
- A biological monitor will be on-site to monitor for the presence of fishers during the removal of trees.
- If a fisher is detected, tree removal will halt until the fisher has left the project area.

With the incorporation of these measures, there will be a less than significant impact to the fisher.

## **Townsend's Big-Eared Bat Affected Environment**

Potentially suitable roosting habitat for the Townsend's big-eared bat was identified as occurring within and adjacent to the project limits.

The Townsend's big-eared bat inhabits caves, mines, buildings or other cave-like structures. Large diameter trees with basal hollows provide suitable habitat for roosting. The maternity period for Townsend's big-eared bat is February 1 to August 31.

The Townsend's big-eared bat has no federal listing; however, it is listed as a candidate species by the California Department of Fish and Wildlife.

## **Environmental Impacts**

Impact criteria define the level of direct and indirect impacts on the Townsend's big-eared bat. The purpose of the impact criteria is to help determine when an impact is significant under CEQA.

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on the Townsend's big-eared bat:

- Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Approximately 1.8 acres of Douglas fir forest will be removed outside of the maternity period for the Townsend's big-eared bat. No direct take of Townsend's big-eared bat is anticipated. The proposed project will have minimal effects on the Townsend's big-eared bat. Coordination with the California Department of Fish and Wildlife is currently underway.

## **Avoidance, Minimization, and/or Mitigation Measures**

The following measures will be implemented to reduce impacts to the Townsend's big-eared bat:

- All trees will be removed after September 15 and before January 31.
- A biological monitor will be on-site to monitor for the presence of bats during the removal of trees.
- If a bat is detected in a tree, removal of that tree will be halted until the bat has left the project area.

With the incorporation of these measures, there will be a less than significant impact to the Townsend's big-eared bat.

# Greenhouse Gas Emissions

## CLIMATE CHANGE

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG 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 GHG-emitting sources. The dominant GHG emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower GHG 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 GHG emissions from transportation sources.

## Regulatory Setting

### *State Requirements*

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and pro-active approach to dealing with GHG emissions and climate change. Relevant legislation includes the following policies:

- Assembly Bill 1493 (AB 1493), Pavley.
- Executive Order (EO) S-3-05 (signed on June 1, 2005, by former Governor Arnold Schwarzenegger).
- Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, Núñez and Pavley.
- Executive Order (EO) S-20-06 (signed on October 18, 2006, by former Governor Arnold Schwarzenegger).
- Executive Order (EO) S-01-07 (signed on January 18, 2007 by former Governor Arnold Schwarzenegger).
- Senate Bill 97 (SB 97) Chapter 185, 2007.
- Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Caltrans policy that will ensure coordinated efforts to incorporate

climate change into Departmental decisions and activities. This policy contributes to Caltrans stewardship goal to preserve and enhance California's resources and assets.

### *Federal Requirements*

Although climate change and GHG reduction are a concern at the federal level, currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA'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. Despite the lack of Federal GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

### **Project Analysis**

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its incremental change in emissions when combined with the contributions of all other sources of GHG.<sup>3</sup>

Caltrans and its parent agency, the California State Transportation Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.<sup>4</sup>

The operation of this project would result in low-to-no potential for an increase in GHG emissions. This project is a curve correction project. The roadway will be realigned to reduce the frequency and severity of collisions. The project is not anticipated to increase capacity or change long-term traffic. Therefore, an increase in operational GHG emissions is not expected.

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<sup>3</sup> 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 South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the U.S. Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

<sup>4</sup> 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](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)

Temporary construction emissions of GHG will be unavoidable. However, these GHG emissions have the potential to be offset over time through improved operation of the roadway.

### **Construction Emissions**

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. These emissions will 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 traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

### **CEQA Conclusion**

Although construction emissions are unavoidable and are expected to be minimal, the proposed project will not increase capacity and is not expected to result in additional operational CO<sub>2</sub> emissions. It is Caltrans' determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

### **Climate Change Strategies**

There are typically two terms used when discussing the impacts of climate change.

"Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>5</sup>.

### **Greenhouse Gas Reduction Measures**

#### *AB 32 Compliance*

Caltrans continues to be actively involved on the Governor's Climate Action Team as the California Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

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<sup>5</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

1. According to Caltrans Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's (APCD) rules, ordinances, and regulations regarding to air quality restrictions.
2. Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction", Section 14-9.03 "Dust Control", and Section 14-9.02 "Air Pollution Control".

### **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, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will 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.

Interim guidance was released by The Coastal Ocean Climate Action Team (CO-CAT) 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 EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

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

## **Section 5 – List of Preparers**

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The following Caltrans staff contributed to the preparation of this Initial Study:

Mariam Dahdul, Associate Environmental Planner (Archaeology). Contribution: Historic Property Survey Report and Archaeological Survey Report, July 31, 2014.

Allison Kunz, Associate Environmental Planner (Natural Sciences). Contribution: Natural Environment Study, October 21, 2014.

Jason Lee, Water Quality Specialist. Contribution: Water Quality Assessment Report, October 8, 2014.

Kemset Moore, Hydraulic Engineer. Contribution: Floodplain Evaluation Report Summary, November 2, 2011.

Logan Moore, Landscape Architect. Contribution: Visual Impact Assessment, July 1, 2014.

Richard Mullen, Project Manager. Contribution: Project Coordination.

Adele Pommerenck, Senior Environmental Planner. Contribution: Environmental Branch Chief.

Sandra Rosas, Supervising Environmental Planner. Contribution: Environmental Office Chief.

Sean Shepard, Project Engineer Contribution: Project Design.

Sharon Tang, Air and Noise Specialist. Contribution: Air and Noise Assessment Report, July 22, 2014.

Steve Werner, Hazardous Waste Specialist. Contribution: Initial Site Assessment, June 10, 2014.

Dotrik Wilson, Associate Environmental Planner (Coordinator). Contribution: Initial Study.

## **Section 6 – Comments**

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The Initial Study with Proposed Mitigated Negative Declaration was made available for public review and comment from February 12, 2015 to March 12, 2015. Copies of the document were available for review at the Caltrans District 1 Office at 1656 Union Street in Eureka, at the Willow Creek Public Library at the intersection of State Route 299 and 96 in Willow Creek, and at the Kim Yerton Memorial Library at 370 Loop Road in Hoopa. The document was also made available online at: <http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm>

No comments were received regarding the proposed project.