

# Smith River Curve Improvement Project

DEL NORTE COUNTY, CALIFORNIA  
DISTRICT 1 - DN - HIGHWAY 199 (PM 8.0/8.5)  
01-0B260/0112000150

## Initial Study with Proposed Negative Declaration

Prepared by the  
State of California Department of Transportation



December 2014

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: Wesley Stroud, North Region Office of Environmental Management, 1031 Butte Street, MS-30, Redding, CA 96001, or (530) 225-2928, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

## General Information about This Document

### ***What's in this document?***

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts being considered for the proposed project located in Del Norte County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document describes why the project is being proposed, how the existing environment could be affected by the project, the potential impacts from the project, and proposed avoidance measures and best management practices.

### ***What should you do?***

Please read this Initial Study with Proposed Negative Declaration.

Copies of this document are available for review at locations listed below. Individual technical studies can be requested by contacting Senior Environmental Planner Wesley Stroud at (530) 225-2928, or by email at [Wesley.Stroud@dot.ca.gov](mailto:Wesley.Stroud@dot.ca.gov).

- Del Norte County Library 190 Price Mall, Crescent City, CA
- Caltrans District 1 Office, 1656 Union Street, Eureka, CA
- Caltrans North Region Office, 1031 Butte Street, Redding CA
- This document may be downloaded at the following website:  
<http://www.dot.ca.gov/dist1/d1projects/envdocs.htm>

If you have any comments about the proposed project, please send your written comments to Caltrans by the document review deadline: February 12, 2015.

Submit comments via postal mail to:

Wesley Stroud, North Region Office of Environmental Management  
California Department of Transportation  
1031 Butte Street MS-30  
Redding, CA 96001

Submit comments via email to: [Wesley.Stroud@dot.ca.gov](mailto:Wesley.Stroud@dot.ca.gov)

### ***What happens next?***

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

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STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

SCH No. *Pending*  
01-DN-PM 8.0/8.5  
01-0B260/0112000150

In Del Norte County Approximately 0.8 miles North of South Fork Road to 0.2 miles  
South of Signal Peak Sidehill Viaduct

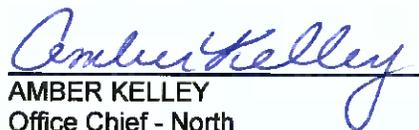
**INITIAL STUDY WITH *PROPOSED* NEGATIVE DECLARATION**

Submitted Pursuant to: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA  
Department of Transportation

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12-31-2014  
Date of Approval

  
AMBER KELLEY  
Office Chief - North  
North Region Environmental Services  
California Department of Transportation

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## **PROPOSED NEGATIVE DECLARATION**

Pursuant to: Division 13, California Public Resources Code

### ***Project Description***

The California Department of Transportation (Caltrans) in proposing a collision severity reduction project on U.S. Highway 199 (Route 199) between post miles (PM) 8.0 to 8.5 in western Del Norte County, approximately 8 miles northeast of Crescent City. The existing roadway consists of a conventional highway with two 11-foot lanes and 0 to 2-foot shoulders. The proposed project would widen the roadway between PM 8.2 and 8.3 to create a facility with two 12-foot lanes and 8-foot shoulders by realigning the roadway, and constructing a side-hill viaduct to support the widening. The project would require traffic control, vegetation removal, earthwork, drainage improvement, installation of a bridge rail with bicycle railing, installation of guardrail, and would remove portions of existing pullouts within the project limits. No right of way acquisition would be required. Staging areas are available in a pullout at PM 7.9 and within the project limits. The project would require permits from the U.S. Army Corps of Engineers (404), California Department of Fish and Wildlife (1600), and the North Coast Regional Water Quality Control Board (401). The purpose of the project is to reduce the frequency and severity of collisions on U.S. Route 199 within the project limits.

### ***Determination***

This Proposed Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Negative Declaration for the proposed project. This does not mean that the Caltrans decision on the proposed project is final. This Negative Declaration is subject to change based on comments received by interested agencies and the public.

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

- The proposed project would have no impact on agriculture and forest resources, air quality, cultural resources, land use and planning, mineral resources, paleontology, population and housing, public services, recreation, transportation/traffic, utilities and service systems, and mandatory findings of significance.
- The proposed project would have less-than-significant impacts on aesthetics, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and noise. The impacts would be offset through

implementation of avoidance measures and best management practices as well as compliance with permit requirements.

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Amber Kelley  
Office Chief – North  
North Region Environmental Services  
California Department of Transportation

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Date

DRAFT

# Section 1. Proposed Project

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## **Project Title**

Smith River Curve Improvement Project

## **Lead Agency Name, Address and Contact Person**

California Department of Transportation  
North Region Office of Environmental Management  
1031 Butte Street MS-30  
Redding, CA 96001  
Wesley Stroud, Senior Environmental Planner

## **Project Location**

The project site is located on U.S. Route 199 (Route 199) at post mile (PM) 8.0/8.5, approximately 8 miles northeast of Crescent City, California in Del Norte County (see Figure 1).

## **Purpose and Need**

The purpose of the proposed project is to reduce the frequency and severity of collisions within the project limits by providing an improved recovery area, an increased curve radius, improved super elevation, rumble strips, and high friction surface treatment.

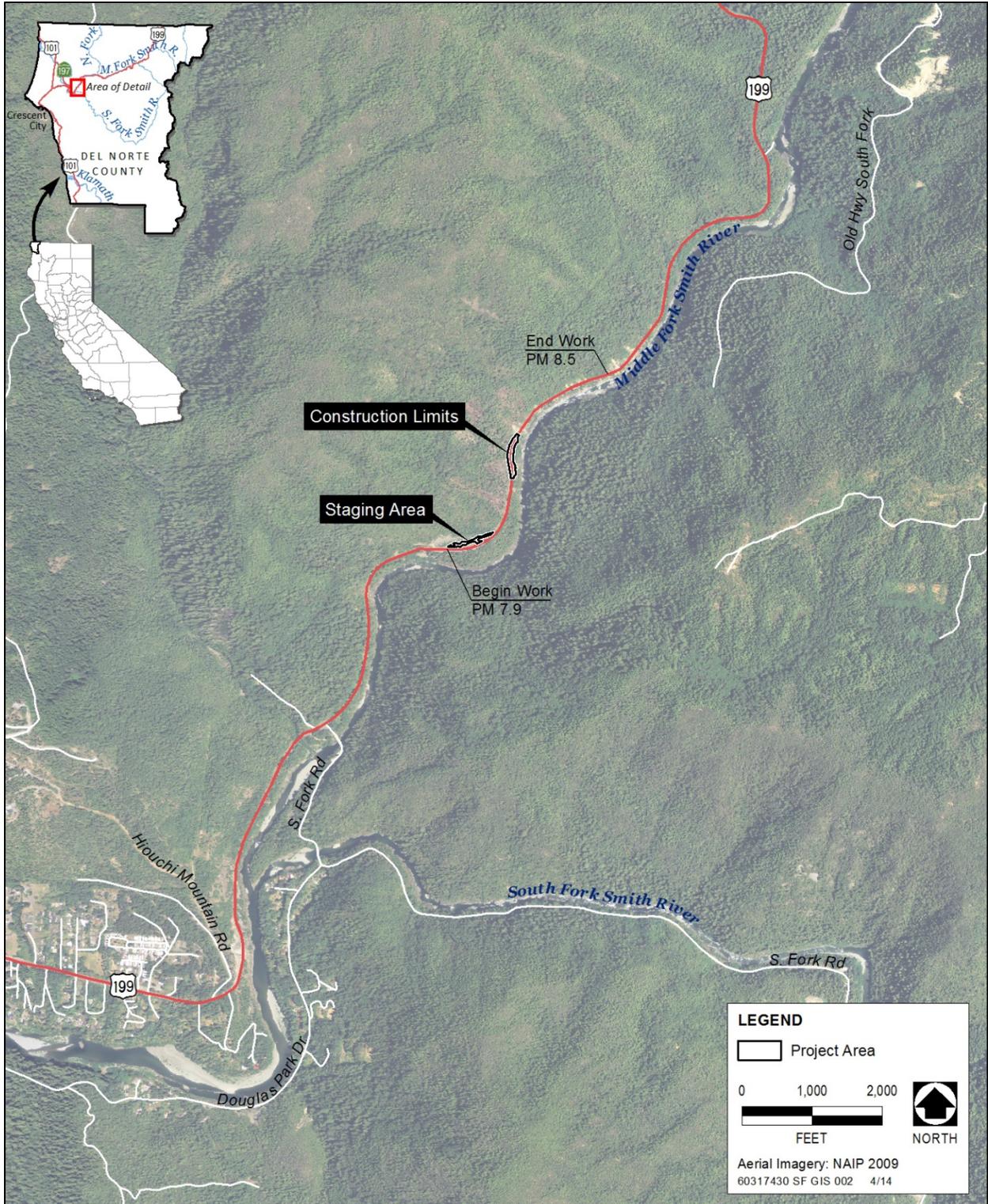
The proposed project is needed because 26 recorded collisions have occurred in a 3-year period within the project limits, the majority of which involved single-vehicle run-off-road collisions. The total collision rate at the project site is 5.4 times the statewide average for similar facilities.

## **Programmed Project Limits**

The programmed project is located on U.S. Route 199 (Route 199) from post mile (PM) 8.0 to 8.5, approximately 8 miles northeast of Crescent City, California in Del Norte County (see Figure 1). While the project limits established early in the project development process were from PM 8.0 to 8.5, the safety improvements focus on improving the nonstandard curve at PM 8.2 to 8.3. Improving the highway geometry on this segment of Route 199 is expected to reduce the identified collision concentration. All changes to the roadway would occur between PM 8.2 and 8.3, and only temporary activities such as staging in pullouts or establishing a queue for traffic control would occur outside of these limits. When a highway project length is as short as one tenth of a post mile, such as 8.2 to 8.3, the project location can be described as a spot location improvement. While some of the project documentation may describe the project limits as a spot location or list the limits as PM 8.2 to 8.3, the environmental studies for the project covered the entire programmed project limits of PM 8.0 to 8.5.

## **Existing Facility**

The section of Route 199 within the project limits is a two-lane conventional highway located in rural, mountainous terrain. The general highway characteristics within the project limits include 11-foot lane widths, and shoulders from 0 to 2 feet wide. This segment of Route 199 has steep terrain on both sides of the roadway. The highway runs essentially north and south in the project area. To the west of the roadway, a narrow ditch abuts the steep and rocky cut slope. Approaching from the south, the first feature in the project area is an approximately 300-foot-long paved pullout on the right (to the east), with a row of large boulders between the pullout and the steep Smith River Canyon. For approximately 200 feet after the pullout, the roadway has a paved 2-foot-wide shoulder with a metal beam guardrail installed next to the steep drop-off to the Smith River Canyon. After the guardrail section, another pullout (about 100 feet long) is separated from the abrupt drop-off into the Smith River Canyon by a 3-foot-high concrete wall. The existing recovery area is limited because of the narrow shoulders, the metal beam guard rail directly adjacent to the roadway, and the steep slopes on both sides of the alignment. The adjacent highway segments have similar horizontal curvature, and lane and shoulder width.



Source: Caltrans 2014 and NAIP 2009; compiled by AECOM in 2014

**Figure 1. Project Location**

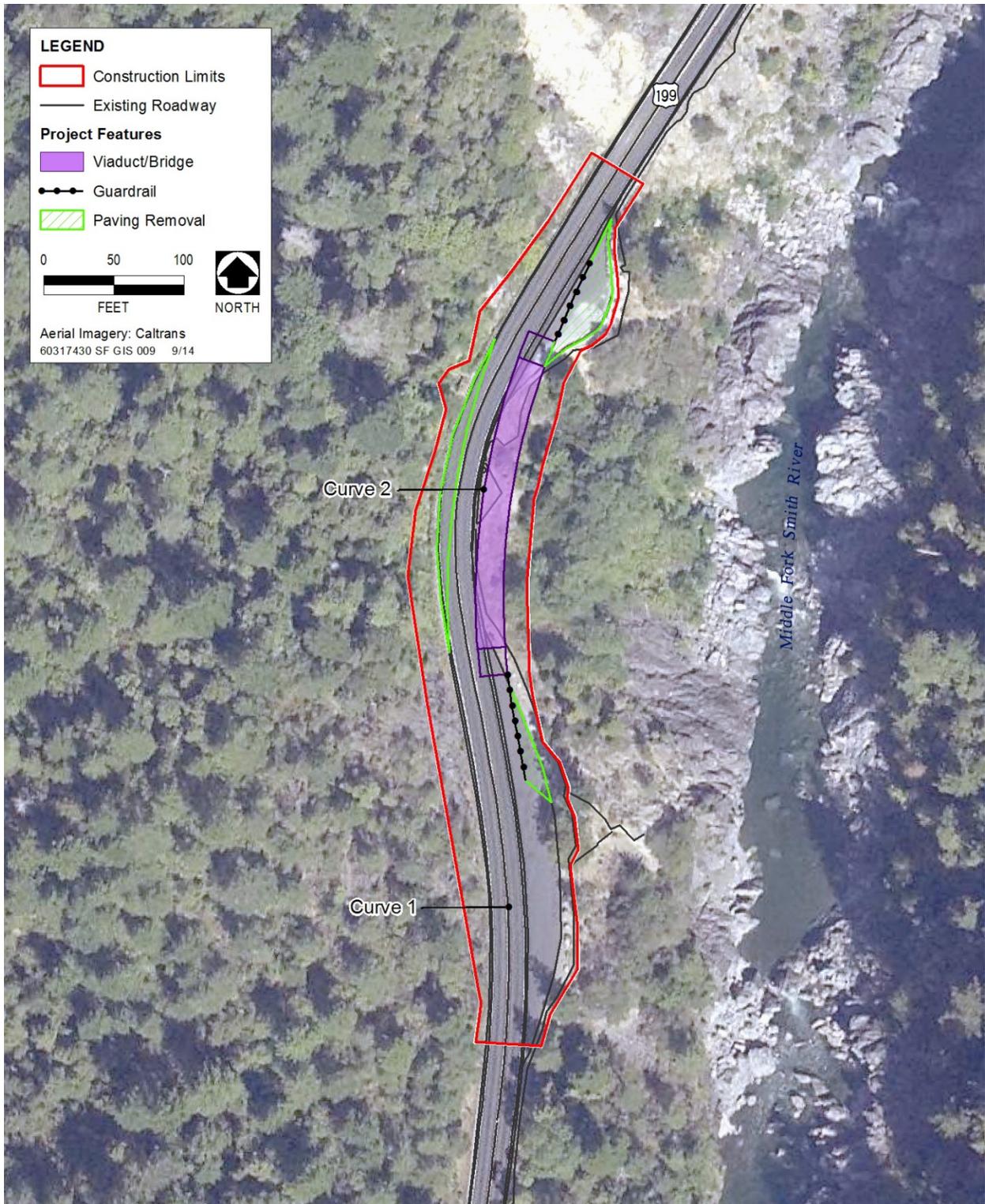
## Project Description (Build Alternative)

The proposed project would widen a portion of the roadway to improve safety at a nonstandard curve location from post mile 8.2 to 8.3. The improved location would have two 12-foot lanes and 8-foot shoulders established by realigning the roadway, and constructing a side-hill viaduct to support the widening. A viaduct is a structure, which can also be referred to as a bridge, for carrying a roadway over a valley or extending the roadway width over steep terrain. The widening would occur primarily on the northbound side of the roadway to reduce the extent of cutting the steep slope adjacent to the existing roadway. The existing alignment within the project limits consists of two curves with a short tangent between them. The proposed project would increase the radius of the second curve. To accommodate the widening, the existing curve would be realigned by constructing a side-hill viaduct approximately 22 feet wide and approximately 220 feet long. The viaduct foundation would be constructed of CIDH piles that would be installed into rock at each bent and abutment. A total of 16 piles would be installed. Abutments are the concrete supports that transition the open spans of a bridge to the ground-level roadway and extend into the ground at each end of a bridge or viaduct. The viaduct would be a cast-in-place (CIP) reinforced concrete (RC) slab type. No portion of the proposed structure would be located in or would extend over the river. After construction, portions of the existing paved pullouts would be behind guardrail extending from the viaduct structure and no longer available for their existing use. Pavement in those areas would be removed, including an area in the current paved pullout north of the proposed structure. At this location, pavement will be removed, soil placed and the area would be planted. These areas, as well as all other areas of disturbed soil, would be graded to blend into the existing topography and would be stabilized in accordance with planting and erosion control plans prepared by the Caltrans District landscape architect.

Please refer to Figure 2 for a plan view of the proposed project.

**Roadway/Viaduct Work:** A construction contract would not specify exactly how the project would be constructed; however, the project development team has compiled a likely construction scenario as follows: Vegetation would be removed. Construction work would begin with minor excavation along the west shoulder of the roadway and placement of temporary paving to provide sufficient roadway width for traffic. A temporary traffic signal would be installed. Temporary Railing (type K) would be placed along the centerline, and the roadway would be temporarily restriped for one-way reversible traffic to construct the viaduct. The CIDH support piles nearest the centerline would be constructed first, by drilling holes approximately 2 feet in diameter, then placing reinforcing steel and pouring the concrete.

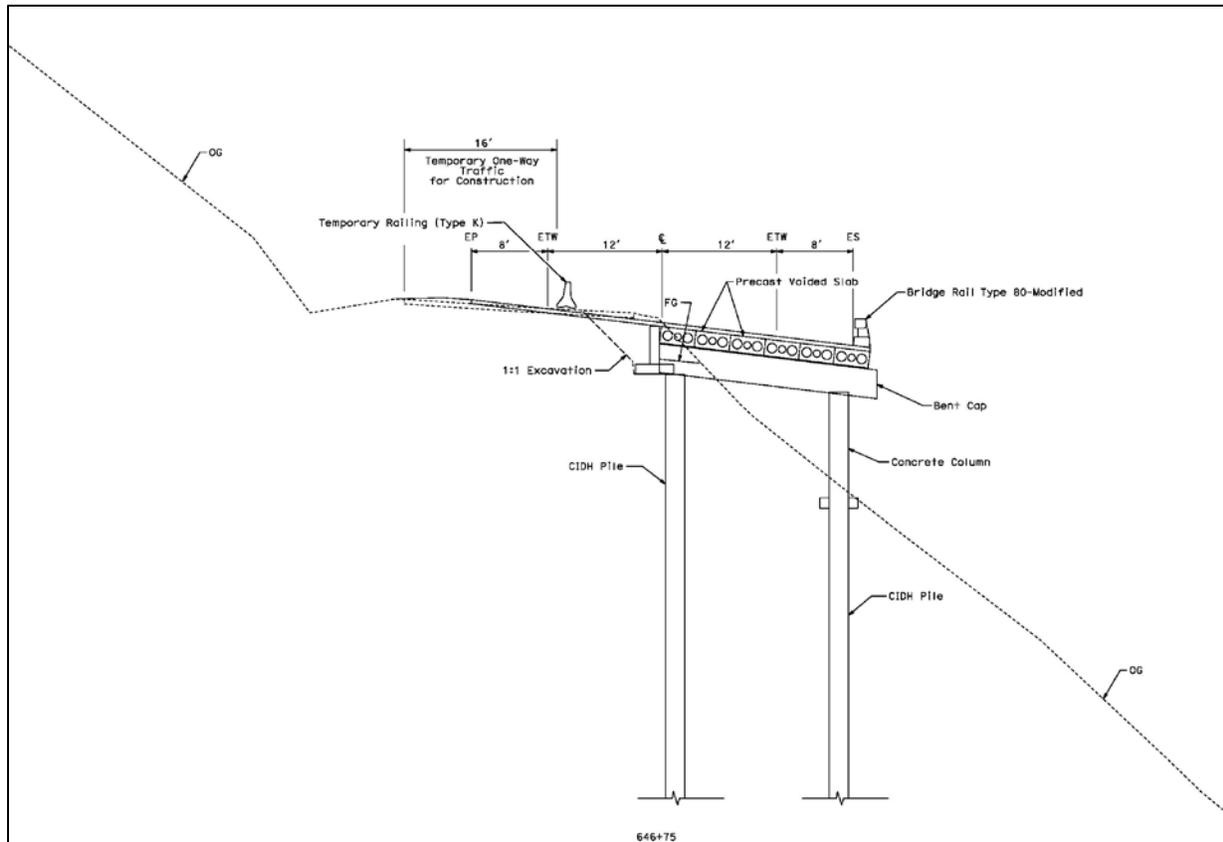
The east half (northbound side) of the roadway would be excavated, and small pads and temporary footings would be placed under the proposed viaduct to construct an access trestle. The access trestle would be constructed on the footings and existing piles to provide access for a drill rig to reach and drill the outermost CIDH support piles. The outer CIDH support piles would be drilled, reinforcing steel would be placed, and concrete would be poured up to the ground elevation.



Source: Caltrans 2014

**Figure 2. Proposed Project**

Forms would be used to create the concrete bridge support columns above the ground line, and to shape the bent caps and abutments. The bent caps and abutments are the beams that tie the left and right pair of support columns together to support the bridge deck (see Figure 3). Reinforcing steel and concrete would be used to create the bent caps.



Source: Caltrans 2014

**Figure 3. Cross Section**

To construct the bridge deck and curtain wall (the inside edge of viaduct), falsework and forms would be placed on the trestle, the bent caps, and possibly additional posts supported by footings placed on the ground under the viaduct. Reinforcing steel would be used for the curtain wall and deck. Concrete then would be poured to create the bridge deck. After the bridge concrete reached the required strength, the forms, beams, and posts would be removed from under the bridge using a lift (i.e., a crane, a boom truck, a backhoe, and a snooper truck) from the bridge deck.

To construct the bridge rail, forms (with wood architectural texture) and reinforcing steel would be placed at the edge of the bridge deck, and concrete would be poured. Rock veneer then would be added and the entire bridge rail would be stained. The bridge abutments and curtain wall would be backfilled and compacted up the elevation of the pavement structural section. Base and paving would be placed approaching the viaduct. A layer of wearing surface then would be placed on the bridge deck. Transition and terminal guardrail posts and elements would be placed at each of the viaduct bridge

rails. The temporary rail (type K) and traffic signal then would be removed. The southbound lane would be repaved, likely using flaggers for diverting one-way reversible traffic onto the newly constructed viaduct. Lastly, the finished roadway would be restriped, and the remaining construction equipment would be removed.

The construction activities have been described as accurately as possible in the planning phase. The sequence of these activities would be subject to change, based on final design and conditions during construction.

**Drainage Work:** Work would occur within the ordinary high water line of the perennial stream that flows through a 27-inch by 27-inch concrete box culvert in the project area. The side curtain wall of the viaduct would be attached to the culvert outlet headwall.

**Staging Areas:** Staging areas for equipment and materials are available at PM 7.9 along the southbound lane of Route 199, as well as in the pull outs within the project limits. All construction would occur within the existing Caltrans right-of-way. No temporary access roads would be required.

**Equipment:** The proposed project would require equipment such as a crane, a drill rig, excavators, dump trucks, portable generators, a boom truck, concrete trucks and pumps, a paver, vibratory roller compactors, hoe rams, jackhammers, a street sweeper, and personnel vehicles (pickups).

**Working Days:** Construction would occur in a period from spring, summer, to fall and would have a duration of approximately 198 working days. Construction currently is planned to begin in 2016, but it may take two construction seasons to complete.

## No-Build Alternative

The No-Build Alternative would leave the existing facility in place; therefore, collisions would not be reduced. Because this alternative does not meet the proposed project's need and purpose, it is not recommended.

## Alternatives Considered but Eliminated from Further Discussion

The proposed project study report included the following two additional alternatives. Alternatives 1 and 2 would provide the same alignment as the proposed project, but the structure types to support the widening would vary.

**Alternative 1:** Under this alternative, a soldier pile wall, approximately 24 feet high and founded on CIDH piles socketed into rock, would be the supporting structure.

**Alternative 2:** This alternative would include a sidehill viaduct, founded on CIDH support piles that would be socketed approximately 60 feet into rock at the bents, with spread footings placed on bedrock at the abutments. Alternative 2 would use

an RC box girder with tiebacks and three support columns that would be placed on the CIDH support piles.

These two alternatives were eliminated from consideration because of anticipated construction difficulties and increased environmental impacts from creation of construction access roads. No access road is anticipated for the preferred alternative.

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

The project site is located on Route 199 at PM 8.0/8.5, within the Smith River National Recreation Area (NRA), which is part of the Six Rivers National Forest. The NRA is managed by the U.S. Forest Service (USFS) to preserve, protect, enhance, and interpret the Smith River watershed's outstanding wild and scenic rivers, ecological diversity, and recreational opportunities. Route 199 is located within the Middle Fork/Route 199 Management Area, as described in the Smith River National Recreation Area Management Plan (Management Plan; USFS 1992). The land use for this area is primarily recreational; however, no designated recreational facilities are within the project limits. The physical environment within the project limits contain exposed rock outcrops, with patches of native vegetation along the roadside. The natural environment dominates the project limits with few signs of physical development. In 2005, Caltrans obtained a highway easement for construction, operation, and maintenance of Route 199. All construction related activities, staging, and operation would occur within the existing Caltrans right of way, as described in the 2005 document.

### **Permits and Approvals Needed**

- Federal Endangered Species Act Section 7 Informal Consultation, Letter of Concurrence: U.S. National Oceanic and Atmospheric Administration's (NOAA's) - National Marine Fisheries Service (NMFS) or (NOAA Fisheries)
- Federal Endangered Species Act Section 7 Informal Consultation, Letter of Concurrence: U.S. Fish and Wildlife Service (USFWS)
- 404 Permit: U.S. Army Corps of Engineers (USACE)
- 401 Certification: North Coast Regional Water Quality Control Board (RWQCB)
- 1600 Permit: California Department of Fish and Wildlife (CDFW)

## Section 2. CEQA Checklist

The environmental factors checked below potentially could be affected by the proposed project. Please see the CEQA checklist for additional information. Any boxes *not* checked represent issues that were considered as part of the scoping and environmental analysis for the proposed project, but for which no impacts were identified.

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

01-DN-199

8.0/8.5

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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 projects 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 words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. 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
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**I. AESTHETICS:** Would the project:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Have a substantial adverse effect on a scenic vista  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

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

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

**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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS:</b> 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- 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. Although Caltrans has included this good faith effort to provide the public and decision-makers with as much information as possible about the proposed project, Caltrans has determined that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, making a significance determination regarding the project's direct and indirect impact with respect to climate change, would be speculative. Caltrans remains firmly committed to implementing measures to help reduce the potential effects of the proposed project related to greenhouse gas emissions. These measures are outlined in the body of this document.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>IX. HYDROLOGY AND WATER QUALITY:</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**X. LAND USE AND PLANNING:** Would the project:

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

**XI. MINERAL RESOURCES:** Would the project:

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

**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 checked="" type="checkbox"/>	<input type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>
<b>XIII. POPULATION AND HOUSING:</b> 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"/>
<b>XIV. PUBLIC SERVICES:</b>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XV. RECREATION:</b>				
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"/>
<b>XVI. TRANSPORTATION/TRAFFIC:</b> 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"/>
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"/>
<b>XVII. UTILITIES AND SERVICE SYSTEMS:</b> 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<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"/>

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

## Section 3. Environmental Factors

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This section discusses the effects that the proposed project would have on the human, physical, and biological environment in the project area. It describes the existing environment that could be affected by the proposed project and the best management practices Caltrans uses to avoid negative impacts from the proposed project.

### No Impacts

As part of the design scoping and environmental analysis conducted for the proposed project, the following environmental issues were considered, but no potentially significant impacts were identified.

#### **Agriculture and Forestry**

No Prime Farmland, Unique Farmland, or Farmland of Statewide importance is within the project area (CDC 2014). In addition, the project site does not contain agricultural land, forest land, or timberland, and it is not zoned for such land uses. The proposed project would not convert farmland to non-agricultural use, and it would not convert forest land or timberland to non-forest use. Therefore, no impact on agriculture and forest resources would occur.

#### **Cultural Resources**

##### **Regulatory Setting (Cultural Resources)**

“Cultural resources” as used in this document refers to historic and archaeological resources. The main laws and regulations dealing with cultural resources are described next.

##### **National Historic Preservation Act**

The National Historic Preservation Act of 1966 (NHPA), as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places (NRHP). Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council of Historic Preservation (36 CFR 800).

##### **California Register of Historical Resources**

At the State level, historical resources are considered under CEQA, as well as PRC Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires State agencies to identify and protect State-owned resources that meet NRHP criteria.

## **Affected Environment (Cultural Resources)**

### **General Setting**

The project area is located along the Smith River in the geologic Western Jurassic Belt. The geology of the area is characterized by gabbro, diorite, and other rocks, as well as landslide deposits (Wagner and Saucedo 1987). The geology in the immediate project vicinity is characterized by slopes ranging from 35 to 70 degrees. The upper 76 centimeters (30 inches) consist of extremely gravelly loam, followed by 58 centimeters (23 inches) of extremely gravelly loam mixed with very gravelly loam, followed by unweathered bedrock (USDA 2014).

The majority of the project's area of potential effects (APE) is paved, developed, or previously disturbed. The staging areas are subject to frequent disturbance and have limited vegetation; however, a portion includes a non-native vegetation community, including Monterey Pine that has been planted near the roadway to control erosion.

### **Ethnography**

The project area is located in the traditional territory of the Tolowa, an Athapaskan language family-speaking group. Tolowa territory roughly corresponds to modern-day Del Norte County, although the group's population was concentrated along the coast in eight major villages with up to 300 individuals in each village.

### **Prehistory**

The earliest archaeological period in the region is the Post Pattern (11,500 to 8,000 cal B.C.), which occurred during the Pleistocene–Holocene Transition. The next period is the Borax Lake Pattern (8,000 to 2,500 cal B.C.), which occurred during the early Holocene. Much more archaeological material has been recovered, dating to this period. Sites dating to this period are found across a variety of environmental contexts, including ridge tops and river terraces, most found in Humboldt and Trinity counties.

The Mendocino Pattern lasted from 3,000 cal B.C. to cal A.D. 500, spanned the middle Holocene into the late Holocene), and overlaps the Borax Lake Pattern. Sites found that date to this period, including some found in Del Norte County, tend to be temporary or hunting camps, seasonally based, and oriented toward terrestrial-based resources.

The terminal late-Holocene period in the sequence is the Gunther Pattern (post cal A.D. 500). Artifacts diagnostic of this period include triangular-shaped, barbed points (Gunther series arrow points), ground and polished stone artifacts, utilitarian pieces (e.g. flanged pestles), steatite bowls, animal-shaped wooden clubs, polished stone adze handles, and fishing gear. Few sites from this period have been excavated inland from the coast.

## **Environmental Consequences (Cultural Resources)**

On March 28, 2014, a records search was conducted at the Northwest Information Center (NWIC) for the project APE and 0.5-mile project study area radius. No previous cultural resources investigations have been conducted within the project APE. NWIC records indicated one previous investigation for a USFS timber sale that was conducted

more than 0.25 mile southwest of the project APE. A Caltrans records search identified three previous investigations in the project APE, but the search did not identify any cultural resources within the project APE.

On April 2, 2014, a pedestrian survey of the project APE was conducted to identify cultural resources, taking into account the limits of the construction site and staging areas. No cultural resources were identified during the pedestrian survey. The entire project APE is in road-cut or areas that have been leveled to make larger flat areas (the staging areas portion of the project APE). The project APE is covered in pavement, imported gravels, or located adjacent to steep mountain sides. Limited vegetation is within the project APE, including planted Monterey Pine trees.

As part of the Section 106 process correspondence with the Native American Heritage Commission (NAHC) was initiated on March 25, 2014, to obtain information regarding ethnographic Native American values or prehistoric or historic cultural resources that may be present near or within the project area. A request was made for the NAHC to check the Sacred Lands Files to identify any culturally sensitive areas existing in the project vicinity, as well as to provide a list of tribal contacts that may have additional insights about cultural resources in the project area. In a response dated April 3, 2014, the NAHC indicated that a search of the Sacred Lands File failed to indicate the presence of Native American cultural resources in the project area. A list of Native American individuals/organizations with possible knowledge of specific resources in the area was included in the correspondence. Consultation letters were sent to these individuals and organizations on April 10, 2014, and follow up phone calls were made 2 weeks later. Some specific Section 106 consultation also includes the following actions:

### **Native American Heritage Commission**

April 3, 2014: No Native American resources were identified as a result of a search of the Sacred Lands File by the NAHC. The NAHC sent a list of Native American representatives that may have knowledge of cultural resources within the project APE (as listed below).

#### **Native American Tribes, Groups and Individuals**

- Dale Miller, Chairperson, Elk Valley Rancheria. Letter sent on April 10, 2014. Phone call on April 28, 2014. No expressed concerns, referred call to Krista Stewart.
- Kara Brudin-Miller, Chairperson, Smith River Rancheria of California. Letter sent on April 10, 2014. Phone call on April 28, 2014. Call forwarded by tribal receptionist to answering machine; no response back.
- Krista Stewart, Tribal Historic Preservation Officer, Elk Valley Rancheria. Phone call on April 28, 2014. No present concerns, would like to be kept informed about the proposed project as it proceeds. She would be kept informed, especially if any tree removal is associated with the proposed project.

- Russ Crabtree, Tribal Administrator, Smith River Rancheria of California. Letter sent on April 24, 2014. No response.
- Glen Gary, Tribal Administrator, Elk Valley Rancheria. Letter sent on April 24, 2014. No response.
- Shannon Tushingam, former Tribal Historic Preservation Officer, Elk Valley Rancheria. No longer works for the tribe.
- Suntayea Steinruck, Tribal Historic Preservation Officer, Smith River Rancheria of California. Letter sent on April 24, 2014. No response.
- Buffy McQuillen, NAGPRA Coordinator, Smith River Rancheria of California. Letter sent on April 24, 2014. No response.

Although human remains are unlikely to be encountered during proposed project-related excavation, in the event human remains (including those interred outside formal cemeteries) are discovered during subsurface activities, the construction contractor would be required to follow the procedures set forth in Section 7050.5(b) of the California Health and Safety Code. Further excavation or disturbance of the site would cease and the County Coroner would be notified so that they could ascertain the origin. If the remains are thought to be Native American, the coroner then would be required to contact the NAHC, pursuant to PRC Section 5097.98.

Based on the results of the record search, pedestrian survey, geology, the project area's highly disturbed nature, and its location within steep mountain terrain, the project APE has extremely low sensitivity for any cultural resources. The project would have no impacts on cultural resources.

### **Best Management Practices (Cultural Resources)**

The following standard best management practices would further ensure there will be no impacts on cultural resources:

- If previously unidentified cultural resources are discovered during proposed project construction, Caltrans would require that work in the vicinity of the find be halted until a qualified archaeologist can assess the significance of the find. Additional archaeological survey would be performed if project limits are extended beyond the existing survey limits.

### **Land Use and Planning**

The project site is within the Smith River NRA, which is part of the Six Rivers National Forest. The NRA was established in 1990, and is managed by USFS to preserve, protect, enhance, and interpret the Smith River watershed's outstanding wild and scenic rivers, ecological diversity, and recreational opportunities. Route 199 is located within

the Middle Fork/Route 199 Management Area, as described in the Management Plan (USFS 1992).

The Management Plan describes the eight management areas in the NRA as well as the management emphasis for each area. The Middle Fork/Route 199 Management Area is to be managed with emphasis on maintaining wildlife, scenic, and recreation values of the Smith River, a full range of recreational uses, and the status of Route 199 as a Scenic Byway. Route 199 is the most heavily used facility in the NRA.

The project segment of Route 199 is situated in the Middle Fork/Route 199 Management Area, and land use for this area is primarily recreational. The proposed project would improve an existing roadway and would not impede the free-flowing characteristics of Smith River. The proposed project would not add new lanes, increase the roadway capacity, or change any existing land uses in the project vicinity. For these reasons, the proposed project would not physically divide an established community or conflict with the Management Plan. No land use impacts would occur.

## **Mineral Resources**

The proposed project would not 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. The project site does not contain a locally important mineral resource. No known mineral resources of regional or statewide value exist at the project site. No impact on mineral resources would occur.

## **Paleontology**

The project site is underlain by Mesozoic-era mafic volcanic rock, with minor associated sandstone and conglomerate, largely or entirely of marine origin. These rocks mostly are made up of basaltic to andesitic breccias, flows, and tuffs that have been metamorphosed but with primary volcanic features generally recognizable. The project site also includes metamorphic and volcanic rocks of the Franciscan Complex, such as basaltic pillow lava, diabase, greenstone, and minor pyroclastic rocks (Caltrans 2014:22). Because of the way in which it was formed, volcanic and metamorphic rocks generally do not contain paleontological resources. Certain types of rocks in the Franciscan Complex are known to contain marine invertebrate fossils, such as mollusks and clams; however, marine invertebrates generally are common and well-studied. The fossil record is well developed and well documented; and therefore, it would not be considered a “unique” paleontological resource. A search of the University of California, Berkeley’s Museum of Paleontology database (2014) indicated that no vertebrate fossils have been recovered from Del Norte County. Therefore, no impacts on unique paleontological resources would occur. If excavation revealed fossils or other evidence of paleontological resources, construction would be halted to allow study of the discovery, and consultations would be sought with the appropriate public agencies, in compliance with applicable laws and regulations.

## **Population and Housing**

The proposed project would not extend the roadway or other infrastructure, would not construct new housing, and would not displace housing or people. No impact on population and housing would occur.

## **Public Services**

The proposed project would not result in substantial adverse physical effects associated with the provision of new or physically altered governmental facilities, and would not create a need for new or physically altered governmental facilities, the construction of which could cause significant environmental effects to maintain acceptable service ratios, response times, or other performance objectives for public services. The proposed project would provide an improvement to the roadway and would not result in the introduction and/or an increase in new residential units. Therefore, it would not cause an increased demand for public services. No impact on public services would occur.

## **Recreation**

The proposed project would not result in the introduction and/or an increase in new residential units or permanent human population in the project vicinity, and therefore it would not increase the use of existing neighborhood and regional parks. Construction of the proposed project may temporarily delay access to recreational sites along Route 199; however, the delays would be relatively short. The proposed project would provide an improvement to the roadway and would not require the construction or expansion of recreational facilities that may have an adverse physical effect on the environment. No long-term permanent impacts on recreational facilities would occur.<sup>1</sup>

## **Utilities and Service Systems**

The proposed project would not include construction of facilities (e.g., residences) that would require the project vicinity to be served by a wastewater treatment facility. Therefore, the proposed project would not require wastewater treatment services, or the construction of new water or wastewater treatment facilities, new stormwater drainage facilities, or the expansion of existing facilities. No impact on utility and service facilities would occur.

The proposed project would consist of short-term construction activities, with short-term waste generation associated with the roadway improvement. Solid waste associated with the proposed project would be disposed at an appropriate landfill with sufficient capacity, or it would be taken to a recycling facility. Solid waste generated during construction would be disposed in accordance with all applicable statutes and

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<sup>1</sup> The proposed project was evaluated to determine whether a “use” of Section 4(f) property would occur. This would not be a CEQA issue, and therefore, it is not discussed further.

regulations. The project would comply with statutes and regulations related to solid waste. No impacts related to solid waste capacity would occur.

## Less Than Significant Impacts

### **Aesthetics**

#### **Regulatory Setting (Aesthetics)**

CEQA establishes the policy of all state agencies in California to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities.” (California Public Resources Code [PRC] Section 21001[b])

In addition, Caltrans strictly follows a policy of “context sensitive design.” This policy states:

The Department uses ‘Context Sensitive Solutions’ as an approach to plan, design, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders. The context of all projects and activities is a key factor in reaching decisions. It is considered for all State transportation and support facilities when defining, developing, and evaluating options. When considering the context, issues such as funding feasibility, maintenance feasibility, traffic demand, impact on alternate routes, impact on safety, and relevant laws, rules, and regulations must be addressed.

#### **Affected Environment (Aesthetics)**

Route 199 is a Scenic Byway and is within the Smith River NRA, which is part of the Six Rivers National Forest. Route 199 passes through a steep, narrow canyon, created by the Middle Fork of the Smith River, which is a designated Wild and Scenic River. The main focal point along Route 199 is Smith River, which flows approximately 100 feet below the existing alignment.

The landform in the project limits is characterized by the North Coast Mountain Range, a north-south trending mountain range that includes the Klamath and Siskiyou ecoregion. Route 199 allows vehicles to pass through the Klamath Mountains in a northeasterly direction, to Grants Pass, Oregon. The project vicinity contains various topographic features, including forests, mountains, and the Smith River.

The project site is located on a steep, east-facing slope that contains coniferous and broad-leaf trees. The project area contains exposed rock outcrops, with patches of native vegetation along the roadside.

### **Environmental Consequences (Aesthetics)**

A licensed landscape architect has reviewed the proposed project for potential visual impacts. Based on guidance in the Caltrans Standard Environmental Reference, Chapter 27: Visual & Aesthetics Review, Caltrans determined that the proposed project would constitute a negligible or very minor visual change, and therefore a Visual Impact Assessment (VIA) memorandum was prepared (Caltrans 2014).

Three key viewing locations were identified to evaluate the proposed project's components and potential to change the visual character to viewer groups (i.e., motorists and recreational users). The visual quality of the project area was given a moderately high to high rating because of the pristine natural environment that surrounds Route 199. The analysis determined that the proposed project would have a negligible to minor effect on the overall visual quality because the visual experience for motorists and recreational users would not be negatively affected by any of the proposed build alternatives and because the vividness of the surrounding natural environment would remain unchanged.

Temporary, short-term visual impacts would occur during construction. The staging areas, soil, disturbed ground, construction equipment, temporary signage and traffic signals, and installation of the sidehill viaduct would be visible. Temporary erosion control measures also would be visible from the roadway (e.g., straw wattles, gravel-bag berms, and fiber rolls). These visual impacts would be temporary and would not require avoidance measures.

The proposed project would require construction of a sidehill viaduct on the northbound side of the roadway. The proposed project would use a modified Type 80 barrier railing with a rock texture, and form-lined rock texture for the viaduct. However, the supporting structure would be below roadway level and would only be noticeable by a viewer at a lower elevation and only from certain vantage points. The supporting structure would be barely visible from below because mature trees and vegetation on the slope between the Smith River and Route 199 would obstruct most views of the project area from the river area. Additional guardrail would be installed along the project site, extending further south and north from the existing guardrail. Some additional guardrail that will be added will include older guardrail that has a naturally weathered, dull gray color finish. Any new installed galvanized guardrail elements will either be sandblasted or acid etched to create a dull reflective quality so that the guardrail has a uniform appearance.<sup>2</sup> The proposed project would not have a significant impact on aesthetic resources; however, the following design features have been incorporated as part of the proposed project to avoid impacts to aesthetic values.

### **Best Management Practices (Aesthetics)**

The following design features have been incorporated to avoid impacts to visual resources:

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<sup>2</sup> Per the Corridor Consistency with the federal Wild and Scenic Rivers Act for Route 199 PM 0.0/36.4.

- Aesthetic treatment of the viaduct will be reviewed and approved by Caltrans District 1, to blend them with the natural surroundings to the extent feasible.
- Placement of additional guardrails should be accomplished by using older guardrails that have a naturally weathered, dull gray finish. Any new galvanized guardrail elements should either be sandblasted or acid etched to dull the reflectivity of the guardrail and create a uniform appearance. Efforts will be made to avoid removing vegetation unless required.

## **Air Quality**

Del Norte County is classified as an attainment or maintenance zone for all transportation criteria air pollutants (i.e., carbon monoxide, ozone, nitrogen oxide, PM<sub>2.5</sub> [fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less], and PM<sub>10</sub> [respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less]). The proposed project would not increase roadway capacity that would result in higher vehicle volumes, and therefore it would have no long-term effect on air quality.

The construction impacts on air quality would be short-term, and therefore it would not result in significant or long-term impacts. Construction activities for the proposed improvements would be exempt from air quality conformity regulations (Caltrans 2012b). Short-term and temporary air quality emissions would be generated during construction; however, the construction contractor would be required to comply with the Caltrans Standard Specifications, which require complying with all applicable laws and regulations related to air quality, and implementing control measures to reduce dust and construction equipment emissions. Construction-related air quality impacts would be less than significant.

## **Biological Resources**

This section evaluates the proposed project's potential to affect biological resources in the project area. A Natural Environmental Study was completed in August 2014 (Caltrans 2014), and is available for public review.

### **Regulatory Setting (Biological Resources)**

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (U.S. Code [USC], Section 1531, et seq.; see also 50 CFR Part 402). This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with USFWS and the NOAA Fisheries to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species, or destroy or adversely modify designated critical habitat.

Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species.

The outcome of consultation under Section 7 typically is a Biological Opinion with an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or any attempt at such conduct.”

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

The Amended Magnuson-Stevens Fishery Conservation and Management Act, also known as the Sustainable Fisheries Act (Public Law 104-297), requires all Federal agencies to consult with the Secretary of Commerce on activities, or proposed activities authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH).

Wetlands and other waters are protected under a number of laws and regulations. At the Federal level, the Clean Water Act (CWA; Section 404) (33 USC 1344) is the primary law regulating wetlands and surface waters. The CWA regulates the discharge of dredged or fill material into waters of the United States, including wetlands. 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 for discharge of dredged or fill material, which 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. USACE runs the Section 404 permit program, with oversight by the U.S. Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order

states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) no practicable alternative exists to the construction; and 2) the proposed project includes all practicable measures to minimize harm.

At the state level in California, wetlands and waters are regulated primarily by CDFW, the State Water Resources Control Board (SWRCB), and the RWQCB. Sections 1600–1607 of the California Fish and Game Code require any agency that proposes a project which would 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 proposed project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement is 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 the jurisdiction of USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from CDFW.

The RWQCB 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 already is permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities that may result in a discharge to waters of the U.S. This most frequently is required in tandem with a Section 404 permit request. Please see the Hydrology/Water Quality section of this Initial Study for additional details.

### **Affected Environment (Biological Resources)**

Caltrans prepared a wetland delineation in accordance with the 1987 USACE Wetland Delineation Manual on-site method (Environmental Laboratory 1987) and also a Natural Environment Study for the proposed project in 2014 (Caltrans 2014a).

The Smith River is the only major undammed river system in California and is designated as a Wild and Scenic River pursuant to both the state and federal Wild and Scenic Rivers Acts. The trees along Route 199 represent second and third growth timber stands, which are managed by Six Rivers National Forest. Upland forest community that is typical of the Klamath Range is present on the steep hillside north of the highway. This forest community is typical of the Klamath Range of California and is dominated by Douglas-fir (*Pseudotsuga menziesii* var. *menziesii*), tanoak (*Notholithocarpus densiflorus*), canyon live oak (*Quercus chrysolepis*), and big leaf maple (*Acer macrophyllum*).

The project site and staging areas are within Caltrans' right-of-way. The staging areas consists of a sparse canopy of Monterey pine (*Pinus radiata*), with an understory of predominantly non-native weeds and grasses. The narrow shoulder east of the roadway drops off abruptly to the steep bank of the Smith River. Riparian vegetation is present

along the river bank, which includes Douglas-fir, red alder (*Alnus rubra*), California blackberry (*Rubus ursinus*) and Himalayan blackberry (*Rubus armeniacus*), with various herb species and young shrubs scattered throughout.

The Smith River at the project site and the unnamed perennial stream within the project area are considered waters of the U.S., pursuant to Section 404 of the CWA. Several anadromous fish species migrate upstream from the ocean in the Smith River system, to spawn in the river and its tributaries. Throughout the year, juveniles of anadromous species are present throughout the Smith River system as they migrate to the ocean. The river and the other natural communities in the project area attract many terrestrial animal species. Diverse species of birds are present in the riparian areas.

## **Environmental Consequences (Biological Resources)**

### **Riparian Communities**

Two riparian communities have been identified in the project area: a Salix/Alnus (*Salix scouleriana*, *Salix lasiolepis*, *Alnus rubra*) riparian community, on the banks of the Smith River; and an Alnus/Rubus (*Alnus rubra*, *Rubus armeniacus*) riparian community, along the banks of the unnamed perennial creek that flows through the culvert onto the bank of the Smith River. These communities also include Douglas fir, California blackberry, and sword fern (*Polystichum minitum*), with various herb species and young shrubs scattered throughout. The project site contains approximately 0.87 acre of riparian community.

The proposed project would remove approximately 20 square feet (0.0005 acre) of riparian habitat (where six CIDH support piles would be installed on the river bank above the wetted river channel). Approximately 5,000 square feet (0.115 acre) of riparian community may be temporarily affected on the bank of the Smith River, primarily from the placement of temporary sediment and erosion control Best Management Practices (BMPs) to protect the Smith River. Approximately 100 square feet (0.0023 acre) of the riparian area of the perennial stream that flows through the culvert may be temporarily affected by placement of sediment and erosion control BMPs which are needed to protect the stream and river. No tree removal would occur; however, saplings, shrubs and herbaceous vegetation would be removed.

Because only 20 square feet (0.0005 acre) of riparian habitat would be permanently lost, and the remaining temporary impacts would affect only a small area, the impacts would be less than significant.

### **Upland Vegetation Communities**

Approximately 1.69 acres of upland vegetation communities are present within the project limits. A Pinus/Briza upland community occurs in the staging areas, a Briza/Pseudotsuga forest community occurs between the river and the roadway, and a Pseudotsuga forest community occurs on the slope west of the roadway. These communities also include tanoak and canyon live oak, with various herbaceous species scattered throughout.

Although proposed project-related work would occur in these upland communities, these species are common and widespread and are not recognized as sensitive by the California Natural Diversity Database (CNDDDB) (CDFW 2014). Therefore, the impacts would be less than significant.

### **Wetlands and Other Waters**

Wetland delineations did not identify any three-parameter wetlands, as defined by Section 404 of the CWA, within the project limits (Caltrans 2014a). However, 0.13 acres of waters of the U.S. and the State are within the project limits. The proposed project would not entail work in the Smith River. An unnamed perennial stream flows through a concrete box culvert within the project limits and the culvert outlets onto the rocky bank of the Smith River. This unnamed perennial stream is not fish bearing. This stream and the roadside ditches in the project area are considered waters of the U.S. and the State.

No substantial adverse direct or indirect effects are anticipated on the waters of the U.S. and State associated with the proposed project. No net loss of waters of the U.S. or the State would occur. The seasonal jurisdictional ditch along the west shoulder of the highway would be paved temporarily during construction, to accommodate traffic during the lane closure; however, this ditch typically is dry during the summer. After construction, the ditch would be restored to its natural contours. All work would occur on dry land above the active river channel. With implementation of the Caltrans standard BMPs for construction listed below, potential project-related impacts on waters of the U.S. and State would be less than significant.

### **Special-Status Plants**

Caltrans conducted botanical surveys in the project area in April and July 2014 (Caltrans 2014a). The surveys were timed to coincide with the periods during which many of the special-status plants that have the potential to occur in the area were blooming and identifiable. Although up to 0.1 acre of shrubs and herbaceous vegetation may be removed for installation of the viaduct, the botanical surveys found no special-status plants in the project area. Therefore, the proposed project would have no impact on special-status plants.

### **SONCC Coho Salmon**

The state and federally listed Southern Oregon and Northern California Coast (SONCC) coho salmon (*Oncorhynchus kisutch*) is known to inhabit the Smith River. Juvenile coho salmon are present in the Smith River during the summer months. No fish surveys were conducted in the Smith River in the project area. With technical assistance from the NOAA Fisheries, Caltrans determined that the proposed project may affect, but is not likely to adversely affect, SONCC coho salmon and coho critical habitat and EFH as designated under the Magnuson-Stevens Fishery Conservation and Management Act (Caltrans 2014a:30). Consultation with the NOAA Fisheries for impacts on federally threatened SONCC coho salmon and coho critical habitat and EFH has been completed for the proposed project. This consultation is covered by a programmatic Biological Opinion (BO 2013-9731) issued by the NOAA Fisheries. With implementation of the avoidance measures and Caltrans standard BMPs listed below to protect water quality

for fish habitat, potential project-related impacts on SONCC coho salmon would be less than significant.

### **Southern Oregon Coastal Chinook Salmon**

The Middle Fork of the Smith River is designated as part of the EFH for southern Oregon coastal chinook (SOCC) salmon (*Oncorhynchus tshawytscha*). Juvenile SOCC salmon are present in the Smith River during the summer months. With technical assistance from the NOAA Fisheries, Caltrans determined that the proposed project would have a potential negligible adverse effect on SOCC salmon EFH. Consultation with the NOAA Fisheries for potential impacts on this EFH has been completed for the proposed project. This consultation is covered by a programmatic Biological Opinion (BO 2013-9731) issued by the NMFS. With implementation of the avoidance measures and Caltrans standard BMPs listed below to protect water quality for fish habitat, potential project-related impacts on SOCC salmon would be less than significant.

### **Steelhead Trout**

A California species of special concern, Steelhead trout (*Oncorhynchus mykiss irideus*) is the anadromous form of rainbow trout. They are born in fresh water; migrate to the ocean where most of their growth occurs, and then return to fresh water to spawn. Unlike Pacific salmon, steelhead trout do not necessarily die after spawning. Steelhead trout are known to be present in the Smith River. With implementation of the avoidance measures and Caltrans standard BMPs listed below, potential project-related impacts on steelhead trout would be less than significant.

### **Coastal Cutthroat Trout**

Coastal cutthroat trout (*Oncorhynchus clarkii*) is a California species of special concern. The anadromous form of coastal cutthroat trout are born in fresh water, migrate to the ocean where most of their growth occurs, and then return to fresh water to spawn. Cutthroat trout are known to be present in the Smith River. With implementation of the avoidance measures and Caltrans standard BMPs listed below, potential project-related impacts on coastal cutthroat trout would be less than significant.

### **Pacific Lamprey**

A federal species of concern, Pacific lamprey (*Entosphenus tridentatus*) is anadromous (born in freshwater streams, migrate out to the ocean, and return to fresh water as mature adults to spawn). Lampreys enter streams from July to October and spawn the following spring. Lampreys are known to be present in the Smith River. With implementation of the avoidance measures and Caltrans BMPs listed below, potential project-related impacts on Pacific lamprey would be less than significant.

### **Northern Spotted Owl**

Northern spotted owl (*Strix occidentalis caurina*) is a federally listed and a state candidate species. A search of the CNDDDB (Caltrans 2014a:Figure 4.1) indicated that a northern spotted owl activity center is located approximately 1 mile west of the proposed project staging areas and over 1 mile from the project site. Construction noise would not exceed the noise disturbance criteria outlined in USFWS guidance, Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and

Marbled Murrelets in Northwestern California (USFWS 2006). Furthermore, no tree removal would occur, only saplings, shrubs, and herbaceous vegetation would be removed. Therefore, the potential impact on nesting, roosting, dispersal, or foraging habitat for northern spotted owl would be less than significant.

### **Marbled Murrelet**

Marbled murrelet (*Brachyramphus marmoratus*) is state and federally listed. A search of the CNDDDB (Caltrans 2014a:Figure 4.1) indicated a recorded marbled murrelet occurrence 0.95 mile southwest of the proposed project staging areas and more than 1 mile from the project site. In addition, designated marbled murrelet critical habitat is located across the river from the project area. However, because no suitable habitat is within 50 feet of the project site or staging areas, construction noise would not exceed the noise disturbance criteria outlined in USFWS guidance, Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (USFWS 2006). Furthermore, because no trees would be removed, no impact on potential marbled murrelet nesting habitat would occur. Therefore, the potential impact on marbled murrelet would be less than significant.

### **Migratory Birds**

Under the Migratory Bird Treaty Act of 1918 (16 USC 703-712), disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered “take,” and therefore is unlawful. Although the proposed project would not include tree removal, migratory birds may nest in saplings or other vegetation that is within or adjacent to the project limits. With implementation of the avoidance measures and Caltrans BMPs listed below, potential project-related impacts on migratory birds would be less than significant.

### **Other Special-Status Species**

The USFWS species list for the Hiouchi quadrangle shows the federally listed tidewater goby (*Eucyclogobius newberryi*), green sturgeon (*Acipenser medirostris*), yellow-billed cuckoo (*Coccyzus americanus*), and Pacific fisher (*Martes pennanti*) in the project vicinity. The CNDDDB query showed the California special status species black swift (*Cypseloides niger*), Del Norte salamander (*Plethodon elongatus*), and southern torrent salamander (*Rhyacotriton variegatus*) in the project area. No suitable habitat for Pacific fisher, tidewater goby, yellow-billed cuckoo, black swift, Del Norte salamander, and southern torrent salamander exists in the area that will be impacted by the project; and no known green sturgeon spawning occurs in the Smith River. Therefore, the proposed project would have no impact on these special-status species.

### **Invasive Species**

The project area could be subject to the potential increase of invasive plant and animal species from construction activities. Sudden oak death (SOD) is a disease of oak trees caused by an invasive plant pathogen, *Phytophthora ramorum*. It currently occurs in coastal California counties from Monterey to Humboldt and in a small portion of southwest Oregon and it can be spread by moving infested soil and plant materials. Port Orford Cedar (POC) root disease is also known to be present in Del Norte County (Caltrans 2014a). Since the pathogens are present in the affected plant materials and

the associated soil, all plant material removed for construction of the project will be left on site and no surface soil will be removed from the site. Standard construction practices and implementation of BMPs require that revegetation of the site use native seed mix. Potential impacts from the proposed project related to invasive species would be less than significant.

### **Best Management Practices (Biological Resources)**

The following avoidance measures and best management practices would be implemented to prevent impacts on biological resources.

### **BMPs for Wetlands, SONCC Coho Salmon, SOCC Salmon, Steelhead Trout, Coastal Cutthroat Trout, and Pacific Lamprey**

For the proposed project, Caltrans will use applicable BMPs to stabilize all bare soil areas over both the short and long term, and to avoid adverse effects on water quality, aquatic habitat, and listed species. The BMPs will include treatment controls, soil stabilization practices, scheduling, and contract Standard Special Provisions. Any debris and sediment will be contained within the project site or will be diverted into a sedimentation basin before being returned to any receiving waters. When construction is completed, areas of disturbed soil will be seeded and planted with local native plant species. Excess material excavated from the project site will be disposed at an approved off-site disposal facility away from any stream course or will be reused as fill on site.

Additional BMPs will include the following:

- Silt fences and fiber rolls will be placed to control sediment discharge, and therefore minimal sediment will be released into receiving waters.
- Measures will be taken to prevent construction equipment effluents from contaminating soil or waters in the construction site.
- Excavated spoils will be controlled to prevent sedimentation to the stream.
- Straw mulch, silt fences, and fiber rolls will be applied to exposed soil areas for over-wintering protection from erosion if two construction seasons are necessary to complete the work.
- The construction contractor will be required to develop and implement site-specific BMPs, a Water Pollution Control Plan, and emergency spill controls.
- No concrete washings or water from concrete will be allowed to flow into waterways. No concrete will be poured within flowing water in the waterways.
- Water that has come into contact with setting concrete will be pumped into a tank and disposed at an approved disposal facility.

- Caltrans will offset the increase in impervious surface (less than 0.01 acre) associated with installation of the viaduct by removing pavement from the pullouts to the north and south of the viaduct. These areas will be de-compacted, soil will be placed, and will be seeded with native herbaceous species.

### **BMPs for Migratory Birds**

Caltrans' standard construction specifications instruct the construction contractor about protecting migratory birds and their (active) nests, eggs, and young, and about measures to be implemented to avoid the harassment or take of any birds. Vegetation removal would be limited to September 15 through March 1, to avoid taking nesting birds. If vegetation removal cannot be performed within this period, then surveys by a biologist will be performed before removal of any vegetation. If nesting birds are present, vegetation removal would not be permitted until a Caltrans biologist has given authorization to proceed, based on verification that the birds are no longer nesting.

Caltrans would implement its standard construction practices, which include measures to control noise (Caltrans 2014b).

### **Geology and Soils**

The west side (southbound side) of the project area has a narrow shoulder between the edge-of-travelled way and cut slope. The cut slope is mostly a steep, high wall of exposed bedrock. The embankment below the eastern side (northbound side) drops down steeply to Smith River. Most soil in the project area is part of the Maymen family-rock outcrop, meta-igneous complex, which consists of shallow (0 to 8 inches) gravelly loam that overlies unweathered bedrock (Caltrans 2012b). This soil represents residuum, weathered from igneous and metamorphic rock (Caltrans 2012b).

The project site is not in an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act (California Geological Survey 2012), and no known active or potentially active faults run through the site. The nearest known active seismic sources (classified as "active" by the California Geological Survey) are approximately 65 miles southwest of the project site (Jennings 1994). Therefore, potential impacts related to surface fault rupture and strong seismic ground shaking would be less than significant. Furthermore, liquefaction is unlikely because the project site is situated on stable, older rock formations. Because the potential for strong seismic ground shaking is low, the potential for seismically induced landslides is also low. The potential for adverse effects related to earthquakes, faults, ground shaking, and liquefaction would be less than significant.

The proposed project would require ground-disturbing activities that could result in short-term, temporary loss of topsoil. A Water Pollution Control Plan (WPCP) would be prepared and implemented for the proposed project, which would include planned measures to control and manage soil erosion, sedimentation, and runoff. Standard construction site BMPs required by Caltrans, would include erosion control measures such as fiber rolls, gravel-bag berms, and silt fencing. By complying with the applicable

regulations and with implementation of BMPs, potential impacts related to soil erosion or the loss of topsoil would be less than significant.

## **Hazards and Hazardous Materials**

Project-related construction activities would include the use and transport of minor amounts of hazardous materials, such as fuels, oils, and lubricants associated with paving and construction equipment. However, all the construction activities would be conducted in compliance with applicable federal, State, and local regulations that govern the transportation and use of hazardous materials. In the event that any accidental spills of these materials occurred, it would be cleaned up in accordance with federal, State, and local regulations. Potential impacts related to the transport, use, and disposal of hazardous materials would be less than significant.

The Caltrans Office of Environmental Engineering completed an Initial Site Assessment (ISA) for the proposed project on February 6, 2012. The agency confirmed that the project site is not on the Hazardous Waste and Substances Site List (Cortese List) (Caltrans 2012a). According to the ISA and published mapping, the project site is not within a mapped ultramafic rock unit. Such rocks can have naturally occurring asbestos (NOA). However, because ultramafic rock is prevalent in the project vicinity, imported materials within the aggregate base or shoulder backing could contain NOA. NOA can represent a human health hazard if the rock is crushed and the asbestos fibers are inhaled. If encountered, NOA would be treated in accordance with the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (California Environmental Protection Agency [Cal/EPA]/Air Resources Board, Final Regulation Order 2002-07-29 and Title 17, Section 93105 of the California Code of Regulations). This regulation would require notification of the North Coast Unified Air Quality Management District when proposed project construction activities occurred in areas where NOA may exist, and compliance with applicable requirements. By complying with the applicable regulations and standards, potential impacts related to any hazardous materials would be less than significant.

## **Hydrology/Water Quality**

### **Regulatory Setting**

#### **Clean Water Act**

Sections 303, 304, 401, 402, and 404 of the CWA contain the primary federal laws governing water quality. The act's objective is "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." The CWA establishes the basic structure for regulating discharge of pollutants and gives EPA authority to implement pollution control programs. EPA has authorized Cal/EPA to administer the CWA in California.

### **Clean Water Act Sections 401 and 404 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 U.S. must obtain 401 Certification, certifying that the proposed project would be in compliance with State water quality standards. The most common federal permit triggering 401 Certification is a CWA Section 404 permit, issued by USACE. Obtained from the appropriate RWQCB, 401 Certification is dependent on the project location and is required before USACE issues a 404 permit. Section 401 regulations allow the RWQCB Executive Officer wide discretion in implementing Basin Plan requirements and water quality objectives, including Section 303(d) of the CWA. Because of the number and extent of sediment impaired waterbodies under its jurisdiction, the North Coast RWQCB regulates stormwater discharges through the 401 Certification program, and the project area is in this region.

### **NPDES Program: Municipal Separate Storm Sewer Systems**

Section 402 of the CWA, or the National Pollutant Discharge Elimination System (NPDES), requires issuance of a permit for five categories of stormwater dischargers, including Municipal Separate Storm Sewer System (MS4s). EPA defines an MS4 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 stormwater, that are designed or used for collecting or conveying stormwater.” The EPA has delegated administration of the NPDES program to the SWRCB and nine RWQCBs. The SWRCB and RWQCBs also are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and for regulating discharges to ensure compliance with the water quality standards.

The SWRCB has identified Caltrans as an owner/operator of an MS4, pursuant to federal regulations. The Caltrans MS4 permit covers all Caltrans rights-of-way, properties, facilities, and activities in California. This permit, adopted by the SWRCB on September 19, 2012, and effective from July 1, 2013, contains three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (CGP) (see below);
2. Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges; and
3. Caltrans stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) 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 2003 (SWMP) to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California (Caltrans 2003). The SWMP assigns responsibilities within Caltrans for implementing

stormwater 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 that Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project would follow the guidelines and procedures outlined in the SWMP to address stormwater runoff.

### **NPDES Program: General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities**

Construction General Permit (CGP) (Order No. 2009-009-DWQ, as amended by 2010-0014-DWG and 2012-0006-DWQ), adopted on July 17, 2012, became effective on July 17, 2012. The permit regulates stormwater discharges from construction sites that result in a disturbed surface area (DSA) of 1 acre or greater, and/or smaller sites that are part of a larger common plan of development. For all projects subject to the CGP, applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans Standard Specifications, a WPCP is necessary for projects with DSA less than 1 acre.

### **Affected Environment (Hydrology/Water Quality)**

A Water Quality Assessment report was prepared for the proposed project, which identified the Environmental Study Limits (ESLs) for the analysis. The ESLs include the construction site boundaries and staging areas.

The area within the ESLs drains into channels confluent to the Smith River. A 27-inch concrete box culvert at PM 8.25 crosses under the road within the ESLs. The cross culvert at PM 8.25 collects surface water from roadside ditches along the westbound shoulder of Route 199 and from the unnamed creek that ultimately outlets into the Middle Fork of the Smith River, and this area would fall under the jurisdiction of USACE, the RWQCB, and CDFW. The Smith River is a navigable water of the U. S. and is an anadromous fish-bearing river; however, no fish are in the creek that flows through the culvert. Water that passes through the culvert discharges into the Middle Fork of the Smith River, hydrologically connecting the project site to the Smith River.

The unnamed creek collects surface water from a watershed that is approximately 55.6 acres. The total channel length of the unnamed creek is approximately 3,240 feet. This size of watershed is relatively large for a culvert with these features. The Culvert Inspection Report from 1982 states that no concerns exist with culvert maintenance or objectionable back water, and the Culvert Inspection Report from 2012 states that moderate deficiencies exist, but the report does not recommend maintenance of the culvert. (Caltrans 2012a)

No wetlands are present within the ESLs. The perennial creek and the roadside ditch that flow through the culvert are waters of the U.S. and the State.

## **Environmental Consequences (Hydrology/Water Quality)**

On April 2, 2014, a field visit conducted by a water quality specialist, and a Water Quality Assessment was prepared in August 2014.

The perennial creek and the roadside ditch that flow through the culvert were identified as waters of the State and U.S. Construction would occur within the boundaries of the perennial creek channel and roadside drainage ditch, and therefore potentially could affect jurisdictional waters of the U.S. The proposed project would require a 404 permit from the USACE and 401 Certification from the North Coast RWQCB. Measures to compensate for potential project effects on other waters of the U.S. and State would be determined in consultation with USACE and the North Coast RWQCB.

The proposed project would not change flood control functions in the project area. The project area is outside the Federal Emergency Management Agency's flood hazard area for the Smith River. The proposed project design would not change peak stormwater runoff rates and volumes, or affect downstream flood flow conditions. The proposed project would result in a net increase in impervious surface area of less than 0.01 acre; changes in peak stormwater runoff rates would be negligible.

The proposed project would potentially result in short-term impacts on water quality during construction. The primary causes of construction-related impacts would be from increased sediment and dust, generated by ground-disturbing activities and removal of vegetation, management of high pH water associated with support pile construction, and accidental discharge of pollutants associated with construction equipment and materials (hydraulic fluids). The construction contractor would be required to implement the standard temporary construction site BMPs (found in the Caltrans Storm Water Project Planning and Design Guide or in Section 7-1.01G of the Caltrans Standard Specifications), to control potential discharges of pollutants to surface waters during and immediately after construction.

Before any ground-disturbing activities begin, the construction contractor would be required by Caltrans contract specifications to prepare and implement a WPCP, including erosion control measures and construction waste containment measures so that waters of the State are protected during and after construction. The WPCP would describe the BMPs that the construction contractor would use to prevent erosion and sedimentations. Examples of temporary BMPs include: silt fences, hydraulic mulch, hydroseeding, lined ditches, street sweeping, fiber rolls, storm drain inlet protection, and spill control and prevention measures.

Caltrans also would adhere to the conditions of the NPDES permit issued by the SWRQB.

The proposed project design would include permanent measures for reconstructing roadside ditches as necessary. With implementation of the BMPs in the WPCP and adherence to the conditions of the 404 Permit, 401 Certification, and the CGP, the potential impact on hydrology and water quality would be less than significant.

### **Best Management Practices (Hydrology/Water Quality)**

Although no significant impacts would occur, the following avoidance measures and BMPs would be implemented to further reduce potential hydrology and water quality impacts.

### **Permanent Design Features (Hydrology/Water Quality)**

The proposed project design will include the following permanent pollution prevention BMPs to reduce erosion and sediment transport:

- Roadside ditches will be reconstructed as necessary.
- Approximately 4,000 square feet of pavement will be removed from the existing pullouts to the north and south of the proposed viaduct. These areas will be decompacted, soil will be placed, and the areas will be seeded with native herbaceous species.

### **Temporary Construction Measures (Hydrology/Water Quality)**

Standard temporary construction site BMPs will be used to control potential discharges of pollutants to surface waters during and immediately after construction. Caltrans shall require that the construction contractor implement temporary construction phase BMPs to protect water quality in aquatic habitats, in and adjacent to the project area and staging areas. Because construction will be dynamic, the construction contractor will determine locations for implementing these BMPs. Adequate material quantities will be available to allow the construction contractor to have sufficient flexibility to implement the BMPs as needed.

At the staging areas, BMPs such as fiber rolls, and gravel-bag berms may be used to direct stormwater run-on from adjacent slopes and prevent sheet flow from intercepting stockpiled materials. These measures will be used to control sediment and silt in runoff coming off the staging areas into the roadside ditch down slope (west) from the staging areas. In the project area, these measures will also be implemented to control sediment and silt in runoff. In addition, silt fencing will be installed down slope from exposed soil areas, and because of the steep slopes in the project area, reinforced silt fences may need to be anchored back into the slope with cables.

Before any ground-disturbing activities begin, the construction contractor will prepare and implement a WCPC that will include erosion control measures and construction waste containment measures so that waters of the State will be protected during and after construction. The WCPC will be prepared with the following objectives: (a) to identify pollutant sources, including sources of sediment, that may affect the quality of stormwater discharges from construction; (b) to identify BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the project area during construction; (c) to outline and provide guidance for BMP monitoring; (d) to identify project discharge points and receiving waters; (e) to address post-construction BMP implementation and monitoring; and (f) to address sedimentation, siltation, turbidity, and non-visually detectable pollutant monitoring, and outline a sampling and analysis strategy. The WCPC will describe the BMPs that the

construction contractor will use to prevent erosion and sedimentation during and after construction. BMPs anticipated to be used include the following:

- Temporary Silt fence
- Hydraulic mulch
- Hydroseeding
- Lined ditches
- Street sweeping
- Temporary Fiber rolls
- Temporary drain inlet protection
- Temporary gravel bag berm
- Temporary Dewatering operations

### **Spill Prevention and Control Measures**

The WPCP will include a waste management section that will provide procedural and structural BMPs for collecting, handling, storing, and disposing wastes generated by construction, to prevent the accidental release of pollutants during construction. For example, no refueling, storage, servicing, or maintenance of equipment will take place within 100 feet of aquatic habitat, and all machinery used during construction will be properly maintained and cleaned to prevent spills and leaks that may contaminate soil or water. The WPCP also will include measures to report, contain, and abate any accidental spills during construction. Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) will be cleaned up in accordance with applicable local, State, and federal regulations.

### **Greenhouse Gas Emissions**

An individual project does not generate enough greenhouse gas (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 contribution of all other sources of GHG.<sup>3</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines sections 15064(h) (1) and 15130). To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

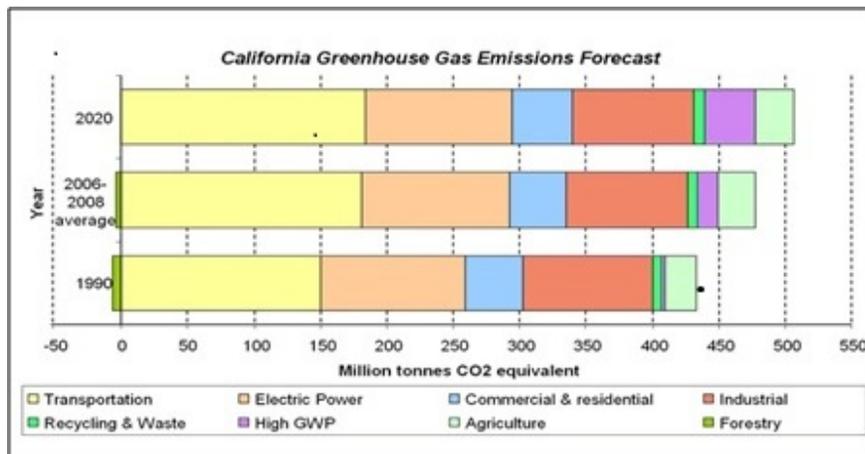
The AB 32 Scoping Plan mandated by AB 32 contains the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California (forecast last updated: May 2014). The forecast is an estimate of the emissions expected to occur in the year

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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 US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

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, published in December 2006.



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

**Figure 4. California Greenhouse Gas Forecast**

### Project Analysis

The purpose of the proposed project is to reduce the frequency and severity of collisions within the project limits by providing an improved recovery area, an increased curve radius, improved super elevation, rumble strips, and high friction surface treatment. The proposed project will not increase capacity or vehicle miles travelled, therefore no increases in operational GHG emissions are anticipated.

### Construction Emissions

GHG 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 onsite 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 traffic management practices during construction phases (Caltrans 2006). Even though the project is not anticipated to increase operational GHG emissions, the proposed project would generate some GHG emissions during construction.

### **CEQA Conclusion (Greenhouse Gas)**

While construction will result in a slight increase in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG 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 significance determination with regard to the project's direct impact and its contribution on the cumulative scale related to climate change. However, Caltrans is firmly committed to implementing measures to help reduce GHG emissions, as follows:

#### **AB 32 Compliance**

Caltrans continues to be actively involved on the Governor's Climate Action Team as ARB works to implement the 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. Former Governor Arnold Schwarzenegger's Strategic Growth Plan calls for a \$222 billion infrastructure improvement program to fortify the state's transportation system, education, housing, and waterways, including \$100.7 billion in transportation funding during the next decade. The Strategic Growth Plan targets a significant decrease in traffic congestion below today's level, and a corresponding reduction in GHG emissions; the Strategic Growth Plan proposes to accomplish these targets while accommodating growth in population and the economy. A suite of investment options has been created that, combined together, are expected to reduce congestion. The Strategic Growth Plan relies on a complete systems approach to attain CO<sub>2</sub> reduction goals: systems monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements, as depicted in Figure 5.

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



**Figure 5: Mobility Pyramid**

### **Adaptation Strategies**

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects 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.

On November 14, 2008, former Governor Arnold Schwarzenegger signed EO S-13-08 which directed a number of state agencies to address California’s vulnerability to sea level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea level rise.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency (reorganized and now known as 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. The

Department continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

The proposed project location is outside of the coastal zone and is not in an area expected to experience direct impacts due to sea level rise for the projected 2050 and 2100 years.

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

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

Although construction emissions would be unavoidable, project related emissions are expected to be minimal. The proposed project would not increase roadway capacity and would not result in additional operational carbon dioxide emissions. Caltrans has concluded that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, a determination regarding the significance of the proposed project's direct impact and its contribution on the cumulative scale to climate change would be speculative. However, Caltrans is firmly committed to implementing measures to help reduce the potential adverse effects of the proposed project related to greenhouse gas emissions.

**Noise:** Short-term noise impacts would occur from the use of stationary and mobile construction equipment and vehicles. Project construction equipment would include excavators, compressors, generators, haul trucks, concrete breakers, pavers, debris and material loaders, diesel-powered earth-moving equipment, a crane, and impact tools. Project construction noise levels would fluctuate, depending on the construction phase, equipment type, quantity and duration of use, and the presence or absence of barriers. The construction contractor would be required to comply with Section 14 of the Caltrans Standard Specifications, which would require construction noise. By complying with the applicable regulations and standard specifications, the potential noise impacts would be less than significant.

The proposed project would not add new lanes to the roadway, and therefore it would not increase the roadway capacity or induce an increase in traffic. The proposed project would meet the criteria for a Type III project, established in Title 23, Section 772 of the

Code of Federal Regulations (CFR) (Caltrans 2012b). Therefore, the proposed project requires no analysis for highway traffic noise impacts (Caltrans 2012b). Type III projects do not involve added capacity, construction of new through lanes or auxiliary lanes, changes in the horizontal or vertical alignment of the roadway, or exposure of noise sensitive land uses to a new or existing highway noise source (FHWA 2011). The proposed project would not result in a permanent increase in noise levels and would have no long-term impact.

## Cumulative Environmental Consequences

### Cumulative Consequences to Cultural Resources

As described previously, the project APE has extremely low sensitivity for cultural resources, and impacts would be less than significant. All projects considered in the cumulative impact analysis would have the potential to affect cultural resources. However, these impacts generally would be site-specific and would depend on the geologic formations, which may vary from location to location. However, Caltrans' policy is to implement avoidance measures in the event that cultural resources are identified, to prevent and/or reduce potential impacts. Unanticipated impacts on cultural resources also would be addressed by compliance with existing State and Federal regulations. The potential impacts of the cumulative projects would be prevented through implementation of avoidance measures and compliance with regulations. Therefore, the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact on cultural resources.

### Cumulative Consequences to Wetlands and Other Waters of the United States

No wetlands are in the project area, and therefore the proposed project would have no impacts on wetlands. The proposed project would not have direct or indirect effects on the 0.13 acres of waters of the U.S. within project limits. The cumulative projects could have the potential to impact wetlands, other waters of the U.S., and waters of the State. However, Caltrans' policy is to implement avoidance measures as well as best management practices to protect the functions and values of aquatic resources.

**Table 1. Projects Considered for Cumulative Consequences  
(in addition to the proposed project)**

Project Name	Location (post mile)	Description	Status
Patrick Creek Narrows 1 Project	20.5 to 20.7	Roadway curve improvement and roadway widening to accommodate two 12-foot-wide lanes and 4-foot shoulders. 190-foot-long, 5-foot-tall retaining wall on river side with Type 80 concrete barrier modified with architectural treatment. Replace two 18-inch culverts with 24-inch culverts and new drainage inlets.	Pending resolution of litigation. Targeted construction between 2013 and 2018.
Patrick Creek Narrows 2 Project	23.9 to 24.3	Replace existing Middle Fork Smith River Bridge with a bridge downstream from current location. Realign and widen existing 11- to 12-foot wide lanes to 12 feet and increase	Pending resolution of litigation. Targeted construction between 2013 and 2018.

**Table 1. Projects Considered for Cumulative Consequences  
(in addition to the proposed project)**

Project Name	Location (post mile)	Description	Status
		shoulders to 8 feet wide. Retaining wall and sidehill viaduct.	
Patrick Creek Narrows 3 Project	25.55 to 25.65	Increase shoulder width to at least 8 feet on both sides of the road and eliminate the "S" curve. 180-foot-long, 15-foot-tall wall on the river side. Replace two 18-inch culverts with three 24-inch culverts and inlets.	Pending resolution of litigation. Targeted construction between 2013 and 2018.
Narrows Project	22.7 to 23.0	Increase lane widths to 12 feet and provide 0.5 to 2-foot-wide shoulders. 2-foot wide unpaved drainage ditch to the cut side of the road. Replace existing culvert and drain inlet.	Pending resolution of litigation. Targeted construction between 2015 and 2018.
Washington Curve Project	26.3 to 26.5	Improve compound curve and increase the lane width to a minimum of 12 feet and provide 4 foot wide shoulders. Replace one culvert.	Pending resolution of litigation. Targeted construction between 2015 and 2018.
Source: Caltrans 2014			

State and federal laws regulating waters impose standards which aim to reduce and eliminate potential impacts. Federal regulations require that no net loss of wetlands occur, and State regulations impose strict standards on water quality. In accordance with State and Federal permit requirements, unavoidable effects on wetlands are mitigated. Therefore, the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact on wetlands, other waters of the U.S., and waters of the State.

### **Cumulative Consequences to Threatened and Endangered Species**

Several special-status aquatic species were identified to be present in the Smith River, with the Smith River designated as EFH for several species. Implementation of BMPs and compliance with permit requirements would further reduce potential impacts on aquatic habitat and noise effects on wildlife. Therefore, construction of the proposed project would have a less-than-significant impact on special-status species.

All projects considered in the cumulative impact analysis would have the potential to affect threatened and/or endangered species from construction activities. However, Caltrans' policy is to implement avoidance measures and standard BMPs to prevent and/or reduce potential impacts. State and Federal regulations make it unlawful to pursue, hunt, take, capture, kill, or attempt to hunt, take, capture, or kill any threatened or endangered species protected under the Endangered Species Act. Potential impacts would be reduced through implementation of avoidance measures, use of BMPs, and compliance with permit requirements.

Therefore, the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact on threatened and endangered species.

### **Cumulative Consequences to Aesthetics**

As described previously, the proposed project impacts on aesthetics would be less than significant. The proposed project would result in temporary visual impacts from construction activity. The proposed curve improvements would result in changes to the visual character from widening the roadway, increasing shoulder widths, and constructing a viaduct, but would not result in significant impacts. In addition, a modified Type 80 barrier railing with a rock texture for the viaduct and other aesthetic treatment would be approved by Caltrans District 1 so that the proposed project would blend with the natural surroundings to the extent feasible.

The cumulative projects along the Route 199 corridor are all safety improvement projects. Impacts on aesthetics would be site-specific and would result from one or more of the following: vegetation removal, roadway and shoulder widening, culvert replacement, and retaining walls. Construction impacts would be minor, temporary, and less than significant. The cumulative project components (e.g. roadway widening, shoulder widening, curve corrections, and installation of guardrails) would result in site-specific changes and could alter the visual character of the immediate area of the cumulative projects. However, each project would be required to implement design and construction BMPs, which would incorporate appropriate aesthetic treatments (i.e., materials, pattern, texture, and color) to blend with the surroundings.

Therefore, the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact on aesthetics.

### **Cumulative Consequences to Hydrology and Water Quality**

All projects considered in the cumulative impact analysis would have the potential to affect hydrology and water quality from construction activities. Hydrology and water quality impacts generally are site-specific because each project site would have a different set of physical considerations for construction. However, Caltrans' policy is to implement avoidance measures and BMPs to prevent and/or reduce potential impacts. State and Federal regulations would apply to all cumulative projects and would impose strict standards on water quality, intended to avoid potential impacts. Permit requirements would include monitoring and reporting programs so that discharges would comply with water quality standards.

As described previously, construction of the proposed project could result in potential temporary water quality impacts, including the release of pollutants such as sediment, high pH water, oil and grease, chemical pollutants (hydraulic fluids), and trash and debris. Soil disturbance could expose soil to erosion from wind and water that could result in sedimentation of nearby surface water.

Potential permanent water quality impacts also could occur as a result of an increase in impervious surface and associated increase in runoff velocity and volume. However, as

currently scoped, the proposed project would result in a net increase in impervious surface area less than 0.01 acre, and changes in peak stormwater runoff rates and volumes would be negligible.

Potential permanent water quality impacts also could result from pollutants typically generated from transportation-related projects, including sediment/turbidity, nutrients, organic compounds, trash and debris, oxygen-demanding substances, oil and grease, and metals. Pollutants found in highway runoff may originate from vehicle tire and brake wear, fuels and lubricants, and exhaust emissions. Because the proposed project would not increase capacity on the highway, the overall number of vehicles using the roadway would continue to be dictated by regional land use and economic conditions. Potential water quality and hydrology impacts from the proposed project would be less than significant and would be offset further by implementation of BMPs as well as through compliance with permit requirements.

Therefore, the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact on hydrology and water quality.

### **Conclusion**

The proposed project is intended to improve the safety of a segment of roadway. No capacity-increasing improvements are proposed. With implementation of avoidance measures and BMPs, as well as through compliance with permit requirements, the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact on aesthetics, cultural resources, biological resources, or hydrology and water quality.

## Section 4: Comments and Coordination

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Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and avoidance measures, and other related environmental requirements. Agency consultation and public participation for the proposed project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, and consultations with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries). This chapter summarizes Caltrans' efforts to identify, address, and resolve proposed project-related issues through the following early and continuing coordination:

- April 2014: Technical assistance from NMFS Biologist Shari Whitmore regarding federally listed coho salmon, SONCC critical habitat, and EFH for coho and Chinook salmon
- April 2014: Technical assistance from Gregory Schmidt, to avoid proposed project impacts on federally listed northern spotted owl and marbled murrelet
- March 25, 2014: Correspondence with NAHC, initiated by Caltrans by a request to check the Sacred Lands File

This Initial Study will be available for public and agency review and comment for 30 days. Comments received during this period will be considered before approval of the proposed project.

## Section 5. List of Preparers

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The following staff contributed to the preparation of this document:

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Contribution: Document writer

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## Section 6. List of Abbreviated Terms

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APE	area of potential effect
ARB	Air Resources Board (State)
BMP	best management practice
BO	Biological Opinion
CAL/EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CGP	Construction General Permit
CIDH	cast-in-drilled-hole
CIP	cast-in-place
CNDDDB	California Natural Diversity Database
Cortese List	Hazardous Waste and Substances Site List
CWA	Clean Water Act
DSA	disturbed surface area
EFH	Essential Fish Habitat
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESL	Environmental Study Limit
ISA	Initial Site Assessment
Management Plan	Smith River National Recreation Area Management Plan
MS4s	Municipal Separate Storm Sewer System
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	NOAA's National Marine Fisheries Service
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRA	National Recreation Area
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
PM	post mile
RC	reinforced concrete
Route 199	U.S. Highway 199
RWQCB	Regional Water Quality Control Board
SONCC	Southern Oregon and Northern California Coast
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMP	Transportation Management Plan

USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFS	U.S. Forest Service
VIA	Visual Impact Assessment
WDR	Waste Discharge Requirement
WPCP	Water Pollution Control Plan

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