

# **Klamath River Bridge Project (Bridge No. 02-0015)**

SISKIYOU COUNTY, CALIFORNIA  
02-SIS-96-PM 103.0/103.6  
02-SIS-263-PM 56.7/57.2  
EA# 2E4800/EFIS# 0200000586

## **Draft Environmental Impact Report / Environmental Assessment and Programmatic Section 4(f) Evaluation**



**Prepared by the  
State of California Department of Transportation**

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.



**June 2016**

## General Information about This Document

### What's in this document?

This document is an Environmental Impact Report / Environmental Assessment and Programmatic Section 4(f) Evaluation, which examines potential environmental effects that may result from implementation of the proposed Klamath River Bridge project on State Route 263 in Siskiyou County, California. The document describes why the project is being proposed, the existing environment, project alternatives, and potential effects upon the environment. This document was prepared to comply with the California Environmental Quality Act and the National Environmental Policy Act respectively.

### What you should do?

- Please read this Environmental Impact Report / Environmental Assessment and Programmatic Section 4(f) Evaluation.
- Additional copies of this document are available for review at 1031 Butte Street in Redding, the Yreka Library in Siskiyou County and on the internet at [www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm](http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm). The related technical studies will be available at the 1031 Butte Street location by request only.
- We welcome your comments. If you have any questions or concerns regarding the proposed project, please attend the public information meeting and/or send your written questions or comments to Caltrans by the deadline via regular mail to:

California Department of Transportation  
Chris Quiney, Environmental Branch Chief  
Office of Environmental Management-MS30  
1031 Butte Street  
Redding, CA 96001

- You may also submit comments via email to [chris.quiney@dot.ca.gov](mailto:chris.quiney@dot.ca.gov)
- Submit comments by the deadline: August 26, 2016.

### What happens next?

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

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Equal Employment Opportunity Officer, 1657 Riverside Drive, CA 96001; (530) 225-3055 Voice, or use the California Relay Service TTY number, (530) 225-2019.

It should be noted that at a future date FHWA or another federal agency may publish a notice in the Federal Register, pursuant to 23 United States Code Section 139(l), indicating that a final action has been taken on this project by FHWA or another federal agency. If such notice is published, a lawsuit or other legal claim will be barred unless it is filed within 180 days after the date of publication of the notice (or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed). If no notice is published, then the lawsuit or claim can be filed as long as the periods of time provided by other federal laws that govern claims are met.

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02-SIS-96-PM 103.0/103.6  
02-SIS-263-PM 56.7/57.2  
EA#2E480  
EFIS#0200000586

**Replacement of the Klamath River Bridge on State Route 263 in Siskiyou County, four miles north  
of the Yreka city limits**

**DRAFT ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT AND  
PROGRAMMATIC SECTION 4(F) EVALUATION**

Submitted Pursuant to: (State) Division 13, California Public Resources Code  
(Federal) 42 USC 4332(2)(C) and 49 USC 303

THE STATE OF CALIFORNIA  
Department of Transportation, and

U.S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration

*5-28-2016*

Date of Approval



Dave Moore  
District Director, District 2  
California Department of Transportation

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1031 Butte Street (MS-30)  
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## Summary

The California Department of Transportation (Caltrans) proposes to replace the Klamath River Bridge (Bridge No. 02-0015) on State Route (SR) 263 in Siskiyou County, post mile 57.1, near the community of Yreka. Two build alternatives and a no-build alternative were developed to address the purpose and need for the project.

The proposed project is a joint undertaking by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA), and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Department is the lead agency for both CEQA and NEPA. FHWA's responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (USC) 327.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, quite often a "lower level" document is prepared for NEPA. One of the most common joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

After receiving comments from the public and reviewing agencies, a Final EIR/EA will be prepared. The Department may prepare additional environmental and/or engineering studies to address comments. The Final EIR/EA will include responses to comments received on the Draft EIR/EA and will identify the preferred alternative. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and the Department will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) for compliance with NEPA. A Notice of Availability (NOA) of the FONSI will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

The Klamath River Bridge has been identified as a Section 4(f) resource. Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

1. there is no prudent and feasible alternative to using that land; and

2. the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

A Programmatic Section 4(f) eliminates the requirement for consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by Section 4(f). However, the bridge is a historic resource and coordination with the State Historic Preservation Officer is required.

The following regulatory permits and coordination will be necessary:

- California Department of Fish and Wildlife, Region 2 - Streambed Alteration Agreement pursuant to Section 1602 of the Fish and Game code.
- United States Army Corps of Engineers, San Francisco District – Department of the Army permit pursuant to Section 404 of the Clean Water Act.
- Regional Water Quality Control Board, North Coast Region - Water Quality Certification pursuant to Section 401 of the Clean Water Act.
- National Marine Fisheries – Biological Opinion on Section 7 Consultation for Threatened and Endangered Species.
- State Office of Historic Preservation - Consultation on Area of Potential Effects, Eligibility and Effects Determination, and Memorandum of Agreement, including a Historic Property Treatment Plan pursuant to Section 106 of the National Historic Preservation Act.
- National Park Service – National Wild and Scenic River concurrence

Potential impacts and avoidance, minimization, and mitigation measures are summarized in Table S-1 at the end of this section. Detailed information related to impacts and avoidance, minimization, and/or mitigation measures are provided in Chapter 2.

**Table S-1 Potential Impacts**

**Caltrans Standard Practices and Specifications, Best Management Practices, Project Permanent Design Features, and Avoidance, Minimization, and/or Mitigation Measures**

Environmental Factor (EIR/EA Section)		Potential Impacts			Caltrans Standard Practices and Specifications, Best Management Practices, and Permanent Project Design Features	Avoidance, Minimization, and Mitigation Measures
		Alternative A (Build new bridge and remove existing bridge)	Alternative B (Rehabilitate existing bridge)	Alternative C (No build)		
Land Use (2.1)	Existing and Future Land Use	2.3 acres of new right of way acquisition	None	None	None	None
	Consistency with State, Regional, and Local Plans and Programs	Consistent	Consistent	Not consistent	None	None
	Wild and Scenic Rivers	Minor impact to Outstandingly Remarkable Value (Scenery)	None	None	Preparation of a Traffic Management Plan and public outreach during construction	None
	California Streets and Highway Code 84.5- Public access to a navigable river	Not feasible	Not feasible	None	None	None
	Parks and Recreation	Minor impact to boaters during construction activities	Minor impact to boaters during construction activities	None	Preparation of a Traffic Management Plan and public outreach during construction	None
Community Impacts (2.2)	Relocations and Real Property Acquisition	1 residential acquisition	None	None	Fair market value acquisition, relocation assistance	None

Environmental Factor (EIR/EA Section)	Potential Impacts			Caltrans Standard Practices and Specifications, Best Management Practices, and Permanent Project Design Features	Avoidance, Minimization, and Mitigation Measures
	Alternative A (Build new bridge and remove existing bridge)	Alternative B (Rehabilitate existing bridge)	Alternative C (No build)		
Utilities/Emergency Services (2.3)	Temporary, negligible service interruption during construction activities; temporary delays for emergency services and transit	Implementation of full detour during construction activities, impacting emergency services and transit services	None	A Traffic Management Plan (TMP) would be prepared to address traffic management and control during construction activities. Emergency response agencies and transit services would be notified of the dates and times of any construction- related traffic restrictions.	If Alternative B were implemented, additional planning and coordination among agencies would be required to ensure that adequate emergency response time and coverage was maintained in the region during closure of the existing bridge.
Visual/Aesthetics (2.4)	Removal of vegetation and historic bridge	Removal of vegetation	None	<ul style="list-style-type: none"> <li>• Trees removed will be replaced at a ratio of 2:1</li> <li>• Open up Views: When designing planting plans for re-vegetation efforts, identify key viewing points and plant lower growing species in these areas to open views to the river and bridge.</li> <li>• Screen Access Roads: When designing planting plans for re-vegetation efforts, plant taller growing species to screen any bridge access roads.</li> <li>• Architectural treatment such as rock motif may be applied to any retaining walls or bridge abutments.</li> </ul>	None

Cultural Resources (2.5)	Significant adverse effect to a historic bridge	Significant adverse effect to a historic bridge	None	Implementation of Caltrans standard practices related to discovery of cultural resources and/or human remains	<p>The Department plans to enter into a Memorandum of Agreement (MOA) with the SHPO and ACHP, which takes into account the project's effects on the Klamath River Bridge and specifies mitigation to be completed by Caltrans.</p> <p>The proposed mitigation options include:</p> <ul style="list-style-type: none"> <li>• Preparation of a permanent record of the Klamath River Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.</li> <li>• Construction and installation of an interpretive display panel as well as the placement of a piece of the original Klamath River Bridge railing all to be located at the Randolph Collier Safety Roadside Rest Area, approximately 2 miles east of the project location. The display would include photographs and information pertaining to the historic bridge.</li> <li>• Creation and construction of a pamphlet style information booklet filled with illustrations and information on this, and other local bridges and areas of interest. The pamphlet would be made available or handed out at the Yreka Preservation Office and/or the Randolph Collier Safety</li> </ul>
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Environmental Factor (EIR/EA Section)	Potential Impacts			Caltrans Standard Practices and Specifications, Best Management Practices, and Permanent Project Design Features	Avoidance, Minimization, and Mitigation Measures
	Alternative A (Build new bridge and remove existing bridge)	Alternative B (Rehabilitate existing bridge)	Alternative C (No build)		
					Roadside Rest Area information center.
Hydrology and Floodplains (2.6)	No significant encroachment on a floodplain	No significant encroachment on a floodplain	None	None	None
Water Quality and Storm Water Runoff (2.7)	Short-term water quality impacts related to construction activities	Short-term water quality impacts related to construction activities	None	Erosion and sediment control, adherence to National Pollutant Discharge Elimination System (NPDES) permit conditions, Contractor Prepared Storm Water Pollution Prevention Plan (SWPPP)	None
Hazardous Waste and Materials (2.8)	Possible occurrence of Lead Containing Paint (LCP), Asbestos Containing Materials (ACM), and/or Treated Wood Waste (TWW)	Possible occurrence of Lead Containing Paint (LCP), Asbestos Containing Materials (ACM), and/or Treated Wood Waste (TWW)	None	<ul style="list-style-type: none"> <li>• A National Emissions Standards for Hazardous Air Pollutants (NESHAP) permit is required for demolition of the bridge and buildings on parcel PE 206020.</li> <li>• A Lead Compliance Plan will be required, but excavated earth material may be used on the project or disposed of without restriction.</li> <li>• TWW generated on the project would be disposed of at an appropriately permitted disposal facility. In addition to disposal, Caltrans would specify the manner in which TWW must be stored while awaiting disposal.</li> </ul>	None

Environmental Factor (EIR/EA Section)	Potential Impacts			Caltrans Standard Practices and Specifications, Best Management Practices, and Permanent Project Design Features	Avoidance, Minimization, and Mitigation Measures
	Alternative A (Build new bridge and remove existing bridge)	Alternative B (Rehabilitate existing bridge)	Alternative C (No build)		
Air Quality (2.9)	Temporary construction-related emissions and fugitive dust	Temporary construction-related emissions and fugitive dust	None	Best management practices; Caltrans Standard Specifications for air pollution control, dust control during construction	None
Noise (2.10)	Temporary, construction-related noise impacts	Temporary, construction-related noise impacts	None	Implementation of Caltrans Standard Specifications related to noise from construction equipment	None
Natural Communities (2.11)	Temporary and permanent impacts to riparian habitat	Temporary and permanent impacts to riparian habitat	None	<ul style="list-style-type: none"> <li>• Tree and shrub or vegetation removal will be limited to only that required to construct the project.</li> <li>• Existing riparian vegetation, adjacent to construction activities, located within the project limits would be surrounded by protective fencing during construction to prevent unnecessary removal.</li> <li>• Erosion control will be applied to disturbed areas. These areas may also be replanted, where feasible and appropriate.</li> </ul>	None

Wetlands and Other Waters (2.12)	Waters of the U.S. wetlands	None	None	None	None	None
	Waters of the U.S. "other waters"	Temporary impacts to open water habitat during construction activities; Addition of open water habitat following pier removal	Temporary impacts to open water habitat during construction activities; permanent loss of open water habitat due to enlarging pier footings	None	Work within waters of the U.S. and State would be conducted in accordance with applicable regulatory permits. Although no significant effects would occur, any loss of waters, wetlands and/or riparian vegetation, would be offset based on negotiations between Caltrans and the respective regulatory agencies	None
	Waters of the State wetlands	None	None	None	None	None
	Waters of the State "other waters"	None	None	None	None	None

<p>Animal Species (2.13)</p>	<p>Potential temporary, construction-related impacts to Foothill yellow-legged frog basking habitat, temporary and permanent impacts to nesting/roosting/foraging habitat for raptors and migratory bird species, fish, bats, northwestern pond turtle</p>	<p>Potential temporary, construction-related impacts to Foothill yellow-legged frog basking habitat, temporary and permanent impacts to nesting/roosting/foraging habitat for raptors and migratory bird species, fish, bats, northwestern pond turtle</p>	<p>None</p>	<ul style="list-style-type: none"> <li>• As Caltrans standard practice trees would be removed outside of the anticipated roosting season of special-status bats</li> <li>• Tree removal will take place between September 1 and February 15.</li> <li>• During construction, if migratory or nongame bird nests are discovered that may be adversely affected by construction activities or an injured or killed bird is found, work would stop immediately within a 100-foot radius of the discovery. A Caltrans biologist would be notified for guidance on how to proceed. Construction activities would not resume within the specified radius of discovery until authorized.</li> <li>• For Alternatives A or B, if construction or demolition operations would interfere with swallows nesting on the existing bridge, which is anticipated between February 15 and September 1, Existing swallow nests would be removed from the existing bridge prior to February 15, which is prior to the beginning of the nesting season. In addition, exclusion devices would be installed prior to the arrival cliff swallows, between September 1 and February 15.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to the start of construction, a qualified biologist would survey suitable FYLF aquatic and upland habitats, to ensure no FYLF are present. If FYLF are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.</li> <li>• The proposed measures to avoid and minimize impacts to fish are listed in the Threatened and Endangered Species Section 2.14.4.</li> <li>• The contractor would supply a qualified biologist that specializes in bats to provide guidance and direction on excluding bats that inhabit the existing structure.</li> <li>• The contractor supplied biologist would develop a plan to sequence bat exclusion, bridge construction and demolition. Bats must not be present in the existing bridge when demolition begins. The new bridge must be available to bats before the existing bridge is removed. The Contractor must submit the sequencing plan for authorization, and must not start work until the plan is authorized.</li> <li>• Bat exclusion would be performed between September 1 and March 31.</li> <li>• Prior to the start of construction, a qualified biologist would survey</li> </ul>
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					suitable NWPT aquatic and upland habitats, to ensure no NWPT are present. If turtles are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.
Threatened and Endangered Species (2.14)	Temporary impacts to open water habitat/salmonids during construction activities; Addition of open water habitat following pier removal	Temporary impacts to open water habitat/salmonids during construction activities; permanent loss of open water habitat due to enlarging pier footings	None	Implementation of Caltrans Standard Specifications related to pile driving, water quality BMPs, NPDES preparation, and SWPPP preparation	Avoidance, minimization, and mitigation measures are outlined in the Biological Assessment provided to NOAA Fisheries, and include measures related to construction access, activities, dewatering, lighting, maintenance of safe fish passage during construction, etc.
Invasive Species (2.20)	Potential impacts related to the introduction of invasive species, and subsequent impact to species that use areas	Potential impacts related to the introduction of invasive species, and subsequent impact to species that use areas	None	Standard specifications to limit spread of invasive species	None
Cumulative Impacts (2.21)	None	None	None	None	None

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## **List of Technical Studies**

- Air Quality Analysis, February 2016
- Archeological Survey Report, March 2014
- Asbestos And Lead-Containing Paint Survey Report, April 2015
- Biological Assessment, January 2016
- Geophysical Investigation, May 2015
- Historic Property Survey Report, March 2016
- Historic Resources Evaluation Report, February 2016
- Hydraulic Report, May 2015
- Initial Site Assessment (ISA), August 2011
- Supplement ISA, May 2015
- Floodplain Evaluation Report, February 2016
- Natural Environment Study, March 2016
- Noise Analysis, February 2016
- Preliminary Site Investigation, March and April 2014
- Scenic Resource Evaluation/Visual Impact Assessment, February 2016
- Water Quality Assessment Report, February 2016
- Finding of Effects, June 2016

# Chapter 1 Proposed Project

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## 1.1 Introduction

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration (FHWA), proposes to replace the Klamath River Bridge (Bridge No. 02-0015) on State Route (SR) 263 in Siskiyou County, four miles north of the Yreka city limits (**Figure 1**). The legal description of the proposed project location is Township 46 N, Range 06 W, and Section 18 according to the Hawkinsville United States Geological Survey (U.S.G.S.) 7.5 minute quadrangle (**Figure 2**).

SR 263 lies in the northern portion of Siskiyou County, running north from Yreka to its terminus at SR 96. SR 263 has a total length of 8.1 miles. It is a rural minor arterial, two-lane highway in rolling to mountainous terrain. The Klamath River Bridge is situated immediately south of the junction of SR 263 and SR 96 in a rugged mountainous area. The primary purpose of SR 263 is to provide access to area businesses and residences, and act as a connector between the City of Yreka and SR 96. It is also used during the winter season by heavy trucks to avoid adverse weather conditions on Interstate 5 (I-5) at the Anderson Grade. If a traffic incident results in the temporary closure of I-5, SR 263 may also be used as a detour route. Traffic volume data indicates that the current average annual daily traffic for the bridge is approximately 900 vehicles per day (vpd), with 38 of the vpd being comprised of truck traffic.

## 1.2 Purpose and Need

The purpose of the project is to provide a bridge that meets modern highway design standards, accommodates interregional transportation needs, reduce maintenance costs, and provides safe crossing for the traveling public.

The existing bridge was built in 1931, is over 85 years old, and is beyond its originally designed service life. Current deficiencies include the following:

- Deteriorated structural concrete and reinforcing steel throughout the bridge (**Figure 3**). This is due primarily to environmental decay, traffic loads, and general aging.
- Some large permit loads are restricted due to lane width and structural limitations for weight loading.
- Seismic vulnerability
- Scour at pier footings
- Sagging deck spans between piers
- Non-standard shoulder width
- Non-standard barrier railing for bicycle traffic and pedestrians

- Geometrics which result in a skewed intersection at the junction of SR 96.

The bridge has had a long history of maintenance repairs including problems with the structural concrete and reinforcing steel, dating back to 1951. Over the years, there have been many rehabilitation efforts including the resurfacing and replacement of unsound concrete deck elements and barrier rail.

Since 1995, concrete deterioration and spalling have progressed throughout the structure. It has been noted that the spans are sagging and the pier foundations are experiencing scour. The structure has been the subject of numerous high cost maintenance strategies and repairs, including the most recent emergency deck repair conducted in 2009. The continuing deterioration compromises the structural and seismic integrity of the bridge, which has prompted load restrictions on the structure.

In addition, the existing bridge has non-standard bridge rails, 0-4 feet of untreated roadway shoulders leading up to the bridge, 2-foot shoulders on the bridge, and inadequate turning radii at the junction of SR96 and SR263. This section of highway is part of the Federal Surface Transportation Assistance Act (STAA) of 1982 truck network, which accommodates large STAA trucks as well as legal and permit loads. Traffic making left turns to and from SR 263 have to make a sharp turn without the benefit of a left turn lane. Trucks and larger vehicle traffic have to make out-of-lane turning movements to complete turns to or from the south of SR 263, and often have to cross oncoming lanes to take refuge on the opposite shoulder in order to make a turn, thereby compromising safety. The narrow, untreated shoulders limit recovery area for errant vehicles, and do not effectively accommodate bicyclists.

### 1.3 Project Description

This section describes the proposed project and the design alternatives that were developed by a multi-disciplinary team to address the project purpose and need while minimizing impacts to the environment. The alternatives include:

- (Alternative A) entails construction of a new bridge and removal of the existing bridge.
- (Alternative B) involves seismically and structurally retrofitting and rehabilitating the existing bridge.
- (Alternative C) is the “no-build” alternative, which assumes the existing bridge would be maintained and substantial improvements would not be made.

### 1.4 Alternatives

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Alternative A proposes construction of a new bridge and removal of the existing bridge. The proposed bridge would be a concrete arch bridge with a reinforced concrete slab situated immediately west of, and parallel with, the existing bridge (**Figure 4**). The

bridge would be approximately 269 feet in length and would span the ordinary high water mark of the Klamath River. The environment would benefit from this alternative as there would no longer be any piers in the waterway. This would eliminate debris racking and scour thus improving water quality, provide additional fish spawning area and would provide for safer navigable passage. A retaining wall would be required at the north abutment due to the steep terrain on the south side of SR 96. The new bridge would be approximately 44 feet in width to accommodate two 12-foot traffic lanes and 8-foot shoulders. The bridge rail would be of sufficient height to accommodate pedestrians and bicyclists. The intersection of SR 263 and SR 96 would be widened and reconfigured to improve operations and safety. Implementation of Alternative A would require the acquisition of approximately 2.3 acres of new right-of-way as well as one single family residence. There is an aerial phone line crossing the Klamath River that would be relocated prior to construction. Alternative A satisfies the purpose and need criteria and provides a new bridge that is compatible with the historic and scenic attributes of the Klamath River highway corridor. Construction of a replacement bridge on a new alignment would simplify construction as traffic would be able to remain on the existing bridge until construction of the new bridge was completed. Removal of the existing bridge would: eliminate costs associated with rehabilitation and ongoing maintenance; reduce the safety hazards associated with routine maintenance; and most importantly, it would address the planned disposition of the existing bridge, which is becoming progressively less stable.

### **New Bridge Construction**

Typical construction equipment expected to be used if Alternative A were implemented includes dozers, loaders, graders, excavators, dump trucks, cranes, pile drivers, cement trucks, paving machines, pumps, compressors and similar bridge construction equipment.

Prior to beginning construction any conflicting overhead or underground utilities would be relocated by Siskiyou Telephone. The first order of work, once any temporary environmentally sensitive area (ESA) fencing is installed would be to clear vegetation and grade for work pads and temporary construction access roads. Temporary construction access roads would be required to access the work area below, or adjacent to, the proposed bridge and existing bridge. Access roads would most likely be located on the southwest and northwest quadrants of the proposed bridge and would generally fall within the footprint of existing dirt roads or driveways. The access roads would be graded and covered with rock to provide a stable surface for heavy construction equipment. Grading for the access roads may require grading up to 4-feet deep to push out high spots or to fill in low spots. The roads would have a width of approximately 25-feet.

Temporary work platforms (trestles) would likely be required for construction of the new bridge and removal of the existing bridge. The trestles would be elevated and supported by steel piles. It is anticipated that two trestles would be required for the construction and demolition processes. One trestle would be placed directly below, or adjacent to, the new bridge as a work platform to build and support the structure. The other trestle would be used as a work platform to remove the existing structure.

## **Demolition**

Once the new bridge is complete and traffic is shifted to the new bridge, demolition of the existing structure would begin. The contractor would construct a catchment device to prevent debris from falling into the Klamath River. The catchment device would likely consist of a wood and/or steel platform attached to the bridge piers. The contractor would utilize a pneumatic hammer attached to an excavator arm to demolish the concrete structure. Reinforcing steel would be cut with a torch or mechanical cutting implement. The deck would be removed first with the excavator working from the bridge deck. Once the deck is removed, it is likely that the excavator would operate from an adjacent temporary trestle. The in-water piers would be removed to a point just above the water level. Once the in-water piers are removed to the water line, it is anticipated that a crane operating from the bridge deck would hook onto the spread footings and what remains of the piers and lift them out of the channel. The footings would be brought to an upland area for further reduction. It is anticipated that the debris would be removed with an excavator bucket, placed in a container, and transferred to an approved staging area/temporary upland stockpile site. All debris would ultimately be either recycled or disposed of at an approved upland site.

## ***Alternative B (Rehabilitate Existing Bridge)***

Alternative B entails rehabilitation of the existing structure to repair and strengthen the bridge, increase the load bearing capacity, and most importantly provide a safe structure for maintenance employees and the travelling public. However, this alternative would not meet current design standards, would not address the skewed intersection, would only defer future replacement, cost at least as much if not more than the replacement alternative and would likely be considered a significant impact to a Historic Property.

A rehabilitation strategy would address the basic deficiencies related to the deterioration of concrete, deterioration of reinforcing steel and seismic stability issues, but would not include operational and safety improvements such as widening of the deck to attain standard shoulder width or reconfiguration of the intersection at SR 263 and SR 96.

The existing skewed supports and unbalanced mass distribution throughout the structure have created seismic vulnerabilities. In order to be considered seismically stable, an extensive combination of diaphragm restrainers, steel column and strut casings, abutment strengthening and fortification would be required.

Beginning with seismic upgrades and strengthening, the existing bridge has six piers with spread footings that would need to be exposed in order to enlarge and strengthen the footings. An access road would need to be established for each foundation location. Excavations would occur around each pier to a depth of approximately 2-5 feet deep, to expose the footings and provide room for materials and workers. The excavation would need to be shored up for safety and dewatered if ground water is encountered. Three of the six piers are within the active channel of the Klamath River. The foundations within the active channel would need to be isolated and dewatered with coffer dams. Cofferdams could temporarily add up to an additional three feet of width to each pier on each

side within the channel. Once the footings are exposed, small diameter holes would be drilled into the footings and steel dowels inserted to provide a structural connection between existing and new steel and concrete. Forms would be constructed and additional reinforcing steel would be added. Concrete would then be poured to enlarge and strengthen the footings.

To rectify the existing foundation scour problem and to protect the enlarged footings, it would be necessary to place large rock slope protection (RSP) at the base of the piers within the channel of the Klamath River. This action would be the most environmentally intrusive alternative. See (Table 1.1-1) for additional detail on project alternative impacts.

Similar seismic upgrades and strengthening work may be necessary on the abutment foundations and piers. In areas where spalling and cracking is a problem, the unsound concrete would need to be removed from the structure and replaced. All debris would be captured and disposed of at an appropriate disposal location. Once all unsound concrete is removed, the reinforcing steel would be cleaned with a blasting medium. Any damaged steel would need to be replaced. The amount of unsound concrete and damaged steel could vary widely because the extent of deterioration would not be determined until repair work has commenced. Forms would then be erected and new concrete would be poured. Forms and temporary work platform would likely require additional support piles to be placed within the active channel.

The anticipated construction equipment required for such a job would be excavators, cranes, pile drivers, concrete trucks, front-end loaders, dump trucks, pavers, and various other types of equipment including compressors and other small equipment.

### ***Alternative C (No-Build)***

The “No-Build” alternative assumes that the existing bridge would be maintained and substantial improvements would not be made. The structural integrity of the bridge would continue to deteriorate over time and permit loads would continue to be limited due to the width and weight capacity of the bridge. Structure maintenance costs would increase and the safety of maintenance workers and traveling public would be compromised, due to the narrow width of the bridge deck and the inherent risks to personnel associated with maintaining this type of structure. The structural integrity of the bridge would continue to decline, and rehabilitation or replacement would have to be addressed in the future.

After comparing and weighing the benefits and impacts of all feasible alternatives, Caltrans has identified Alternative A as the preferred alternative, subject to public review. Final identification of a preferred alternative will occur after the public review and comment period. The following Table 1.1-1 identifies some of the potential impacts and estimated construction costs for the respective alternatives. Impacts are discussed in detail throughout Chapter 2.

## **1.5 Alternatives Considered But Eliminated From Further Discussion Prior to Draft Environmental Document**

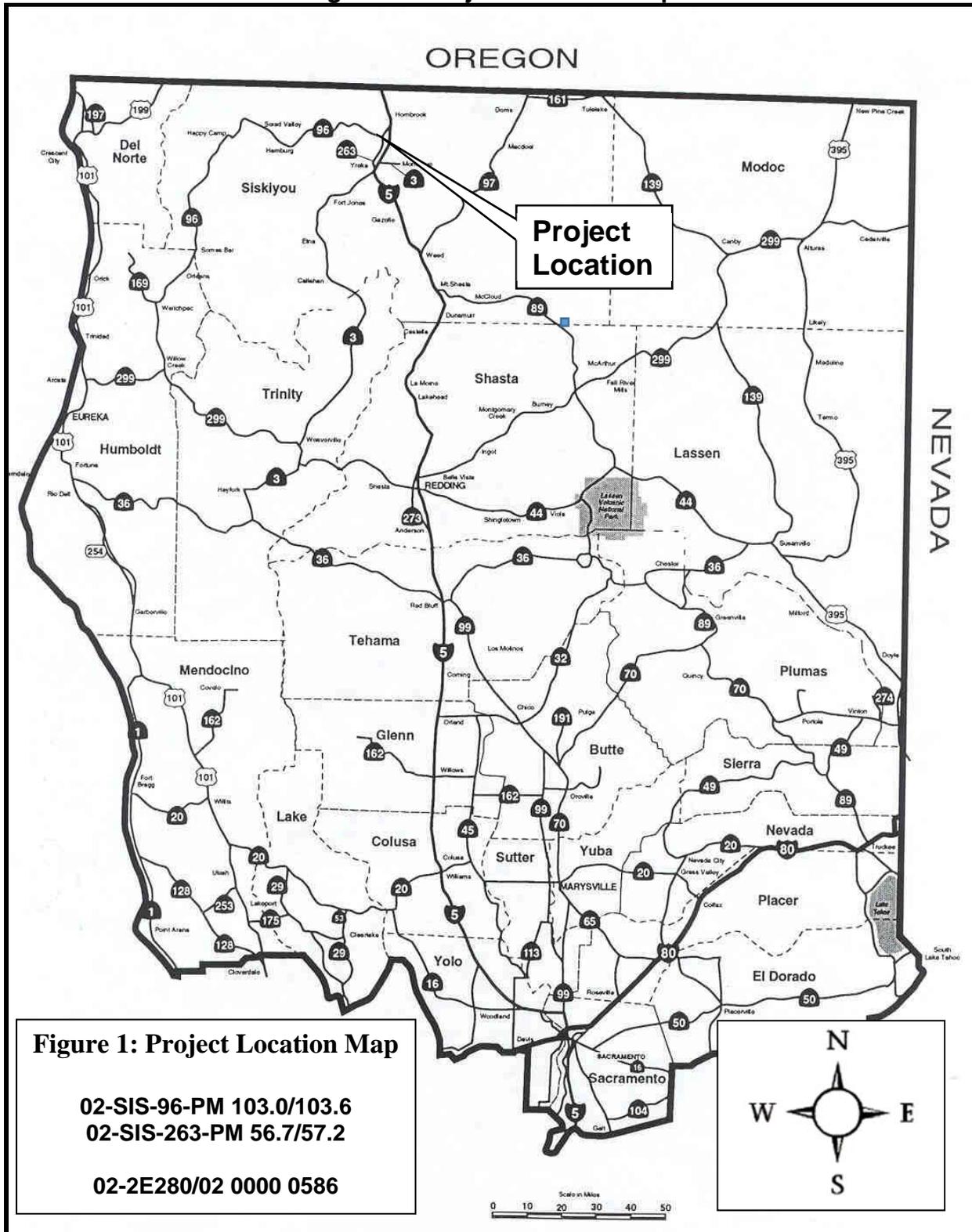
The 2011 Project Scope Summary Report (PSSR) along with the Supplemental PSSR completed in June 2016 for the Klamath River Bridge replacement project included five project alternatives: A) replace the bridge using a new alignment that also improved geometrics at the intersection, B) rehabilitate the current bridge in place, C) No-Build, D) replace the bridge on its current alignment, and E) replace the bridge shifting the alignment at north end of the bridge only.

After consideration, Alternatives D and E were eliminated from further discussion in this document as they did not meet the reasonable and prudent standard. Alternative D was eliminated because the proposed bridge would be 40-feet longer than Alternative A, more costly than Alternative A, and would require a significant detour during construction. Alternative E was eliminated because the new structure would be 168-feet longer than Alternative A, more costly than Alternative A, require a significant detour and geometric limitations at the intersection would remain unchanged.

**Table 1.1-1 Project Alternative Comparison**

	<b>Alternative A</b> (Construct new bridge and remove existing bridge)	<b>Alternative B</b> (Rehabilitate and seismically retrofit existing bridge)	<b>Alternative C</b> (No-build)
Satisfy purpose and need	Yes – meets all current design standards, remedies safety concerns, and provides structure with a 100-year service life	No – would not address inadequate shoulder widths, skewed intersection, and only defers bridge replacement	No –existing deficiencies would remain and bridge would eventually require full replacement or rehabilitation
Estimated construction costs (\$millions)	\$14.2	\$14.9 – there is a potential for the cost of this alternative to increase significantly due to the unknown severity of the structure decay	None initially – ongoing maintenance costs would be high and the bridge would eventually require full replacement or rehabilitation
Impact to emergency and transit services	Minimal impact – the current bridge would remain open to traffic during new bridge construction. Traffic would be moved to the new bridge once complete, and only occasional temporary traffic slowing would occur	Substantial impact – a full detour for approximately one year would be required due to the intensive structural work that would be required. Emergency, transit services, and local residents would have a substantial detour if required to use Interstate 5 as an alternate route	No immediate impact – however, the bridge would eventually require full replacement or rehabilitation
Correct intersection geometrics, improve sight distance, improve traffic merging and safety concerns at junction of SR 263/SR 96	Yes – the new bridge would intersect SR 96 at 90 degrees providing improved sight distance and turning radii, which would increase intersection safety	No – bridge rehabilitation would not correct the intersection geometrics, improve sight distance, and would not improve traffic merging	No – the no build alternative would not correct the intersection geometrics, improve sight distance, or improve traffic merging
Impact to bats	Minimal impact – direct impacts would be temporary and short in duration, as new roosting habitat has been incorporated into the new bridge design. The new bridge would provide approximately 71 cubic feet of net new roosting habitat	Potential substantial impacts – greater direct impact to bats, due to the increased noise and vibration that would be generated directly to the structure. Bats would have less time to acclimate and may abandon their roost sites. Bats would have to travel to new locations during exclusion for construction	No immediate impact –the bridge would eventually require full replacement or rehabilitation
Impact to fish and the threatened and endangered Coho salmon	Minimal impact – temporary trestle installation work would be confined to two summer months when salmon and other fish aren't typically present, keeping impacts to threatened and endangered Coho salmon to a minimum. The new bridge would be clear span outside the flowing channel. Existing piers would be removed from the channel providing additional spawning habitat and benefiting water quality overall	Potential for the following substantial impacts to fish and Coho salmon: -need for large RSP to be placed in-channel around piers -increased duration of in-water work -increase in water velocity -temporary increase in sediment flume -increase in debris racking -increase in scouring -increased impact to riverbed -temporary decreased width of river -decreased spawning area	No immediate impact –the bridge would eventually require full replacement or rehabilitation
Adverse impact to a historic resource	Yes – removal of the existing bridge would be an adverse impact to a historic resource	There is potential to affect the historic integrity of the bridge with a rehabilitation effort	No immediate impact –the bridge would eventually require full replacement or rehabilitation

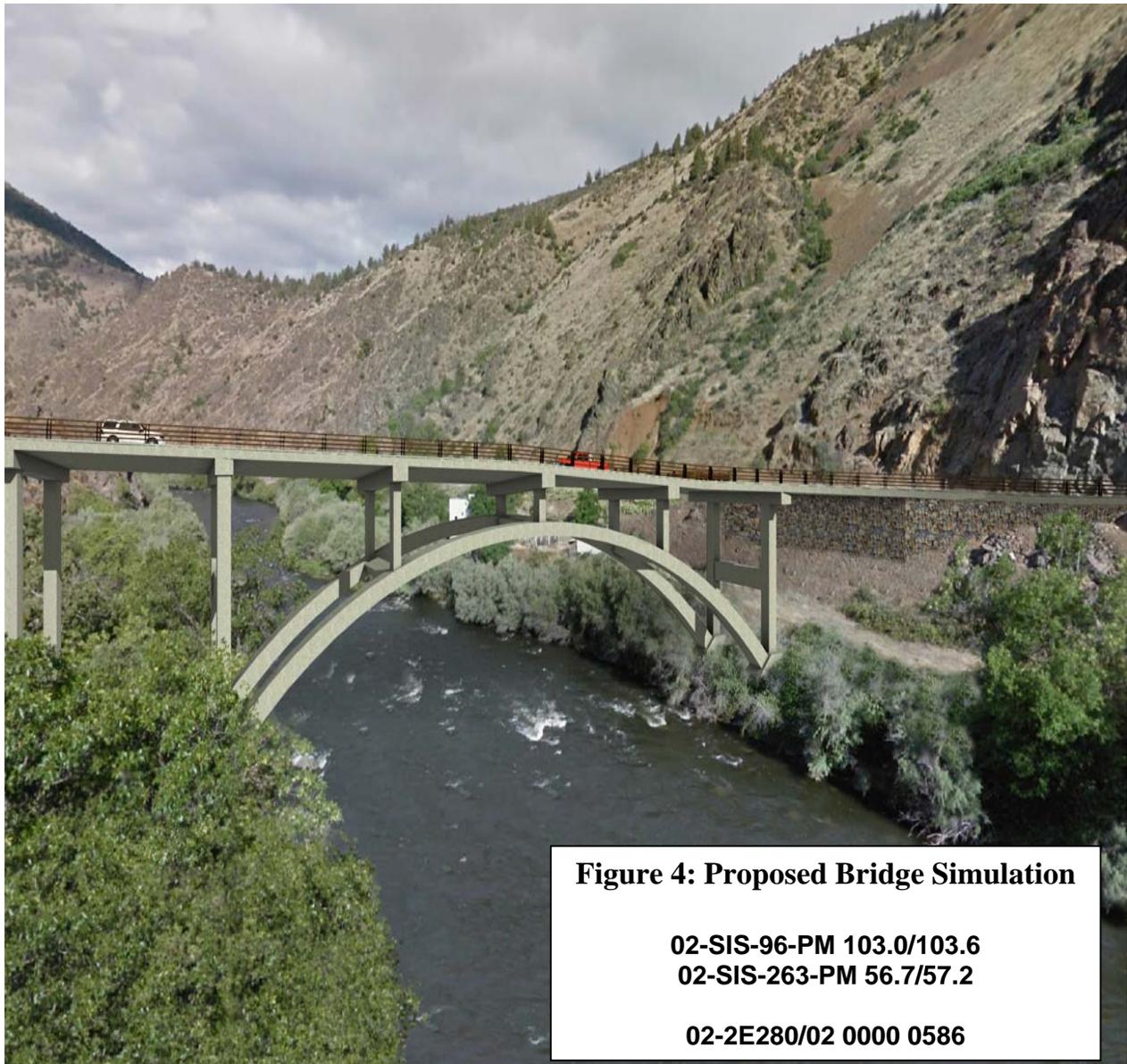
**Figure 1: Project Location Map**







**Figure 3: Deteriorated Concrete and Steel On Current Bridge**



**Figure 4: Proposed Bridge (Alternative A) Simulation**

## 1.6 Permits and Approvals

- California Department of Fish and Wildlife, Region 2 - Streambed Alteration Agreement pursuant to Section 1602 of the Fish and Wildlife code.
- United States Army Corps of Engineers, San Francisco District – Department of the Army permit pursuant to Section 404 of the Clean Water Act.
- Regional Water Quality Control Board, North Coast Region - Water Quality Certification pursuant to Section 401 of the Clean Water Act.
- National Marine Fisheries Service – Biological Opinion on Section 7 Consultation for Threatened and Endangered Species.
- State Office of Historic Preservation - Consultation regarding National Register eligibility, Finding of Effects, and a Memorandum of Agreement (MOA) for mitigation of adverse effects.
- National Park Service – National Wild and Scenic River concurrence.

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

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This chapter addresses the environmental impacts of the proposed project as well as identified avoidance, minimization, and mitigation measures that would be carried out as part of the project. Avoidance, minimization, and/or mitigation measures are discussed for each of the environmental factors covered in the following subsections.

As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered but no impacts were identified or not considered to be relevant. As a result, there is no further discussion about these issues in this document.

**Coastal Zone:** This project does not take place in a coastal zone.

**Community Cohesion:** Based on the nature of the project, there would be no impact to health, safety or crime as a result of the proposed project. Public service would not become disrupted as a result of the proposed project. Community character would not be changed and property values and/or quality of life would not deteriorate as a result of the proposed project.

**Environmental Justice:** No minority or low-income populations would be impacted as a result of the proposed project.

**Energy:** When balancing energy used during construction and operation against energy saved by relieving congestion and other transportation efficiencies, the proposed project would result in no net energy impacts.

**Farmland:** There is no farmland including prime farmland, unique farmland, or land of statewide or local importance within the project area. No land held by a Williamson Act contract is in the project area. The proposed project would have no impact related to farmlands.

**Growth:** The proposed project will not increase capacity and would not involve any change in land use or induce growth.

**Paleontology:** Based on geological history, paleontological resources are unlikely to be encountered in this area. The proposed project would have no impact to paleontological resources.

Geology, Soils, Seismicity and Topography: No project impacts are anticipated related to geology, soils, seismicity or topography. Due to the soil types in the area, the potential for liquefaction in the project area is low to moderate. There are no major topographic or geologic hazards within the project area.

Traffic, Pedestrian and Bicycle Facilities – The proposed project consists of constructing a new bridge parallel to the existing structure and will not increase the capacity or require a detour; and will not affect current traffic, pedestrian, or bicycle facilities. However, implementation of Alternative A would provide a new bridge with standard shoulder width, appropriate bridge railing, and improved geometrics, which would improve safety and operations for bicyclists and pedestrians as well as motorists.

Plant Species – Surveys were conducted and no federal or state threatened, endangered, candidate, or proposed plant species were determined to have the potential to occur within the project limits.

Mineral Resources – The project would not impact mineral resources because there are no known resources in the area and none are delineated on a local general plan, specific plan, or other land use plan.

Population and Housing – The project would have no impact on population or housing and would not induce growth.

## **Human Environment**

### **2.1 Land Use**

#### **2.1.1 Existing and Future Land Use**

##### ***Affected Environment***

SR 263 in the project vicinity is a two-lane conventional highway. Its primary purpose is to provide access to businesses and residences, as well as act as a connector route to SR 96. Land use in the project vicinity is primarily rural, characterized by large parcels of rangeland in the upland areas, coupled with scattered, small clusters of homes upstream along the river corridor. The Siskiyou County General Plan land use designation for this area is “Non-Prime Agricultural District” (Ag2). One single family residence is located within the project limits, approximately 500-feet northwest of the existing Klamath River Bridge. No development has occurred in the project vicinity in recent years and significant restraints to development along the route include the designation of the area as an agricultural preserve zone, presence of federally-owned public lands, topography constraints, and Bureau of Land Management interest in preserving surrounding lands based on the presence of cultural resources.

## Environmental Consequences

### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Implementation of Alternative A would place a new bridge immediately west of the existing bridge, and would include reconfiguration of the SR 263 and SR 96 intersection. A total of approximately 2.30 acres of new highway right-of-way would be required, comprised of both private property, as well as some Bureau of Land Management property. Implementation of Alternative A would result in the displacement of one residence within the project area; however, this displacement would not result in a significant change to existing and future land uses. Housing in the project vicinity is currently scattered, and implementation of the proposed project would not change this pattern or the land use designation of the proposed project vicinity.

### ***Alternative B (Rehabilitate Existing Bridge)***

Implementation of Alternative B would have no impact to existing and future land uses.

### ***Alternative C (No-Build)***

Implementation of Alternative C would have no impact to existing and future land uses.

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

With the exception of the need to acquire one residence, the proposed project would have no impact related to existing and future land use; no avoidance, minimization, and/or mitigation measures are proposed.

### **2.1.2 Consistency with State, Regional, and Local Plans and Programs**

Several state, regional, and local plans and programs are applicable to the proposed project, including the following:

- 2004 Transportation Concept Report for State Route 263 prepared by Caltrans in conjunction with the Siskiyou County Regional Transportation Plan
- Siskiyou County General Plan
- City of Yreka General Plan
- Previously-prepared route concept reports.

The proposed project is consistent with the above-listed plans. Analysis related to Wild and Scenic Rivers is included below.

### ***Wild and Scenic Rivers***

#### ***Regulatory Setting***

##### ***National Wild and Scenic Rivers Act and California Wild and Scenic Rivers Act.***

Projects affecting Wild and Scenic Rivers are subject to the National Wild and Scenic Rivers Act (16 United States Code (USC) 1271) and the California Wild and Scenic Rivers Act (CA Public Resources Code [PRC] Section 5093.50 et seq.). The intent of the National Wild and Scenic Rivers Act and the California Wild and Scenic Rivers Act

is to “preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations.” There are three possible Wild and Scenic Designations:

- Wild: undeveloped, with river access by trail only
- Scenic: undeveloped, with occasional river access by road.
- Recreational: some development is allowed, with road access.

In order to be considered for designation as a Wild and Scenic River, a river must meet eligibility criteria, called Outstandingly Remarkable Values (ORVs) related to scenery, recreation, geology, fish, wildlife, prehistory, history, cultural, and other values.

The Wild and Scenic Rivers Act includes Section 7, which prohibits federal agencies from “assisting by loan grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established.” The National Park Service considers water resources projects to include projects involving construction in the bed or on the banks of the river.

*California Streets and Highways Code 84.5.* *California Streets and Highways Code 84.5* requires the review of the feasibility of incorporating a river access point for public recreation purposes when a new bridge is constructed across a navigable river.

*Streets and Highway Code 84.5 states:* “During the design hearing process relating to state highway projects that include the construction by the department of a new bridge across a navigable river, there shall be included full consideration of, and a report on, the feasibility of providing a means of public access to the navigable river for public recreational purposes”.

### ***Affected Environment***

As Route 263 approaches the Klamath River Bridge from the south, the river banks are steep and over grown with brush. Route 263 ends approximately 50 feet past the Klamath River Bridge, where it intersects with Route 96. Route 96 parallels the Klamath River in this area and is the main corridor for people living along the Klamath River.

The Klamath River was designated a Recreational River within the National Wild & Scenic Rivers System in 1981. Public access to the Klamath River, which accommodates recreational boaters, fishermen and their vehicles, exists adjacent to the Collier Safety Roadside Rest Area, located approximately 2.2 miles upstream from the project area at the junction of Route 96 and Interstate 5. Another existing recreational river access point is located approximately one mile downstream from the project area, and provides off-road parking for vehicles and access to the Klamath River. Access to the Klamath River at the existing Klamath River Bridge is limited due to steep terrain and the presence of private residences, lack of safe parking, and there is no evidence of current public access.

## **Environmental Consequences**

### *National Wild and Scenic Rivers Act and California Wild and Scenic Rivers Act*

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Alternative A includes removal of the existing reinforced concrete Klamath River Bridge and replacement with a new, modern architectural structure. The Scenery ORV includes the “landscape elements of landform, vegetation, water, color and related factors that result in notable or exemplary visual features and/or attractions. When analyzing scenic values, additional factors, such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed, may be considered. Scenery and visual attractions may be highly diverse over the majority of the river or river segment.” Based on the above description of the Scenery ORV, implementation of Alternative A would not impact the Wild and Scenic River qualities of the Klamath River. The scale of “cultural modifications” with regard to the Scenery ORV would be minor and there would be no adverse impact. The National Park Service has concurred with this evaluation, and determined that the proposed project (Alternative A) would have “no significant long-term impacts on the Klamath [River’s] designation [as a Wild and Scenic River], or it’s ORVs” (letter from National Park Service to Caltrans, December 8, 2015). Consultation with the California Resources Agency with regard to the California Wild and Scenic Rivers Act would occur during the California Department of Fish and Wildlife 1600 permit application process.

#### ***Alternative B (Rehabilitate Existing Bridge)***

Alternative B includes rehabilitation of the current structure in place and would have no impact related to a Wild and Scenic River.

#### ***Alternative C (No-Build)***

Implementation of Alternative C would have no impact related to a Wild and Scenic River.

### *California Streets and Highways Code 84.5*

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Pursuant to California Streets and Highways Code Section 84.5, the Caltrans project development team (PDT) examined the feasibility of incorporating a river access point for public recreation at or near the proposed new bridge site (Alternative A) (Caltrans, Feasibility Report - Public Access to Navigable River, March 4, 2016). As the Klamath River is designated as a Wild and Scenic River under the Recreational criteria, some development is allowed, with road access. However, private residential properties along the Route 96 side of the Klamath River would need to be taken into consideration in order to provide access near the Alternative A project site. In addition, while public access could be possible, the banks of the Klamath River in this area are steep, approximately 40 feet from the roadway and difficult to traverse, making safe pedestrian and vehicle access infeasible.

Based on the factors and limitations described above, creation of a public recreation access at the proposed Klamath River Bridge location (Alternative A) was determined to be infeasible for the following reasons:

- Thick vegetation (sensitive riparian habitat) on the Klamath River banks in the project vicinity.
- Steep banks of Klamath River in the project vicinity.
- Elevation difference between the proposed Klamath River Bridge and Klamath River.
- Presence of private properties along Klamath River banks, limiting public access opportunities.
- Lack of area parking within the immediate area.
- Availability of existing public access points located in close proximity both upstream and downstream of proposed project.

***Alternative B (Rehabilitate Existing Bridge)***

Implementation of Alternative B would have no impact related to California Streets and Highways Code 84.5 as it only pertains to construction of “new” bridges over navigable waters.

***Alternative C (No-Build)***

Implementation of Alternative C would have no impact related to California Streets and Highways Code 84.5 and/or public access to a navigable river.

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

The proposed project would not have an adverse effect with regard to a Wild and Scenic River and/or public access to a navigable river and therefore no avoidance, minimization or mitigation measures are proposed. A standard Caltrans Traffic Management Plan, and public outreach during construction, would provide information related to river access and conditions during construction.

**2.1.3 Parks and Recreational Features**

***Regulatory Setting***

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as

determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed. In addition, designation of a river as Wild and Scenic does not in itself invoke Section 4(f) in the absence of significant Section 4(f) attributes and qualities. Publicly-owned public parks, recreation areas, refuges, and historic sites within a Wild and Scenic corridor are subject to Section 4(f).

See Appendix B of this document for specific information with regard to Section 4(f).

### ***Affected Environment***

The Klamath River is used for recreational purposes, including boating, fishing, and general public use. A public access point to the Klamath River, accommodating recreational boaters, fishermen and their vehicles, exists at the Collier Roadside Safety Rest Area, located approximately 2.2 miles upstream from the project area. Another existing recreational river access point is located approximately one mile downstream from the project area, and provides off-road parking for vehicles and access to the Klamath River. Access to the Klamath River at the existing Klamath River Bridge is limited due to steep terrain and the presence of private residences, and there is no evidence of current public access at the proposed new location for Alternative A.

### ***Environmental Consequences***

#### ***Alternative A (Build New Bridge and Remove Existing Bridge) and Alternative B (Rehabilitate Existing Bridge)***

Temporary work platforms (trestles) would be required for construction of the new bridge and removal of the existing bridge (Alternative A), as well as for rehabilitation of the existing bridge (Alternative B). The trestles would be elevated and supported on temporary piles to maintain water flows. Two trestles would likely be used in the construction of Alternative A, one trestle would likely be used for construction of Alternative B. For Alternative A, one trestle would be placed directly below or adjacent to the new bridge as a work platform to build and support the structure; the other trestle would be used as a work platform to remove the existing structure. The Klamath River would continue to be passable to boaters in the vicinity of Alternative A or B during construction activities.

### ***Alternative C (No-Build)***

Implementation of Alternative C would have no impact related to parks and recreational features.

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

There would be no adverse effects related to recreation on the Klamath River therefore, no avoidance, minimization or mitigation measures are proposed. As standard practice, signs would be placed on the Klamath River upstream and downstream of the project area informing boaters of any conditions related to river use during the construction period. Public outreach would be conducted prior to and during construction to advise the public, including recreational river users, of any conditions affecting highway traffic or river use in the vicinity of the bridge during construction. Public outreach may consist of one or a combination of news releases, information posted at river access locations, or information posted on river managing agency websites.

## **2.2 Community Impacts**

### **2.2.1 Relocations and Real Property Acquisition**

#### ***Regulatory Setting***

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

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

#### ***Affected Environment***

Land use in the project vicinity is primarily rural, characterized by large parcels of rangeland in the upland areas, coupled with scattered, small clusters of homes upstream along the river corridor. The Siskiyou County General Plan land use designation for this area is "Non-Prime Agricultural District" (Ag2). One single family residence is located within the project limits, approximately 500-feet northwest of the existing Klamath River Bridge.

#### ***Environmental Consequences***

##### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Alternative A would result in the displacement of one residence within the project area.

### ***Alternatives B and C (Rehabilitate Existing Bridge and No-Build)***

The Rehabilitate Existing Bridge and No-Build Alternatives would not result in the displacement of the one residence in the project area. Implementation of Alternatives B or C would have no impact related to relocations and real property acquisitions.

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

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees would be entitled to moving expenses. All benefits and services would be provided equitably to all residential and business relocatees without regard to race, color, religion, age, national origins, or disability, as specified under Title VI of the Civil Rights Act of 1964 (Appendix D).

## **2.3 Utilities/Emergency Services**

### ***Affected Environment***

#### ***Utilities***

A Siskiyou Telephone aerial line runs parallel to the existing structure on the west side, crossing the Klamath River within the project limits.

#### ***Emergency Services***

Law enforcement, fire, medical, other emergency services as well as other transit services utilize this route and crossing, depending on the proximity of incident location or transit destination.

### ***Environmental Consequences***

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

##### **Utilities**

Alternative A would result in a slight westerly shift in the highway alignment to conform to the new bridge alignment. The three telephone poles currently situated to the west of the existing structure would be relocated to accommodate the shift in highway alignment and placement of the new bridge. Relocation of utilities may result in a short-term, temporary service interruption, such interruptions would be negligible.

##### **Emergency Services**

Emergency and transit service vehicles may also experience minor temporary delays due to traffic control during construction of the proposed project. Caltrans would notify and coordinate with local emergency and transit authorities to ensure proper function of services. Traffic would continue to utilize the existing bridge during construction, therefore, traffic delays would be minor and are not anticipated to result in a substantial inconvenience to emergency and transit service users.

## **Alternative B (Rehabilitate Existing Bridge)**

### Emergency Services

Although the rehabilitation alternative would not affect existing utilities, it would adversely impact emergency and transit services based on the need for a full detour during rehabilitation work. A full detour is estimated to last approximately one year and would require all vehicles to use Interstate 5 as the alternate route. Emergency response and transit delivery times to some remote areas would increase substantially.

### **Alternative C (No-Build)**

The No-Build Alternative would not modify the Klamath River Bridge or SR 263; therefore, there would be no impacts to utilities or emergency services.

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

Although there would be minor delays and short service interruptions, no avoidance, minimization or mitigation measures are proposed.

- As standard practice, any required utility relocation would be coordinated with, and performed by, Siskiyou Telephone prior to the beginning of bridge construction.
- For Alternative A, a Traffic Management Plan (TMP) would be prepared to address traffic management and control during construction activities. Emergency response agencies and transit services would be notified of the dates and times of any construction-related traffic restrictions. Provisions would be included to ensure that emergency access and passage is unimpeded. If Alternative B were implemented, additional planning and coordination among agencies would be required to ensure that adequate emergency response time and coverage was maintained in the region during closure of the existing bridge.

## **2.4 Visual/Aesthetics**

### **Regulatory Setting**

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

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

### ***Affected Environment***

The landscape at this location is characterized by sparse barren vegetation over rugged, steep, and rolling rocky slopes falling to a river canyon below where riparian vegetation consisting of Alder, White Oak, and Big leaf Maple, and other species exist.

The land use within the corridor is primarily rural-characterized by large parcels of rangeland in the upland areas, coupled with scattered small clusters of homes upstream along the river corridor and one single family residence within the project limits located approximately 500 feet northwest of the current structure. The land use designation—is Ag2 (Non-Prime Agricultural District).

A visual impact analysis was conducted to assess the visual quality of the existing landscape and estimate the potential impacts to existing views from the project. The methods used to evaluate visual impacts were based on the *Visual Impact Assessment for Highway Projects* guidelines (FHWA 1983). With this methodology, the visual environment was assessed for views from sensitive receptors that would be representative of the range of views of SR 263. Photographs were taken of representative views along the proposed project corridor, and visual simulations were prepared to give examples of potential visual impacts that would result from the proposed project.

### ***Environmental Consequences***

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

The proposed bridge type for the build Alternative A is a concrete arch bridge with a reinforced concrete slab. This type of bridge is reminiscent of early bridges in the region and is a structure that fits the scenic character of the Klamath River highway corridor. A retaining wall would be required at the north bridge abutment due to the steep terrain. An architectural treatment, such as a rock motif, may be applied to the face of the retaining wall and/or bridge abutments. Implementation of the build Alternative A would result in soil disturbance of approximately 1-acre and the removal of approximately 59 trees to accommodate temporary staging areas, access roads, and realignment of the highway. If Alternative A is selected, the historic bridge will be removed.

#### ***Alternative B (Rehabilitate Existing Bridge)***

Alternative B would result in soil disturbance of approximately one acre and the removal of approximately 75 trees to accommodate temporary staging areas and access roads. Each pier would be enlarged in-place adding a total of approximately six feet in length and the current historic bridge would not be removed.

#### ***Alternative C (No-Build)***

Alternative C would have no construction or temporary impacts on the bridge and would not visually impact the project area.

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

The project would not result in adverse visual impacts and therefore no avoidance, minimization or mitigation measures are proposed. The following standard design measures would be included in the project, if practicable, to maintain the area's current visual aspects:

- Trees removed will be replaced at a ratio of 2:1
- Open up Views: When designing planting plans for re-vegetation efforts, identify key viewing points and plant lower growing species in these areas to open views to the river and bridge.
- Screen Access Roads: When designing planting plans for re-vegetation efforts, plant taller growing species to screen any bridge access roads.
- Architectural treatment such as rock motif may be applied to any retaining walls or bridge abutments of new bridge.

## **2.5 Cultural Resources**

### ***Regulatory Setting***

The term “cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for 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 the NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP on Historic Preservation (36 Code of Federal Regulations [CFR] 800).

On January 1, 2004, a Section 106 Programmatic Agreement (106 PA) between the ACHP, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the “use” of land from historic properties. See Appendix B of this document for specific information regarding Section 4(f).

Historical resources are considered under the CEQA, as well as California Public Resources Code (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 National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks. Caltrans’ procedures under Section 5024 are stipulated within the *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code 5024 and Governor’s Executive Order W-26-92* (PRC 5024 MOU), which was executed on December 22, 2014, and came into effect on January 1, 2015. This MOU brings Section 5024 compliance into conformity with the Section 106 PA to simplify Caltrans processes and provide additional streamlining.

## ***Affected Environment***

### ***Study Area***

The study area for cultural resources is identified as the Area of Potential Effects (APE). As defined in 36 CFR § 800.16(d), an APE is “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.”

The APE established for the proposed project included a short section of SR 263 and SR 96, encompassing the maximum limits of potential direct and indirect effects associated with the proposed project alternatives.

The APE includes parcels containing buildings, structures, and/or objects which may warrant consideration under state and/or federal laws and have the potential to be either directly or indirectly affected by the proposed project.

### ***Cultural Resource Investigation and Documentation***

Field surveys have been conducted to locate and document previously recorded and newly identified cultural resources. Field methods involved surveyors who inspected the ground surface while walking a series of linear transects. Surveys also included the assessment of built environment resources, where the properties requiring formal evaluation were photographed and the physical appearance documented.

Throughout the life of the project multiple documents (Table 2.8-1) have been prepared in order to report the evaluation of cultural resources and ongoing consultation efforts.

**Table 2.8-1 Cultural Resource Documentation**

Documentation	Date
Historic Property Survey Report (HPSR), Archaeological Survey Report (ASR), & Historical Resource Evaluation Report (HRER)	March 2016
Draft Finding of Effect (FOE) with a finding of <i>Adverse Effect</i>	June 2016
MOU	TBD

**Built Environment Findings**

Not including the bridge itself, two additional properties identified within the APE were evaluated for potential historical significance. A former service station that was converted into a residence and a duplex residence. Neither property was determined to be historic.

The Klamath River Bridge was determined the sole historic property located within the APE. The structure was previously determined eligible for listing in the NRHP as a result of the Caltrans Historic Bridge Inventory Update conducted in 2004. The structure is also listed in the CRHR, based on the formal determination of eligibility to be listed the NRHP. The original evaluation did not provide the boundaries of the historic property or its character-defining features. The following is a summary of significance criteria, integrity, level and period of significance with clarification of the character-defining features and physical boundaries.

The Klamath River Bridge is eligible under NRHP Criterion A and CRHR Criterion 1 as a significant component in the development of what was one of the state’s most important transportation corridors from the 1930s until the completion of I-5 more than 40 years later. The Shasta River Canyon portion of US 99 (now SR 263), completed in 1931, was a significant improvement of the main highway connection between northern California and Oregon, built in response to the growing volume of both automobile travel and the long-distance shipment of goods by truck.

The bridge is also eligible under NRHP Criterion C and CRHR Criterion 3 as a distinctive example of its type and period. When completed in 1931, the bridge’s 80-foot spans were among the longest spans constructed using T-beams up to this point, and the bridge was also among the highest examples of its type, with the roadway approximately 60 feet above the river. The bridge was a significant engineering accomplishment for its time, particularly considering its relatively isolated location and the difficulty of constructing extensive formwork high above the river. It is one of the state’s most impressive T-beam bridges. Under these criteria, the bridge is significant at the state level and the period of significance is 1931.

In 2004, it was noted that the bridge’s integrity of design and materials has been diminished somewhat because of the replacement of the original railings, but that the structure retains sufficient integrity to be eligible for the NRHP. The bridge currently retains the same level of historic integrity, which is sufficient to continue to convey the structure’s significance.

The Klamath River Bridge's character-defining features are its original components, including the structure's board-form concrete, the taper ended T-beam girders, square-column towers with cross beams, round-nosed pier walls, and cantilever railing supports with brackets. The extant Jersey-type barrier railings are not character defining. While not noted in previous documentation on the bridge, the skewed alignment and curve of the bridge over the Klamath River is also a character defining. Modern bridge construction and materials allowed for automobile traffic to continue at a rate of speed along the route regardless of the distance spanned, compared to the previous 1914-built Klamath River bridge, which was constructed across the shortest distance across and perpendicular to the river that required reducing the rate of speed to then continue on the route. The boundaries of this historic property include the bridge from its approach at the south end on SR 263, to its approach at the north end, at the intersection of SR 96.

#### Archeological Resource Findings

No archeological resources were identified within the projects APE.

### **Environmental Consequences**

#### **Alternative A (Build New Bridge and Remove Existing Bridge)**

Under Alternative A, a new bridge would be constructed immediately west of, and parallel to, the existing structure. The existing bridge would remain in place and in use until the new bridge is completed, at which time the historic bridge would be disassembled, and the piers and approaches demolished. Alternative A would remove the historic bridge from this location entirely, which constitutes a "use" of the historic bridge under the terms of the Programmatic Section 4(f) and a significant adverse effect under Section 106.

#### **Alternative B (Rehabilitate Existing Bridge)**

Alternative B proposes seismically retrofitting and rehabilitating the existing bridge. Rehabilitation of the existing bridge would require enlarging and strengthening footings and piers, adding steel columns, strut casings, diaphragm restrainers, replacing unsound concrete and the installation of standard barrier railing. The extensive bridge modification required for this alternative would potentially impair the historic integrity of the bridge, which constitutes a "use" of the historic bridge under the terms of the Programmatic Section 4(f) and a significant adverse effect under Section 106.

#### **Alternative C (No-Build)**

Under Alternative C, the existing Klamath River Bridge would be maintained without substantial structural changes or improvements. The uses and functions of the existing Klamath River Bridge No. 02-0015 would remain in the present condition. Under this alternative there would be no impacts to the Section 4(f) Bridge; therefore, the No Build alternative does not constitute a "use" under Section 4(f) or a significant adverse effect under Section 106.

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

Avoidance of adverse effects upon historical resources relative to the proposed project is attainable only with Alternative C, the No-Build alternative. Over time, deterioration would have detrimental effects upon the bridge and it would eventually need to be replaced, adversely impacting the historic bridge.

Caltrans has prepared a Finding of Effects (FOE), which is a determination that the project, with implementation of Alternative A (build new bridge and remove existing bridge), would result in an adverse effect to a historic property, the Klamath River Bridge. Caltrans plans to enter into a Memorandum of Agreement (MOA) with the SHPO and ACHP, which takes into account the project's effects on the Klamath River Bridge and specifies the required mitigation.

The proposed mitigation options include:

- Preparation of a permanent record of the Klamath River Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.
- Construction and installation of an interpretive display panel as well as the placement of a piece of the original Klamath River Bridge railing all to be located at the Randolph Collier Safety Roadside Rest Area, approximately 2 miles east of the project location. The display would include photographs and information pertaining to the historic bridge.
- Creation and construction of a pamphlet style information booklet filled with illustrations and information on this, and other local bridges and areas of interest. The pamphlet would be made available or handed out at the Yreka Preservation Office and/or the Randolph Collier Safety Roadside Rest Area information center.

Based on current consultation efforts with the SHPO and other parties, the Department anticipates receiving a letter of concurrence on the FOE, and approval of the MOA.

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land from historic properties. See Appendix B for specific information about Section 4(f).

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). If human remains are

discovered, the person making the discovery would contact Mr. Chris Quiney, District 2 Environmental Branch Chief, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

## **Physical Environment**

### **2.6 Hydrology and Floodplain**

#### ***Regulatory Setting***

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.” The Federal Highway Administration (FHWA) requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

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

#### ***Affected Environment***

The project location sits within the Lower Klamath River Basin. The Basin originates in the State of Oregon at the Link River Dam, which is the head of the Klamath River. The basin elevations range from sea level to about 9,000 feet in the Klamath National Forest. Peak river flows generally occur during the snowmelt runoff in the months of December through March. The average annual precipitation at the bridge site is near 20 inches.

Also worthy of noting, is a proposed project to remove the four dams currently in place above the project limits, starting with Iron Gate Dam. This is proposed to take place around 2020, but even if it should happen, it is estimated that the flow rate would only increase approximately 7% with a 3.6 inch rise in surface elevation. Neither would affect the proposed bridge replacement project.

## ***Environmental Consequences***

### ***Temporary Construction Impacts***

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Caltrans evaluated the effects to water velocities and water surface elevations from having temporary piles, cobble work pads and a reduced width of approximately 80 feet within the Klamath River to accommodate temporary work trestles. The temporary piles and gravel pads are not anticipated to impact the flow of the river significantly. At a flow rate of 23,000 cubic feet per second (cfs), the water surface elevation when the temporary piles and gravel pads are in place would be about 1.2 feet higher than under existing conditions. However, this is still about six feet lower than the 100-year water surface elevation, so no significant encroachment on a floodplain is anticipated.

#### ***Alternative B (Rehabilitate Existing Bridge)***

Alternative B would require construction of one temporary work trestle, within the waterway, similar to that trestle required for demolition under Alternative A and no significant encroachment on a floodplain is anticipated.

#### ***Alternative C (No-Build)***

Alternative C would not change the current structure and would have no temporary impacts on hydrology or floodplains in the project area.

### ***Permanent Construction Impacts***

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Once the new bridge is completed and the current bridge and falsework are removed, there would be no impacts to the hydrology or floodplain of the Klamath River, as there would no longer be any piers below the ordinary high water mark (OHWM).

#### ***Alternative B (Rehabilitate Existing Bridge)***

The rehabilitation Alternative B would create negligible permanent impacts to the hydrology or floodplain of the Klamath River, as the rehabilitated piers would be negligible in size increase or decrease.

#### ***Alternative C (No-Build)***

The No-Build Alternative C would not change the current structure and would have no permanent impacts on hydrology or floodplain in the project area.

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

No avoidance, minimization, or mitigation measures are proposed.

## **2.7 Water Quality and Storm Water Runoff**

### ***Regulatory Setting***

Clean Water Act (CWA) Section 303(d) mandates that states, territories, and authorized tribes develop a list of segments of water that do not meet water quality standards, even

after pollution control technology has been implemented for point sources of pollution. The Klamath River and Shasta River are listed as impaired and being addressed by a Total Maximum Daily Load Action Plan.

Section 401 of the CWA requires water quality certification from SWRCB or from a Regional Water Quality Control Board (RWQCB) when the project requires a CWA Section 404 permit to dredge or fill within a water of the United States.

Along with CWA Section 401, CWA Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and nine RWQCBs. The SWRCB and RWQCB also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The SWRCB has developed and issued a statewide NPDES permit to regulate storm water discharges from all Caltrans activities on its highways and facilities. Construction projects that create greater than one acre of disturbed soil area are regulated under the Statewide Construction General permit Order No. 2009-0009-DWQ (CGP). Construction projects covered by the CGP require a Storm Water Pollution Prevention Plan (SWPPP) to be prepared and implemented during construction.

### ***Affected Environment***

This project is located on the Klamath River approximately 600-feet upstream of the confluence of the Shasta River. The project area is located in the Middle Klamath River Hydrologic Area, within the Klamath River Hydrologic Unit, part of the Klamath River Basin. Domestic and agricultural water supply needs in the Middle Klamath River Hydrologic Area are met through surface water diversions, groundwater pumping, and springs. A minor portion of the project is located within the Shasta River Hydrologic Area, within the Klamath River Hydrologic Unit.

### ***Environmental Consequences***

#### ***Alternatives A and B (Build New Bridge and Remove Existing Bridge and Rehabilitate Existing Bridge)***

New bridge construction or rehabilitation would both require work within the Klamath River. Short term impacts within the river bed would be caused by pile driving, work pad construction, and removal of existing bridge piers and footings should the existing bridge be removed. Project construction has potential to cause short-term water quality impacts from pollutants, such as sediment/turbidity, concrete contact water, soil stabilization residues, oil and grease, nutrients, organic compounds, and trash and debris (i.e. pollutants of concern). The rehabilitation alternative would more than likely carry greater impacts to these areas due to the duration of in channel work as well as the need for coffer dams and dewatering. No permanent impacts to water quality would occur as a result of either alternative.

### ***Alternative C (No-Build)***

The No-Build Alternative C would not change the current structure and would have no temporary or permanent impacts on water quality.

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

The project would not result in adverse water quality impacts and therefore, no avoidance, minimization or mitigation measures are proposed. Standard special provisions are included in all projects to address water quality and storm water runoff. Caltrans would comply with regulatory permits and various regulations pertaining to construction and maintenance activities associated with transportation projects.

A 401 certification from the North Coast RWQCB will be required for project construction. Clean Water Act Section 401 regulations allow the Executive Officer of the Regional Boards wide discretion in implementing Basin Plan requirements and water quality objectives (WQOs). The North Coast RWQCB regulates storm water discharges for proposed project through the CWA 401 Certification program. The North Coast RWQCB requires that all projects, which require a 401 Certification, evaluate the potential to include treatment BMPs and support the incorporation of Low Impact Development (LID) BMPs. These policy goals are incorporated into the Regional Board's 401 Certification Application (North Coast RWQCB 2012; Section 5, A and B).

The treatment BMP design elements, and upgrading the drainage system will provide long-term water quality benefits.

### ***Standard Construction Practices***

The proposed project will involve soil disturbance of more than one acre, therefore, Caltrans would adhere to coverage under the CGP. To comply with the conditions of the CGP and address temporary water quality impacts resulting from the construction activities associated with this project, Caltrans would require the contractor to prepare and implement a SWPPP. To avoid contaminating waterways or groundwater, additional water quality, erosion, and hazardous waste provisions may also be required in the construction contract and/or in Caltrans Standard Specifications and Standard Special Provisions. The SWPPP will address the construction-phase impacts and will include the following: Project Description; Minimum Construction Control Measures; Erosion and Sediment Control; Non-Storm Water Management; Post-Construction Storm Water Management; Waste Management and Disposal; Maintenance, Inspection, and Repair; Annual Reporting to RWQCB; and Training.

If groundwater is encountered during any excavations, Caltrans Office of Environmental Engineering would be contacted regarding the handling and disposal of the water. If the water would be discharged into any jurisdictional waters such as the Klamath River, appropriate dewatering procedures would be required to reduce or eliminate any potential discharge of pollutants to the maximum extent feasible. A project-specific Waste Discharge Permit may be required from the RWQCB if substantial dewatering will take place. In the event that this project would affect groundwater, the groundwater

would be tested for potential contamination, and a Special Provision will be prepared, if applicable, to ensure the proper handling and disposal of the groundwater.

Appropriate permanent control measures to reduce pollutants in storm water runoff from the roadway would be implemented to reduce suspended particulate loads (and thus pollutants associated with the particulates) entering drainages.

## **2.8 Hazardous Waste/Materials**

### ***Regulatory Setting***

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

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper management of hazardous material is vital if it is disturbed during project construction.

### ***Affected Environment***

The Caltrans Hazardous Waste Office completed an Initial Site Assessment (ISA) in 2011, but did not consider the purchase of Right of Way parcel PE 206020, which is

required for bridge realignment. A supplemental ISA was performed in 2015, including a field study on the Right of Way parcel PE 206020.

In April 2015, a survey for asbestos and lead containing paint was conducted for the bridge, as well as all of the structures on Right of Way Parcel PE 206020. A field study was also performed on the Right of Way parcel PE 206020 to locate underground storage tanks that were presumed present at one time, based on historic photographs showing fuel dispensers at the site.

These assessments involved field inspections to identify existing land uses for potential hazardous waste sites or materials. A search of regulatory databases containing information on known hazardous waste sites was also conducted for this project. The database search area consisted of a 1-mile radius around the study area. In addition, a search of regulatory agency files, published government documents, current aerial photographs and other sources provided additional information on known hazardous waste sites in or near the project area and past land uses that might indicate the presence of hazardous materials.

It was determined that the project site is not listed on the State List of Hazardous Waste Sites, also referred to as the "Cortese List." The investigation did not locate any underground fuel storing in the area in front of the main building on parcel PE 206020.

### ***Environmental Consequences***

#### ***Alternatives A and B (Build New Bridge and Remove Existing Bridge and Rehabilitate Existing Bridge)***

The following potential hazardous waste issues were identified during the investigations and would have the potential to occur under both Alternative A and B, with the exception of lead containing paint in the sheds and main residence which would only be impacted under Alternative A:

#### ***Lead Containing Paint (LCP)***

It is expected that excavated material from roadway realignment and abutment construction to contain low levels of lead. The survey also determined the sheds and main building on parcel PE 206020 have deteriorated lead containing paint that will require abatement prior to demolition.

#### ***Asbestos Containing Material (ACM)***

ACM has been commonly used in bearing pads and joint filler material for bridge abutment and expansion joints. A site investigation detected no ACM on the bridge. The survey determined that there is a limited amount of asbestos present in a roofing mastic on the main building of parcel PE 206020.

#### ***Treated Wood Waste (TWW)***

TWW is present within the project limits in the form of MBGR and sign posts.

### **Alternative C (No-Build)**

The No-Build Alternative C would not change the bridge or surrounding structures and would have no impact related to hazardous waste.

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

Hazardous waste investigations revealed minor issues as discussed above and no avoidance, minimization or mitigation measures are proposed. As standard practice Caltrans would comply with the following regulations and implement the following standard provisions:

- A National Emissions Standards for Hazardous Air Pollutants (NESHAP) permit is required for demolition of the bridge and buildings on parcel PE 206020.
- A Lead Compliance Plan will be required, but excavated earth material may be used on the project or disposed of without restriction.
- TWW generated on the project would be disposed of at an appropriately permitted disposal facility. In addition to disposal, Caltrans would specify the manner in which TWW must be stored while awaiting disposal.

## **2.9 Air Quality**

### **Regulatory Setting**

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

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

## Conformity

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. “Transportation Conformity” applies to highway and transit projects and takes place on two levels: the regional—or, planning and programming level—and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and in some areas (although not in California), sulfur dioxide (SO<sub>2</sub>). California has attainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO<sub>2</sub>, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP), and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the Clean Air Act and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA), make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept, scope, and “open-to-traffic” schedule of a proposed transportation project are the same as described in the RTP and the TIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Conformity analysis at the project-level includes verification that the project is included in the regional conformity analysis and a “hot-spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>). A region is “nonattainment” if one or more of the monitoring stations in the region measures a violation of the relevant standard and the U.S. EPA officially designates the area nonattainment. Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially redesignated to attainment by U.S. EPA, and are then called “maintenance” areas. “Hot-spot” analysis is essentially the same, for technical purposes, as CO or particulate matter

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

### ***Affected Environment***

The proposed project is located in Siskiyou County which is governed by the Siskiyou County Air Pollution Control District. Siskiyou County is located in the Northeast Plateau Air Basin. This Basin includes Siskiyou, Modoc, and Lassen Counties. The northern part of the Basin has volcanic peaks, such as Mount Shasta and Mount Lassen. The southern and western parts of the Basin are dominated by forested mountains. The Basin covers approximately 14,788 square miles and is bordered by the states of Oregon to the north and Nevada to the east.

### ***Conformity***

Siskiyou County is in attainment or is unclassified for all current National Ambient Air Quality Standards (NAAQS). Therefore, conformity requirements do not apply.

### ***Environmental Consequences***

#### ***Project Level Analysis***

This project does not change traffic composition, traffic speed or traffic volume so it will have a neutral impact on air quality in the project area.

#### ***Temporary Construction Impacts***

The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM10, would be the primary short-term construction impact, which may be generated during excavation, grading and hauling activities. However, both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature. 40 CFR §93.123(c) (5) states that: “CO, PM10 , and PM2.5 hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established ‘Guideline’ methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site.” Because construction of the project is expected to last less than five years, construction-related emissions associated with this project are not considered in the project-level or regional conformity analysis.

### ***Climate Change***

Climate change is analyzed in Chapter 3. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis.

As stated on FHWA's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will aid decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

Because there have been more requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this environmental document and may be used to inform the National Environmental Policy Act (NEPA) decision. The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

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

The project would not affect air quality, thus no avoidance, minimization or mitigation measures are proposed. The following Caltrans standard specification would be incorporated into the project to address, any temporary construction related issues:

- The contractor is required to comply with Caltrans' Standard Specifications, which include Section 7-1.01F "Air Pollution Control" and Section 10 "Dust Control." In addition, the U.S. Environmental Protection Agency's National Emissions Standards for Hazardous Air Pollutants (NESHAP) and the California Air Resources Control Board (CARB) rules require the contractor to notify the CARB in writing prior to the demolition or renovation of a bridge.

## **2.10 Noise and Vibration**

### ***Regulatory Setting***

Title 23, Part 772 of the Code of Federal Regulations (23CFR772) provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for Federal and Federal-aid highway projects. Under 23CFR772.7, projects are categorized as Type I, Type II, or Type III projects.

The Federal Highway Administration (FHWA) defines a Type I project as a proposed Federal or Federal-aid project for the construction of a highway on a new location; the physical alteration of an existing highway where there is either substantial horizontal or substantial vertical alteration; the addition of through lane; the addition of auxiliary lanes, except when the auxiliary lane is a turn lane; the addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial

interchange; restriping existing pavement for the purpose of adding through-traffic lane or an auxiliary lane; or the addition of a new or substantial alteration of a weight station, rest stop, ride-share lot, or toll plaza. A Type II project involves construction of noise abatement on an existing highway with no changes to highway capacity or alignment. A Type III project is a project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

23CFR772 defines substantial vertical alignment alteration as a project that removes shielding thereby exposing the line-of-sight between the receptor and the traffic noise source. This is done by altering either the vertical alignment of the highway or the topography between the highway traffic noise source and the receptor. 23CFR772 defines substantial horizontal alignment alteration as a project that halves the distance between the traffic noise source and the closest receptor between the existing conditions to the future build conditions.

### ***Affected Environment***

The proposed project lies in a largely undeveloped area where SR 263 and SR 96 intersect in Siskiyou County. Most of the land in the project area has been classified as rural by Siskiyou County. Residential development within the project limits consists of a few individual single-family residences scattered along SR 96 approximately a ¼ mile east of the project area, consistent with the rural residential land use. There is one residence within the project limits approximately 500 feet west of the current structure.

### ***Environmental Consequences***

#### ***Temporary Construction Noise***

Noise generated by construction activities would be a function of the noise levels generated by individual pieces of construction equipment, the type and amount of equipment operating at any given time, the timing and duration of construction activities, and the proximity of nearby sensitive receptors.

This project would include demolition, earthwork, excavation, grading, paving, concrete work, and pile driving. Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. Construction noise levels will vary on a day-to-day basis during each phase of construction depending on the specific task being completed.

FHWA's Roadway Construction Noise Model (RCNM) was used to calculate the maximum and average noise levels anticipated during each phase of construction. The construction noise model includes representative sound levels for the most common types of construction equipment and the approximate usage factors of such equipment that were developed based on an extensive database of information gathered during the construction of the Central Artery/Tunnel Project in Boston, Massachusetts (CA/T Project or "Big Dig"). The usage factors represent the percentage of time that the equipment would be operating at full power. Vehicles and equipment anticipated during each phase of construction were input into RCNM to calculate noise levels at 50 feet. Table 1 presents the construction noise levels calculated for each major phase of the project.

Noise generated by construction equipment drops off at a rate of 6 dB per doubling of distance.

**Table 2.10-1 Construction Noise Levels**

Construction Phase	Maximum Noise Level ( $L_{max}$ , dBA)	Hourly Average Noise Level ( $L_{eq(h)}$ , dBA)
	50 feet	50 feet
Demolition	89	84
Earthwork	85	84
Paving	85	84
Structures (Pile Driving)	101	94

This project may require the use of pile drivers. Pile driving generates noise levels ranging between 95 and 101 dBA  $L_{max}$  at 50 feet. The closest noise sensitive land uses are approximately a quarter mile from the project area. At this distance, maximum noise levels during pile driving would be 65 dBA  $L_{max}$  or less.

The one residence within immediate proximity to the proposed new bridge location would not be impacted by ongoing construction noise, because the property would have to be acquired under the Build alternative. No adverse noise impacts from construction are anticipated.

***Permanent Noise Effects***

Traffic volumes, composition and speeds would remain the same in the build and no build condition and the proposed alignment change will not move the roadway closer to any sensitive receptors. This project will not result in permanent adverse noise impacts.

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

The proposed project would not result in an adverse effect with respect to noise levels, therefore no avoidance, minimization or mitigation measures are proposed. The project would include Caltrans Standard Specifications related to noise from construction equipment.

**Biological Environment**

**2.11 Natural Communities**

***Regulatory Setting***

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

Wetlands and other waters are discussed in Section 2.12. Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Section 2.14.

### ***Affected Environment***

#### ***Upland Habitat***

Klamath Mixed Conifer vegetation within the proposed project corridor is sparse and disturbed. Agriculture and developed habitats are found along the Klamath River from Iron Gate Dam to the Shasta River. The mixture of conifer and hardwood forests normally found within the Klamath range is extremely meager in the adjacent and surrounding mountain ranges and slopes: western junipers are the common conifer observed on these mountain ranges and slopes. Ponderosa pine, Jeffrey pine, and Douglas fir are present, but scattered. Barren habitat, consisting of exposed rock, make up the majority of the surrounding landscape. Disturbances such as recreational activities, commercial, and residential uses have also contributed to the alteration of the landscape. Frequent wildfires in the region have also left deep fire scars, and upland plant communities have reverted to montane chaparral in some areas.

#### ***Riparian Habitat***

The Klamath River from Iron Gate Dam to Shasta River contains abundant woody riparian vegetation. Riparian vegetation in the proposed project location is confined to the narrow corridors on either side of perennial streams, especially in areas characterized by narrow valleys and steep hill slopes. Water flows, water levels in the river, and sediment influence the growth of the riparian vegetation in the project area. Tree-dominated stands are small to medium (1 to 14 inches diameter at breast height) in size. Dominant species are alder, Oregon white oak, black oak, big-leaf maple, Oregon ash, willow, and some black cottonwood. Understory vegetation is most commonly Himalayan blackberry.

### ***Environmental Consequences***

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

The proposed bridge replacement would affect riparian habitat, resulting in permanent impacts totaling approximately 0.15 acres, and temporary disturbance totaling approximately 0.87 acres. These impacts would result from vegetation removal in locations that conflict with the proposed new bridge structure, and in locations where access roads, pads, etc., for construction would be necessary. The removal of the existing piers, the home, and the outbuildings could potentially provide up to an additional 0.41 acres of area where riparian vegetation can grow. The total estimated riparian area for the entire Klamath River watershed is approximately 632 acres and approximately 1.5 acres of total estimated riparian within the Environmental Study Limits (ESL), therefore, 0.15 acre of permanent loss of riparian habitat would be nominal.

### ***Alternative B (Rehabilitate Existing Bridge)***

The rehabilitation alternative would result in a temporary impact to riparian habitat of approximately 0.87 acre for construction access and trestle construction and a permanent impact to riparian habitat of approximately 0.15 acre for increase in size to the pier and abutment footings. The total estimated riparian area for the entire Klamath River watershed is approximately 632 acres and approximately 1.5 acres of total estimated riparian within the ESL, therefore, 0.15 acre of permanent loss of riparian habitat would be nominal.

### ***Alternative C (No-Build)***

There would be no work on or near the bridge and no impacts to upland habitat or riparian habitat.

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

Impacts to upland habitat and riparian vegetation would be minimal, therefore no avoidance, minimization or mitigation measures are proposed. The following standard practices would be included in the project:

- Tree and shrub or vegetation removal will be limited to only that required to construct the project.
- Existing riparian vegetation, adjacent to construction activities, located within the project limits would be surrounded by protective fencing during construction to prevent unnecessary removal.
- Erosion control will be applied to disturbed areas. These areas may also be replanted, where feasible and appropriate.

## **2.12 Wetlands and Other Waters**

### ***Regulatory Setting***

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

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is

less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

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

At the state level, wetlands and waters are regulated primarily by CDFW and the RWQCBs. In certain circumstances, the California Coastal Commission (or Bay Conservation and Development Commission) may also be involved. California Fish and Wildlife Code Section 1600 et seq. requires that any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed, channel, or bank of a river, stream, or lake must first notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCBs also issue water quality certifications in compliance with Section 401 of the Clean Water Act. (See Section 2.7 for additional details).

## ***Affected Environment***

### ***Other Waters***

The Klamath River is considered Waters of the US. The total amount of Waters of the US within the project limits is approximately 208,028 square feet (4.80 acres).

The Klamath River originates at Upper Klamath Lake in the State of Oregon. The Klamath River is divided into two parts: the lower and upper basins. The lower basin extends downstream from Iron Gate Dam to the Pacific Ocean, and the upper basin extends upstream from the dam. The upper basin has six dams which are used for hydropower, supply of irrigation water, and to control and regulate the levels of flow in the river as well as lake levels in Upper Klamath Lake. Flows below Iron Gate Dam to the lower part of the basin are reduced and altered seasonally due to water management along the upper reaches. The removal of Iron Gate Dam has been proposed and is tentatively scheduled to occur in 2020. The ordinary high water level, is estimated to increase by approximately six inches as a result of the dam removal.

### Wetlands

No wetlands are present in the project area.

## **Environmental Consequences**

### **Temporary Impacts**

#### Waters of the U.S.

##### **Alternative A (Build New Bridge and Remove Existing Bridge)**

The proposed project would affect open water habitat, resulting in temporary impacts totaling 0.05 acre. These impacts are a result of the placement of piles and, potentially, gravel pads for the construction of temporary trestles over Klamath River to facilitate construction of the new bridge and demolition of the existing bridge. This could temporarily affect water quality through initial increases in turbidity and sediment transport.

##### **Alternative B (Rehabilitate Existing Bridge)**

The rehabilitation Alternative B would require construction of a similar, if not more invasive, temporary work trestle within the waterway, potentially causing temporary impacts for a longer period of time based on the foundation access and extensive work necessary to rehabilitate the current structure. This includes excavations at each of the pier and abutment foundations, construction of a coffer dam or a similar structure, and dewatering. These activities could temporarily affect water quality through increased turbidity and sediment transport.

##### **Alternative C (No-Build)**

There would be no work on or near the bridge and no temporary impacts to Waters of the U.S.

### **Permanent Impacts**

##### **Alternative A (Build New Bridge and Remove Existing Bridge)**

Permanent impacts to Waters of the U.S. associated with new bridge construction would result in an additional 0.01 acres of open stream habitat once the current structure and its piers are removed, as the new structure would be situated above OHWM. Construction of the new bridge outside of the flowing channel and removal of the existing piers from the channel would result in beneficial impacts such as reduced scour, improved navigability for boaters and overall improved river quality. No permanent adverse effects would be anticipated.

##### **Alternative B (Rehabilitate Existing Bridge)**

Permanent impacts to Waters of the US associated with bridge rehabilitation alternative include a loss of approximately 0.01 acres of open stream habitat due to enlarging the pier footings within the stream channel and the addition of RSP to protect the footings from scour. This alternative would affect navigability for boaters and overall river quality

due to the enlarged structure. This alternative also has the potential to reduce aquatic habitat quality for the same reasons.

### ***Alternative C (No-Build)***

There would be no work on or near the bridge and no permanent impact to Waters of the U.S.

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

Work within waters of the U.S. and State would be conducted in accordance with applicable regulatory permits. Although no significant effects would occur, any loss of waters, wetlands and/or riparian vegetation, would be offset based on negotiations between Caltrans and the respective regulatory agencies.

## **2.13 Animal Species**

### ***Regulatory Setting***

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.14 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

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

State laws and regulations relevant to wildlife include the following:

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

### ***Affected Environment***

Prior to conducting field surveys, a records search and database review was conducted in order to identify special-status animal species known to occur, or with the potential to occur within the ESL. This included accessing the CNDDDB, CDFW Lists of Special Animals, CDFW Lists of Animals Species of Special Concern, CDFW Lists of Fully Protected Animals, CDFW Lists of Endangered and Threatened Animals, and the

USFWS list of Birds of Conservation Concern (USFWS 2008), USFWS list of MBTA Protected Species (USFWS 2013), and USFWS list of Focal Species (USFWS 2012) as well as BLM Special Status Plants (BLM 2013) and Animals (BLM 2010). NOAA's NMFS species list was also obtained. Field surveys were subsequently conducted to determine the presence or absence of special-status animal species within the ESL and to evaluate potential project impacts. Special status animal survey reports completed for the proposed project include:

- 2016 Natural Environmental Study
- 2016 Biological Assessment

The special-status animal species listed in Table 2.13-1 are those known to occur, or are considered likely to occur, in the Environmental Study Limits (ESL). Special-status animal species with no real potential to occur within the ESL, and thus no potential to be impacted by the proposed project, is not included in Table 2.13-1, and no further discussion is provided. If a species is known to occur in the ESL, or could potentially occur, additional discussion is provided for each species below. A complete list of regional species of concern is included in Appendix E. Threatened and endangered species are listed in Table 2.14-1.

**Table 2.13-1 Special-Status Animals Potentially Occurring in the ESL**

<i>Scientific Name</i>	<b>Common Name</b>	<b>Protection Status*</b>	<b>Habitat Requirements</b>	<b>Habitat Present in ESL</b>	<b>Species Present in ESL</b>	<b>Potential for Occurrences and Rationale</b>
<b>Amphibian</b>						
<i>Rana boylei</i>	Foothill yellow-legged frog	BLM_S, USFS_S/SSC	Partly-shaded, shallow streams & riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Yes	No	Assumed present. No individuals observed in the ESL during site visits; however, CNDDDB documented occurrences in some perennial tributaries within a 10 mile radius (I-5 near Hilt).
<b>Birds</b>						
<i>Aquila chrysaetos</i>	Golden eagle	BLM_S/FP	Rolling foothills, mountain areas, sage-juniper flats, & desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Yes	No	Unlikely. Individuals of this species may be presence in the ESL for foraging; however, there is no suitable nesting habitat present in the ESL.
<i>Ardea Herodias</i>	Great Blue Heron	--/SA	Colonial nester in tall trees, cliff sides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Yes	No	Unlikely. Individuals of this species may be presence in the ESL for foraging; however, there is no suitable nesting habitat present in the ESL.
<i>Falco peregrinus anatum</i>	American peregrine falcon	D/FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Yes	No	Unlikely. Although the ESL is generally within the species' range; however, species' presence would most likely be only in the winter.
<i>Haliaeetus leucocephalus</i>	Bald eagle	D/FP	Ocean shore, lake margins, & rivers for both nesting & wintering. Most nests within 1 mi of water. Nests in large, old-growth, or dominant live tree w/open branches, especially ponderosa pine. Roosts communally in winter.	Yes	No	Unlikely. Individuals of this species may be presence in the ESL for foraging; however, there is no suitable nesting habitat present in the ESL.
<b>Fish</b>						
<i>Catostomus snyderi</i>	Klamath largescale sucker	--/SSC	Native to the Klamath River & Lost River-Clear Lake systems of Oregon and California. Inhabits both lentic & lotic habitats, but primarily a riverine fish, they migrate upstream to spawn in spring.	Yes	No	Assumed present. No individuals observed in the ESL during site visits; however, CNDDDB documented the closest occurrence is approximately 13.3 river miles away in the Iron Gate Reservoir.
<i>Entosphenus similis</i>	Klamath River Lamprey	BLM_S/SSC	Upper Klamath River and upper Klamath Lake. Adults need coarser gravel-rubble substrate for spawning. Ammonoetes need sand/mud substrate in shallow pools.	Yes	No	Assumed present; however, unlikely. Because the ESL lack a supply of fine sediment that favors the development of pool and riffle habitat along the river margins that are

						important burrowing habitat for the larval lamprey.
<i>Lampetra tridentata</i>	Pacific Lamprey	USFS_S/SSC	Found in Pacific Coast streams north of San Luis Obispo Co., however regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temps between 12-18 C. Ammocoetes need soft sand or mud.	Yes	No	Assumed present. No individuals observed in the ESL during site visits; however, individuals of this species have been observed in the nearby Shasta River and may very well be in other perennial tributaries of the Klamath River. Adults or juveniles may cross the ESL on their way upstream to spawning grounds or downstream to the ocean.
<i>Oncorhynchus mykiss irideus</i>	KMP-summer steelhead	USFS_S/--	Watersheds with cool, swift, shallow water and clean loose gravel for spawning	Yes	No	Assumed present; however, unlikely. Because individuals are more common in the lower reaches of the Klamath River tributaries, and they are uncommon above Seiad Valley.
<i>Oncorhynchus mykiss irideus</i>	KMP-winter steelhead trout	USFS_S/--	Watersheds with cool, swift, shallow water and clean loose gravel for spawning	Yes	No	Assumed present; however, unlikely. Because individuals are more common in the lower reaches of the Klamath River tributaries, and they are uncommon above Seiad Valley.
<i>Oncorhynchus tshawtscha</i>	UKTR Chinook salmon-Fall	USFS_S/SSC	Spring-run chinook in the Trinity River & the Klamath River upstream of the mouth of the Trinity River. Major limiting factor for juvenile chinook salmon is temperature, which strongly effects growth & survival.	Yes	No	Assumed present. Adults or juveniles may cross the ESL on their way upstream to spawning grounds or on their way downstream to more suitable rearing habitat. Juveniles may rear along the margins of the river.
<b>Mammals</b>						
<i>Antrozous pallidus</i>	Pallid bat	BLM_S/SSC	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Yes	No	Assumed present. Frequently roosts in bridges. Utilizes bridges for day, maternity and night roosts.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	BLM_S/CT	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls & ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Yes	No	Assumed present. Sometimes uses bridges for roosting for day, maternity or night roosts, especially if a portion of a bridge is analogous to a cave-like structure.
<i>Euderma maculatum</i>	Spotted bat	BLM_S/SSC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	Yes	No	Assumed present. Roosts in cliffs and rock crevices. Could be roosting in surrounding rock slopes and using adjacent habitat for foraging.
<i>Eumops perotis californicus</i>	Western mastiff bat	BLM_S/SSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub,	Yes	No	Assumed present. Roosts in cliff/rock crevices. May roost in surrounding rock

			grasslands, chaparral etc. Roosts in crevices in cliff faces, high buildings, trees & tunnels.			slopes. May forage around bridge and riparian vegetation along river margins.
<i>Myotis evotis</i>	Long-eared myotis	BLM_S/--	Found in all brush, woodland & forest habitats from sea level to about 9000 ft. prefers coniferous woodlands & forests. Nursery colonies in buildings, crevices, spaces under bark, & snags. Caves used primarily as night roosts.	Yes	No	Assumed present. This species roosts in buildings, crevices, spaces under bark, and snags.
<i>Myotis thysanodes</i>	Fringed myotis	BLM_S, USFS_S/--	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood & hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.	Yes	No	Assumed present. Most documented roosts have been in rock crevices, caves, or anthropogenic structures.
<i>Myotis yumanensis</i>	Yuma myotis	BLM_S/--	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Yes	Yes	Frequently roost in bridges. Uses bridge roosts for day, maternity and night roosts.

**Reptile**

<i>Actinemys marmorata</i>	Western pond turtle	BLM_S/SSC	All populations north of San Francisco Bay area and populations from the Central Valley north. A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Yes	Yes	A northwestern pond turtle was observed within the Klamath River upstream of the ESL. It was basking on a boulder along the stream edge. See NES for further discussion.
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**\*Protection Status Definition**

Federal		State	
--	No status definition	--	No status definition
T	Threatened	E	Endangered
D	Delisted	T	Threatened
		CT	Candidate Threatened
BLM_S	Bureau of Land Management Sensitive Species	D	Delisted
USFS_S	United States Forest Sensitive Species	FP	Fully Protected
		SSC	Species of Special Concern
		SA	The tracking of species regardless of their legal or protection status by CNDDB/"species at risk" or "special status species"

## ***Environmental Consequences***

### **Foothill Yellow-legged Frog**

#### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Although Foothill yellow-legged frog (FYLF) are known to be present within the vicinity of the proposed project limits, there are no known occurrences in the project's area of direct disturbance.

Construction of Alternative A would impact temporarily 0.05 acres of open waters of potential breeding or basking habitat. These impacts would be primarily due to the placement of temporary trestle piles required for the construction of the new bridge and the removal of existing bridge. The open water habitat that would be impacted by the proposed project lacks aquatic vegetation or overhanging cover. Additionally, this portion of the river experiences conditions that are often unfavorable to the FYLF due to the timing of high and low flow periods which alter the natural flow patterns of the river.

Because of these unfavorable conditions, it is not anticipated that FYLF will be encountered within the main channel. Also, adult FYLF are not usually found in sections of streams or rivers that have a moderate to high amount of low overhanging cover for shade, nor would it be likely that they would be found within the open waters or main channel of the Klamath River. Additionally, frogs were not observed during field surveys.

Construction of Alternative A would temporarily impact 687 linear feet of river margins and permanently remove 173 linear feet of river margin, which could serve as potential breeding or basking habitat. These impacts would be primarily due to vegetation removal in locations that conflict with the proposed new bridge, and in locations where access is necessary to facilitate demolition and removal of the existing bridge. The edge water habitat that would be impacted by the proposed project lacks cobble bar, slow moving water, pool, and suitable water velocities. The potential use of the river margin by adults and juveniles within the project's area as breeding habitat is unlikely. Additionally, the water velocities during the summer low flow is approximately 9.6 to 84.24 inches per second, which will cause partial egg mass scouring. Adults may use the river margin as basking habitat as it has rock outcrops for sun bathing, and overhead riparian canopy that could provide partial shade. However, their presence would be brief and transient within the ESL, especially when water temperatures can get as high as 80°F in the summer in the Klamath River.

#### ***Alternative B (Rehabilitate Existing Bridge)***

Construction of Alternative B would have potentially greater temporary impacts to open water habitat than the construction of Alternative A. This is due to the type and size of the existing bridge. The existing bridge is almost 200-feet longer than the proposed new bridge. The existing bridge also has one pier located adjacent to the edge of the channel and two piers located in the middle of the channel. In order to rehabilitate the existing bridge, each of the pier foundations would need to be dewatered with a coffer dam or similar structure to perform the work. The construction of Alternative B would also require more temporary piles to support the trestle. Therefore, the area of temporary impacts would more than double compared to Alternative A. Construction of

Alternative B would remove approximately one acre of open water habitat. The impact would be due to the enlargement of the existing two piers and foundations located in the middle of the channel.

Open water habitat that would be impacted by the construction of Alternative B is similar to that of the construction of Alternative A, in that the segment of the river where the existing bridge is located, lacks similar aquatic vegetation and overhanging cover. Additionally, this segment of the river also experiences conditions that are frequently unfavorable to the FYLF. These unfavorable conditions are due to the timing of high and low flow periods which alter the natural flow patterns of the river. Additionally, FYLF are not normally found in sections of streams or rivers that have moderately high to high amount of low overhanging cover for shade; therefore, they are unlikely to be found within the open waters where work would be taking place to enlarge the existing piers and foundations located in the middle of the channel.

Construction of Alternative B would also impact the river margins. The amount of temporary and permanent impacts would be similar to those resulting from of the construction of Alternative A. These impacts would be primarily due to vegetation removal in locations that conflict with the rehabilitation of the existing bridge including the enlargement of the pier foundation located adjacent to the edge of the channel. The edge water habitat that would be impacted by the construction of alternative B is similar to the edge water habitat of the proposed new bridge location, in that it lacks cobble bar, slow moving water, pool, and suitable water velocities. The potential use of the river margin by adult and juvenile FYLF in the area of the existing bridge as breeding habitat is also unlikely. However, adults can still use the river margin as basking habitat as it has rock outcrops for sun bathing, and overhead riparian canopy that could provide partial sun and shade. Their presence would be brief and transient within the ESL, especially when water temperatures can get as high as 80°F in the summer in the Klamath.

### ***Alternative C (No-Build)***

The No-Build Alternative would not require work on or near a bridge; therefore, there would not be any permanent impact to any FYLF.

### **Raptors and Migratory Bird Species**

All bird species except non-native bird species that have been introduced into the U.S. or its territory are protected under the Migratory Bird Treaty Act (MBTA). Two raptors listed in Table 2.13-1 are also protected under the Bald and Golden Eagle Protection Act.

There are no differences in impacts to each individual bird species regardless of the construction alternative chosen. Impacts are the same for all birds listed in Table 2.13-1; therefore, impacts discussed are grouped in this document. If impacts are specific to a species, the individual species will be identified.

### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Construction of Alternative A would temporarily impact 0.87 acre of vegetation and permanently remove 0.15 acre of vegetation of potential, low quality nesting and foraging habitat. These impacts would be primarily due to vegetation removal in locations that conflict with the proposed new bridge, and in locations where access is necessary to facilitate the removal of the existing bridge. The trees proposed for removal are not sufficient diameter or height to support nesting activities. Furthermore, the trees are located in an area of high disturbances. The bird species listed in Table 2.13-1 are very sensitive to human activity which can lead to termination of nesting activities, therefore, they would be unlikely to nest in the area where tree removal would occur.

Construction of Alternative A would also impact 0.05 acre of open water, which is potential foraging habitat for some birds. The bird species listed in Table 2.13-1 could be found preying on fish within the project's limits. However, most construction activities would be conducted during the summer months, when there would be few, if any, fish present in the mainstream Klamath River. In addition, the abundance of fish would coincide with hatchery releases and migration, for this reason, local bird species would most likely forage in tributaries further downstream or upstream from the project location.

Construction of Alternative A and the removal of the existing bridge could result in a loss of potential American peregrine falcon nesting habitat. However, the new bridge would offset this loss. Neither the new bridge nor the existing bridge have vegetation canopy for shade and protection, therefore, both bridges are unfavorable for nest placement by the American peregrine falcon.

Implementation of Alternative A may result in the removal of suitable habitat for other migratory bird species. However, the amount of riparian vegetation removed relative to the vegetation remaining in the vicinity of the bridge is proportionately small and therefore, effects from the bridge replacement project would be negligible.

The removal of the existing bridge would temporarily eliminate nesting habitat for cliff swallows. Construction of the new bridge would offset this loss.

### ***Alternative B (Rehabilitate Existing Bridge)***

Construction of Alternative B would have similar impacts to the bird species as discussed above for the construction of Alternative A.

### ***Alternative C (No-Build)***

The No-Build Alternative would not require work on or near a bridge; therefore, there would not be any impacts to any bird species.

## **Fish**

The Upper Klamath River coho salmon population is known to occur within the ESL. Juvenile coho salmon rearing could be expected within the ESL, as the river may

provide somewhat of a shallow and slow moving water habitat along its margins. Adult and juvenile coho may cross the ESL as they migrate upstream to spawning beds and as they migrate downstream to more suitable rearing habitat.

Other fish species that are likely to be in the project area include UKTR Chinook salmon, rainbow trout (*Oncorhynchus mykiss*), KMP steelhead, Klamath largescale and smallscale suckers, Klamath River lamprey, and Pacific lamprey.

### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Construction of Alternative A would potentially result in adverse effects to the special status fish species listed in Table 2.13-1. Section 2.14 discusses these temporary and permanent impacts in detail.

### ***Alternative B (Rehabilitate Existing Bridge)***

Construction of Alternative B would potentially result in adverse effects to the special status fish species listed in Table 2.13-1. Section 2.14 discusses these temporary and permanent impacts in detail.

### ***Alternative C (No-Build)***

The No-Build Alternative would not require work on or near a bridge; therefore, there would not be any temporary or permanent impacts to any fish species.

## **Bats**

Several bat species are known to utilize expansion joints in the existing bridge deck for day and night roosting. Yuma myotis is one of the primary species consisting of maternity colonies with several thousand individuals.

### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Construction of Alternative A would permanently remove approximately 10.74 cubic feet of potential roosting habitat within the existing bridge. Construction of Alternative A would also impact permanently about 0.15 acre (or 173 linear feet) and temporarily 0.87 acre (or 687 linear feet) of potential roosting/foraging habitat within vegetation adjacent to the existing bridge. The permanent removal of 0.15 acre (or 173 linear feet) and temporary removal of 0.87 acre (or 687 linear feet) of potential roosting/foraging habitat would result from the removal of trees and shrubs in locations that conflict with the proposed new bridge, and in locations where access is necessary to facilitate the removal of the existing bridge.

Although the removal of the existing bridge would have a direct impact to bat-occupied day, night, and maternity roosting habitat, the direct impact would be temporary and short-term in duration, as the new bridge would provide approximately 71.25 cubic feet of roost habitat. No adverse effects are anticipated, because downstream and upstream reaches contain open water and riparian vegetation that would most likely provide equal or greater foraging ground to the bats.

The permanent removal of 0.15 acre and temporary removal of 0.87 acre of trees and shrubs would not have a direct impact on bats, as the trees and shrubs proposed for removal do not have the hollow or loose bark to provide suitable roost habitat. They are also located upslope near the highway, which is not ideal due to vehicular activity.

Impacts to bats could occur due to the temporary relocation of existing large rock (riprap), which is used to protect the bridge foundations from scour. However, this habitat would be considered poor because the rocks are adjacent to the highway and directly below the abutments and not high enough above the ground to provide protection from predators.

### ***Alternative B (Rehabilitate Existing Bridge)***

Construction activities associated with the implementation of Alternative B would be more invasive than the construction of Alternative A.

Construction of Alternative B would result in greater direct impact to bats because more noise and vibration would be generated directly to the structure in use. This may cause bats to abandon their roosts sites. Bats would have less time to acclimate to construction disturbances. Bats would have less roosts habitat to use when a portion of the existing bridge is excluded for construction and bats would have to travel to a different location which would consume more of their energy.

### ***Alternative C (No-Build)***

The No-Build Alternative would not require work on or near a bridge; therefore, there would not be any permanent impact to any bat species.

### **Northwestern Pond Turtle**

Northwestern pond turtles (NWPT) are known to be present within the vicinity of the proposed project, but there are no known occurrences in the proposed project's area of direct disturbance. One pond turtle was observed during field surveys.

### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Construction of Alternative A would temporarily impact 0.05 acre of open waters, primarily due to the placement of temporary trestle piles required for the construction of the new bridge and the removal of existing bridge. This open water habitat is swift and lacks submergent or short emergent vegetation, which is unfavorable to the NWPT.

Because of these conditions, the presence of NWPT within the main channel is unlikely and the species would not be impacted.

Construction of Alternative A would also temporarily impact 687 linear feet of river margin and permanently remove approximately 173 linear feet of river margin which could be of potential breeding or basking habitat. These impacts would be due to vegetation removal in locations that conflict with the proposed new bridge, and in locations where access is necessary to remove of the existing bridge. The edge water habitat that would be impacted by the proposed project lacks shallow water and dense

submergent or short emergent vegetation in which to forage by hatchlings; therefore, potential use of the river margin by NWPT within the project's limits as breeding habitat is unlikely. Additionally, the river banks with a southern exposure lack soil depth and proper humidity to support nesting activities. Adults and/or juveniles may use the river margin as basking habitat as it has rock outcrops available, and overhead riparian canopy that could provide partial sun and shade. However, their presence would be brief and transient within the project's limits.

The proposed project is not anticipated to impact western pond turtle.

### ***Alternative B (Rehabilitate Existing Bridge)***

Construction of Alternative B would have more temporary impacts to open water habitat than the construction of Alternative A. This is due to the type and size of the existing bridge. The existing bridge is almost 200feet longer than proposed new bridge. The existing bridge also has one pier located adjacent to the edge of the channel, and two piers located in the middle of the channel. In order rehabilitate the existing bridge, each of the piers would need to be dewatered with a coffer dam or similar structure to perform the work. The construction of Alternative B would also require more temporary piles to support the trestle. Therefore, the area of temporary impacts would more than double that of the Construction of Alternative A.

### ***Alternative C (No-Build)***

The No-Build Alternative would not require work on or near a bridge; therefore, there would not be any permanent impact to any NWPT.

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

### **Foothill Yellow-Legged Frog**

Although the project site is not expected to result in a take of FYLF, nor would the project result in a loss of suitable FYLF habitat, the following avoidance measures would be incorporated into the proposed project:

- Prior to the start of construction, a qualified biologist would survey suitable FYLF aquatic and upland habitats, to ensure no FYLF are present. If FYLF are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.

### **Raptors and Migratory Bird Species**

The proposed project would not be expected to result in a take of animals, therefore no avoidance, minimization or mitigation measures are proposed. However, the following standard special provisions would be included in the project:

- During construction, if migratory or nongame bird nests are discovered that may be adversely affected by construction activities or an injured or killed bird is found, work would stop immediately within a 100-foot radius of the discovery. A Caltrans biologist

would be notified for guidance on how to proceed. Construction activities would not resume within the specified radius of discovery until authorized.

- Tree removal will take place between September 1 and February 15.
- For Alternatives A or B, if construction or demolition operations would interfere with swallows nesting on the existing bridge, which is anticipated between February 15 and September 1, Existing swallow nests would be removed from the existing bridge prior to February 15, which is prior to the beginning of the nesting season. In addition, exclusion devices would be installed prior to the arrival cliff swallows, between September 1 and February 15.

### **Fish**

The proposed measures to avoid and minimize impacts to fish are listed in the Threatened and Endangered Species Section 2.14.4 below. Restrictions set forth by NMFS will be fully implemented as part of construction to avoid and minimize potential impacts to coho salmon and will by extension protect the fish species listed in Table 2.13-1.

### **Bats**

Although the proposed project would not be expected to result in take of bats, and will increase suitable bat habitat, the following avoidance measures would be incorporated into the proposed project:

- The contractor would supply a qualified biologist that specializes in bats to provide guidance and direction on excluding bats that inhabit the existing structure.
- The contractor supplied biologist would develop a plan to sequence bat exclusion, bridge construction and demolition. Bats must not be present in the existing bridge when demolition begins. The new bridge must be available to bats before the existing bridge is removed. The contractor must submit the sequencing plan for authorization, and must not start work until the plan is authorized.
- Bat exclusion would be performed between September 1 and March 31.
- Tree removal would take place between September 1 and February 15, which is outside of the anticipated roosting season of special-status bats.

### **Northwestern Pond Turtle**

Although implementation of Alternative A or B would not be expected to result in a take of NWPT, nor would the project result in a loss of suitable NWPT habitat, the following avoidance measures would be incorporated into the proposed project:

- Prior to the start of construction, a qualified biologist would survey suitable NWPT aquatic and upland habitats, to ensure no NWPT are present. If turtles are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.

- Commitments listed in Section 2.14.4 for the T/E species to protect coho salmon would also protect NWPT.

## **2.14 Threatened and Endangered Species**

### ***Regulatory Setting***

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

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

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

### ***Affected Environment***

Wildlife surveys within the Klamath River identified the presence of various fish species. The Federally Threatened Southern Oregon/Northern California Coasts (SONCC), Evolutionary Significant Unit (ESU) coho salmon (*Oncorhynchus kisutch*) could occur within the vicinity of the proposed project during construction and may be affected by proposed action. Designated critical habitat for SONCC ESU coho salmon and Essential Fish Habitat (EFH) for coho salmon overlap the proposed project's location.

**Table 2.14-1 State and Federally Threatened and Endangered Species**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status*</b>	<b>Habitat Requirements</b>	<b>Habitat Present in ESL</b>	<b>Species Present in ESL</b>	<b>Potential for Occurrences and Rationale</b>
<b>Fish</b>						
<i>Oncorhynchus kisutch</i>	SONCC coho salmon	T/T	Fed listing refers to populations between Cape Blanco, Oregon & Punta Gorda, Humboldt County, California. State listing refers to populations between the Oregon border & Punta Gorda, California.	Yes	No	Assumed present. Adults or juveniles may cross the project location on their way upstream to spawning grounds or on their way downstream to more suitable rearing habitat. Juveniles may rear along the margins of the river.

## ***Environmental Consequences***

### ***Temporary Construction Impacts***

#### ***Alternatives A (Build New Bridge and Remove Existing Bridge)***

The construction of Alternative A would disturb temporarily 0.05 acre of open waters which is considered a migratory corridor for the coho. These disturbances would be due to the placement of temporary piles and possibly gravel pads for the construction of temporary work trestles over the Klamath River for construction of the new bridge and demolition of the existing bridge. Construction of alternative A would provide approximately an additional 0.01 acre of open water habitat because the in-water piers of the existing bridge would be removed and the proposed new bridge would not have in-water piers. The construction of Alternative A would have no permanent impact to open water.

The construction of Alternative A would temporarily disturb 0.87 acre of riparian habitat. This disturbance would be primarily due to the clearing of stream banks to provide access for construction of the new bridge and removal of the existing bridge. The disturbance would be minor in that the amount removed relative to the riparian vegetation (trees and shrubs) remaining in the ESL is proportionately small, and temporary until planted vegetation becomes established in the project's area of direct disturbance.

Construction of Alternative A could result in an increase in the amount of sediment transported following construction until disturbed areas have been stabilized or re-vegetated. Because disturbed banks would be reseeded immediately following construction, any excess sediment entering the water would be temporary and localized, and would be expected to become diluted to undetectable levels during the first few post-project storms.

Construction of Alternative A would temporarily increase suspended sediment and turbidity. This would be due to in-water construction activities such as the installation and removal of temporary piles and gravel pads, removal of exiting bridge piers, and the removal of riparian vegetation. These activities would be expected to disturb only a small portion of the river bed and cause only minor disturbances. It is predicted that sediment would dissipate approximately 300 feet downstream. Turbidity generated would be localized and short in duration.

The construction of Alternative A could cause a temporary change in behavior, injury, or mortality to individual salmonids. This would be due to pile driving activities and the potential use of gravel work pads. The placement of gravel work pads could injure or kill coho salmon when the pads are being placed into the channel. The construction of temporary trestles using an impact hammer could cause a behavioral change in fish, injure and/or kill coho salmon, due to excessive underwater sound pressure levels. Pile driving would be restricted to July 1 to August 31, when the least number of coho salmon are expected to be present in the project's area of direct disturbance, and high in-stream water temperatures during the summer months preclude the presence of fish in the main stem Klamath River. Therefore, the probability of incidental take of a coho

would likely be low since few if any salmonids are anticipated to be in the area of direct disturbance.

### ***Alternative B (Rehabilitate Existing Bridge)***

Construction of Alternative B would have more temporary impacts to open water habitat than the construction of Alternative A. This is due to the type and size of the existing bridge. The existing bridge is almost 200 feet longer than proposed new bridge. The existing bridge also has one pier located adjacent to the edge of the channel, and two piers located in the middle of the channel. In order to rehabilitate the existing bridge, each of the piers would need to be dewatered with a cofferdam or similar structure to perform the work, therefore, impacts to fisheries and riparian would be more severe than for the construction of alternative A which would have no piers in the water. The construction of Alternative B would also require more temporary piles to support the trestles. Therefore, the area of temporary impacts would be more than double of that of the construction of Alternative A. The disturbance would be primarily due to the enlargement of the existing two piers located in the middle of the channel to accommodate a wider bridge.

Construction of Alternative B would have the potential to result in additional water quality issues. Construction of alternative B requires the enlargement of the piers to support the wider superstructure which would require the pouring of cement in the vicinity of flowing water. Water that comes into contact with wet cement can have a negative impact to water quality and fish downstream of the project's area of direct disturbance. In addition, the removal of cofferdams when construction of the piers is completed, would have the potential to generate a larger load of suspended sediment and turbidity in the river.

Construction of Alternative B would require excavations to enlarge pier footings. Excavations would result in greater disturbance to the streambed, whereas, placement of temporary trestle piles in the channel for the construction of Alternative A would not require excavations within the streambed.

Construction of Alternative B would also disturb the river margins. The amount of temporary disturbance to the river margins would be greater than required with the implementation of Alternative A. A cofferdam or similar dewatering structure would have to be built to work on the pier that is located adjacent to the river margin, in addition to the vegetation removal in locations that conflict with the rehabilitation of the existing bridge.

### ***Alternative C (No-Build)***

The No-Build Alternative would not modify the Klamath River Bridge; therefore, no temporary construction impacts would occur.

## ***Permanent Impacts***

### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Alternative A would construct a bridge that has no in-water structures, i.e., it would span the water. Removing the existing bridge and its in-water piers would have a long-term benefit to the Klamath River by eliminating the potential for debris accumulation and reducing stream velocity. In-water maintenance of the existing piers (replacing RSP) to prevent scouring would no longer be required, resulting in less impact to stream habitat. Removing existing in-water piers would also provide an additional 0.01 acre (approximately) of exposed substrate/open water habitat.

The construction of Alternative A would permanently remove approximately 0.15 acre of riparian vegetation (trees and shrubs). The removal would be due to placement of new bridge abutments and piers. Though shade trees would be removed, the amount removed relative to the riparian vegetation remaining in the ESL is proportionately small.

The construction of Alternative A would permanently remove approximately 0.35 acre of shaded in-stream habitat provided by the existing bridge. However, with the new bridge in place, it could provide an overall 0.40 acre of shade, an increase of approximately 0.05 acre.

### ***Alternative B (Rehabilitate Existing Bridge)***

With the implementation of Alternative B, the enlargement of the existing pier footings and placement of RSP would result in a permanent loss of approximately 0.04 acre of streambed.

Additionally, due to the enlargement of the existing piers 2 and 5, which are located within the riparian zone approximately 0.05 acre of trees and shrubs would be permanently removed.

### ***Alternative C (No-Build)***

The No-Build Alternative would not modify the Klamath River Bridge; therefore, no permanent impacts would occur.

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

The following measures, as specified in the Biological Assessment provided to NOAA Fisheries would be implemented as part of the proposed project to avoid and minimize potential effects to listed salmonids:

- Below OHWM, access the work area by using temporary trestles or by placing a minimum 6-inch thick temporary work pad of uncrushed, rounded, natural river rock with no sharp edges that has been washed at least once to ensure it is free of oils, clay, debris, and organic matter ranging in size from 0.5 inch to 4 inches (spawning gravel). Before placing temporary work pads, cut riparian vegetation leaving a 2 inch stump to allow regeneration. Do not remove roots.

- During construction, a catchment system such as a platform, net, or tarp will be suspended under both the new bridge and the existing bridge to effectively catch all fallen debris and prevent it from entering the river.
- Construction activities associated with construction or removal of the bridges, including but not limited to dewatering, construction of temporary gravel work pad, construction of temporary trestles, and construction of temporary falsework will be conducted during daylight hours.
- If any lighting is necessary for equipment fueling or repair conducted during hours of darkness, it shall be directed away from the Klamath River.
- If necessary, all temporary exclusion structures (e.g. temporary sheet metal piling for cofferdams) used for temporary below OHWM exclusion will be placed between June 1 and October 31, may remain within the perimeter but above OHWM throughout the year and must be designed to withstand the forces of a 100-year flood.
- Below OHWM, temporary trestles may cross the river. Temporary trestles must be designed to withstand the forces of a 100-year flood, and may remain below OHWM and within the river throughout the year. Temporary trestle decking below OHWM must be removed between November 1 and May 31. Temporary trestle decking must not at any time become flooded by high water events.
- While temporary trestle piling is in place in the water, monitor piling and remove any accumulated debris at least daily, or more often as necessary, to protect the temporary structure.
- All other in-channel activities below OHWM (e.g., including but not limited to driving piles, etc.) will occur between June 1 and October 31. Driving piles will occur between July 1 and August 31.
- Motorized construction equipment will stay outside the open water perimeter.
- After construction is complete, all facilities installed by the Contractor during construction, including but not limited to falsework, temporary trestles, and temporary access road materials will be removed, excavated soil materials will be replaced and original ground contours will be restored outside the project cut/fill lines.
  - 1) When removing the gravel from temporary work pads leave bottom one foot in the channel to avoid impacts to the natural bed of the river.
- Modified or disturbed portions of the river and banks will be restored as nearly as possible to natural and stable contours.
- A Spill Prevention, Control, and Countermeasures (SPCC) Plan will be developed and included the SWPPP to minimize avoid the potential of a leak or spill of petroleum or hydraulic products within the channel, which will also include actions to take in the event of a spill or leak.

- If water drafting is needed for construction activities, water drafting from the Klamath River may take place from June 1 through October 31.
- Water drafting will require the implementation of NMFS (2001) water drafting specifications. Implementation consists of (but is not limited to):
  - 1) Diversion rate shall not exceed 10 percent of the surface flow and reduction in pool volume will not exceed 10 percent.
  - 2) Openings in perforated plate or woven wire mesh screens will not exceed 3/32 inches.
  - 3) Drafting operator shall actively observe the drafting operation, pumping shall cease and the screen cleaned if it becomes more than 10 percent obstructed by debris.
- Stream width, depth, velocity, and slope that provide upstream and downstream passage of adult and juvenile fish will be preserved according to current NMFS and CDFW guidelines and criteria or as developed in cooperation with NMFS and CDFW to accommodate site-specific conditions.
- A minimum of 80-foot wide section of the river shall be maintained between gravel pads throughout the duration of the construction for safe fish passage.
- A minimum of 20 foot wide section of the river shall be maintained between piles throughout the duration of construction for safe fish passage.
- If one or more salmonids are found dead or injured, all project activities shall cease and NMFS and CDFW shall be contacted immediately. Project activities may resume only after NMFS and CDFW have reasonable assurances that no additional mortalities of listed salmonids will occur.
- If chemical contamination has been detected, all project activities shall cease and NMFS, CDFW and CRWQCB shall be contacted immediately. Project activities may resume only after NMFS, CDFW, and CRWQCB have reasonable assurances that chemical contamination has ceased.
- When forming a gravel pad, the river rock will be loaded into the river from the top of the river banks. The river rock will be placed gradually along the edge of the river out until a pad is formed.
- Pile driving will take place either on dry ground outside the river channel perimeter or within an isolation casing or dewatered cofferdam.
- All pile driving activities will employ the smallest pile driver and minimum force necessary to complete the work.
- Prior to pile driving activities, a qualified biologist supplied by the contractor shall prepare and submit an underwater noise monitoring plan for review and approval by NOAA/NMFS.

- Acoustic monitoring will occur onsite. Regular decibel readings will be collected and documented during all pile driving activities to ensure noise thresholds are not exceeded. Underwater sound generated by pile driving (decibel readings) must adhere to the monitoring plan approved by NOAA/NMFS.
- When reporting the results of underwater sound generated by pile driving to NOAA/NMFS, a copy of the underwater noise monitoring plan and report will also be provided to Caltrans, Office of Environmental Services, North Region-Redding-R1.
- Placement of concrete or concrete slurry to construct bridge footings must be conducted in a dry area (e.g. within a dewatered cofferdam) to prevent contact of wet concrete with water. Concrete or concrete slurry will not come into direct contact with flowing water.
- Additional monitoring of the construction site during the first rain event that will result in overland flow will be required to minimize the effects of sedimentation. If erosion is noted, Caltrans shall take immediate measures to increase erosion control measures (i.e., placement of additional mulching, silt fences, straw wattles, etc.).

## **2.15 Invasive Species**

### ***Regulatory Setting***

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

### ***Affected Area***

Ruderal vegetation is present in areas subject to repeated disturbance, such as unpaved road, unpaved road shoulders, and steep slopes and embankments. Ruderal species include non-native, invasive, and noxious plants (or weeds). The most prevalent understory invasive plant in the project area is Himalayan blackberry. A total of four State-listed noxious weeds were observed within the project limits: yellow star-thistle, field bindweed, Saint John’s wort, and dyer’s woad.

### ***Environmental Consequences***

#### ***Alternatives A and B (Build New Bridge and Remove Existing Bridge and Rehabilitate Existing Bridge)***

Nonnative plant seeds could be transported to the project site from earthmoving and equipment such as backhoes, dump trucks, bulldozers, and hydro seed trucks. Project construction activities would disturb and remove native vegetation, which would

increase the opportunity for nonnative or invasive species to become established throughout the project area. If nonnative or invasive species are allowed to be transported to the project site or planted as part of revegetation activities, they could become dominant in the disturbed areas. These species would not provide the same cover and wildlife habitat as the existing riparian vegetation, resulting in potential impacts to species that use these habitat.

### ***Alternative C (No-Build)***

The No-Build Alternative would not modify the Klamath River Bridge; therefore, no impacts related to invasive species would occur.

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

No avoidance, minimization or mitigation measures are proposed, however the following standard special provisions would be included in the project:

- All earthmoving equipment to be used during project construction will be thoroughly cleaned before arriving on the project site.
- All seeding equipment (e.g., hydro seed trucks) will be thoroughly rinsed at least three times offsite prior to beginning seeding work.
- To avoid spreading nonnative species to off-site areas, all equipment will be thoroughly cleaned before leaving the site.
- Caltrans will not use any of the species on the California list of noxious weeds for erosion control or landscaping.
- The landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

## **2.16 Cumulative Impacts**

### ***Regulatory Setting***

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

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration

corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

### ***Projects Considered for the Cumulative Impacts Analysis***

For the purposes of addressing cumulative impacts in this document, other completed, proposed, and reasonably foreseeable projects in the project vicinity that have the potential to contribute to cumulative effects were researched. Sources of information included the 2004 Transportation Concept Report for State Route 263 prepared by Caltrans in conjunction with the Siskiyou County Regional Transportation Plan, Siskiyou County General Plan (year), City of Yreka General Plan (year), previously-prepared route concept reports, and known Caltrans projects. Relevant completed, planned, and approved projects in the project vicinity are listed in Table 2.16-1.

**Table 2.16-1 Surrounding Area Projects**

<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Timeline/Status</b>
Siskiyou 3 Bridges	Thompson Creek (PM 52.48), Seiad Creek (PM 60.17) and Beaver Creek (PM 88.26) bridges on SR 96 between Interstate 5 and the town of Happy Camp	Bridge widening and replacement of bridge rails	Start construction 2017
96 Culverts Project	State Route 96 from post mile 23.2 to 56.0	Drainage system rehabilitation	Start construction 2018
O'Neil Creek Fish Passage	State Route 96 at PM 65.4	Replace culvert with clear-span bridge and restore stream bed to make passable to fish.	Completed 2013
Fort Goff Creek Fish Passage	State Route 96 at PM 56.0	Replace culvert with clear-span bridge and restore stream bed to make passable to fish.	Completed 2014

### ***Cumulative Impact Analysis***

The proposed project would have no impact to the resources listed below; therefore, these resources are not considered in this cumulative impact analysis:

- Coastal Zone
- Community Cohesion
- Environmental Justice
- Energy
- Farmland
- Growth
- Paleontology
- Geology, soils, seismicity, and/or topography
- Traffic, pedestrian, and bicycle facilities
- Plant species
- Mineral resources
- Population and housing

Project-related impacts to the following resources would be negligible and/or construction-related and temporary in nature, and would not contribute to a cumulatively considerable impact; these resources are not considered in this cumulative impact analysis:

- Land Use
- Community Impacts
- Utilities/Emergency Services
- Hydrology and Floodplain
- Water Quality and Storm water
- Hazardous Waste/Material
- Air Quality
- Noise and Vibration
- Invasive Species

The following resources have been identified for consideration in the cumulative impact analysis for the Klamath River Bridge Draft EIR/EA and Programmatic Section 4(f) Evaluation:

- Visual/Aesthetics
- Cultural Resources
- Biological Resources
- Natural Communities
- Wetlands and Other Waters
- Special-Status Animal Species
- Threatened and Endangered Species

### ***Resource Study Area***

A Resource Study Area (RSA) is a defined, geographic area within which the resources included in the cumulative impact analysis have been analyzed. A separate RSA is defined for each resource, rather than a single study area for all resources combined, and the boundaries of RSAs for cumulative impact analyses are often more broad than the boundaries used for analyzing impacts directly related to the project. RSAs are defined based on the anticipated combined impacts of the proposed project and the other relevant projects listed in Table 2.16-1.

### ***Cumulative Impacts to Visual/Aesthetic Resources***

The RSA for visual/aesthetic impacts is defined as the area that may be potentially impacted from a visual perspective as a result of the proposed project and relevant projects included in Table 2.16-1, and consists of the river corridor and highway at the proposed project site, Fort Goff Fish Passage project site, and portions of the Siskiyou 96 Culverts project. The proposed project would not result in impacts to the visual character of areas outside of the RSA, thus would not contribute to a potential cumulative visual/aesthetic impact outside of the RSA.

Implementation of Alternative A or B would change the existing visual setting by removing or rehabilitating the existing bridge, including temporary removal of vegetation. Alternative C (No-Build) would result in no change, visual or otherwise, to the existing bridge. The completed Fort Goff Fish Passage project and portions of the proposed Siskiyou 96 Culverts project located within the RSA would also result in the removal of vegetation within the RSA and may temporarily alter views of motorists and those using the river. Areas within the proposed project limits and project limits of projects included in Table 2.16-1 disturbed during construction would be revegetated and there would be no permanent, visible change to viewers in the area.

Projects included in Table 2.16-1 would not contribute to a cumulative impact to visual/aesthetic resources; therefore there is no potential for a cumulative impact to visual/aesthetic resources as a result of the proposed project.

### ***Cumulative Impacts to Cultural Resources***

The RSA for impacts related to cultural resources is defined as the area that may be potentially impacted from a cultural resources perspective as a result of the proposed project and relevant projects included in Table 2.16-1, and consists of the proposed project site and other projects included in Table 2.16-1. This area is defined as the RSA for cultural resources because it consists of the area for which the presence/absence of historic resources are known. For this reason, and for the purposes of this cumulative impact analysis, the analysis of cumulative impacts related to cultural resources are limited to impacts related to bridges eligible for listing on the National Historic Register, as the existing Klamath River Bridge is a known historic resource eligible for listing on the National Historic Register. There are no other, known, eligible cultural resources in the project limits to which the proposed project would present the potential for a cumulative impact.

Alternative A would result in the removal of the existing historic bridge, and would therefore result in an adverse effect to a historic resource. The bridge rehabilitation with Alternative B also has the potential to result in an adverse effect to a historic structure. Alternative C (No-Build) would result in no impact to the existing bridge. In accordance with Section 4(f) of the Department of Transportation Act, all prudent and feasible measures to avoid and minimize harm to the bridge were considered for the proposed action. While the rehabilitation alternative may be feasible, the rehabilitation effort itself would likely affect the historic integrity of the structure, it would only postpone the need to replace the bridge, and other factors such as safety, operations, and cost make bridge replacement the prudent alternative.

With consideration of the projects included in Table 2.16-1, implementation of the proposed bridge replacement project (Alternative A), and the avoidance, minimization, and mitigation measures described in Section 2.5, the project would not contribute to either an individual or cumulatively considerable effect to historic bridges.

### ***Cumulative Biological Resources Impacts***

The RSA for analyzing cumulative biological impacts is defined as the Upper Klamath River Watershed and the Lower Klamath River Watershed. Analysis of cumulative, regional impacts to biological resources has been calculated at the watershed scale because this is both a common frame of reference in ecosystem management and it is a definable georegion allowing for comparative analysis. All projects listed in Table 2.16-1 are within the RSA for the cumulative impact analysis for biological resources.

### ***Natural Communities***

Project-related impacts to natural communities is limited to impacts to riparian habitat.

Alternative A would result in the temporary disturbance to riparian habitat totaling approximately 0.87 acre, and permanent impacts to riparian habitat totaling approximately 0.15 acre. However, the removal of existing Piers 2 and 6, and removal of the existing residence and outbuildings, would provide up to an additional 0.41 acre of riparian habitat within the project limits available for natural revegetation and establishment of riparian habitat. Alternative B would result in a temporary impact to riparian habitat of approximately 0.87 acre for construction access and trestle construction, and a permanent impact of approximately 0.15 acre to riparian habitat for increase in size to the pier footings. Alternative C (No-Build) would result in no change to the existing bridge, and no impact to riparian habitat. Projects listed in Table 2.16-1 would also result in temporary impacts related to construction activities and permanent impacts to riparian habitat of less than one acre due to placement of RSP and bridge footings.

Construction of the proposed project and the other projects listed in in Table 2.16-1 would not limit the function and value of riparian habitat within the RSA and along the Klamath River at approximately 632 acres within the watershed. Riparian habitat in the project area is confined to a narrow corridor due to topographical constraints, and riparian habitat is abundant elsewhere along the Klamath River. As outlined in Section

2.11.3, project impacts would be regulated through the CDFW regulatory permitting process, either through replanting on-site or through an alternative compensation program (permittee-responsible mitigation site, a bank, or an in-lieu fee program); permitting conditions are intended to result in no net loss of riparian habitat function and values. Other projects included in the cumulative impact analysis would also implement appropriate avoidance, minimization, and/or mitigation measures, in accordance with regulatory agency requirements and guidelines, as necessary, to achieve no net loss to riparian habitat and/or values. Therefore, the proposed project, in combination with relevant projects listed in Table 2.16-1, would not result in a cumulatively considerable impact to riparian habitat.

### ***Wetlands and Other Waters***

Alternative A would result in the temporary impact to Waters of the U.S. totaling approximately 0.05 acre, and a permanent increase in Waters of the U.S. of approximately 0.01 acre, due to the removal of piers from the Klamath River. Alternative B would result in a temporary impact to Waters of the U.S. of approximately 0.05 acre, and a permanent impact to Waters of the U.S. of approximately 0.01 acre. Alternative C would result in no change to the existing bridge, and no impact to wetlands and Other Waters. Projects listed in Table 2.16-1 would also result in temporary impacts to Waters of the U.S. related to construction activities and permanent impacts to Waters of the U.S. of less than 0.10 acre due to placement of RSP and bridge footings.

As outlined in Section 2.12.3, project impacts would be regulated through the ACOE and RWQCB regulatory permitting process; permitting conditions are intended to result in no net loss of wetland and “other waters” function and values. Therefore, the proposed project would not contribute to a cumulative impact to wetlands and “other waters.” It is assumed that other projects included in the cumulative impact analysis would implement appropriate avoidance, minimization, and/or mitigation measures, in accordance with USACE, RWQCB requirements and guidelines, as necessary.

### ***Cumulative Impacts to Special-Status Animal Species***

As discussed in Section 2.13.3, the proposed project is anticipated to impact special-status animal species. Cumulative impacts of the proposed project and other projects within the RSA to special-status animal species that may be impacted by the proposed project are discussed in this section.

#### ***Amphibian Species***

Alternatives A and B would result in temporary, construction-related indirect impacts to the foothill yellow-legged frog (*Rana boylei*), primarily related to the temporary impact to breeding and basking habitat. Alternative C would have no impact to breeding and basking habitat for the foothill yellow-legged frog. Construction of Alternative A or B and the other projects listed in in Table 2.16-1 would not substantially limit the availability of breeding and basking habitat for foothill yellow-legged frog within the RSA, as habitat is abundant along the Klamath River. In addition, implementation of the proposed avoidance and minimization measures outlined in Section 2.14.4 would reduce the

potential for project-related impacts to breeding and basking habitat for the foothill yellow-legged frog. It is assumed that other projects included in the cumulative impact analysis would implement appropriate avoidance, minimization, and/or mitigation measures, in accordance with regulatory agency requirements and guidelines, as necessary.

Therefore, the proposed project, in combination with relevant projects listed in Table 2.16-1, would not result in a cumulatively considerable impact to breeding and basking habitat for the foothill yellow-legged frog.

#### Raptor and Migratory Nesting Bird Species

Alternatives A and B could result in temporary, construction-related, indirect impacts to four special-status bird species, the golden eagle (*Aquila chrysaetos*), great blue heron (*Ardea Herodias*), American peregrine falcon (*Falco peregrinus anatum*), and bald eagle (*Haliaeetus leucocephalus*), primarily related to the potential temporary disruption of normal foraging and movement patterns during construction activities due to noise. However, a considerable amount of habitat for foraging and movement would remain available during construction, and the proposed project would not impact availability of this habitat at a local or regional level. Implementation of the standard Caltrans measures outlined in Section 2.13.4 would avoid take and reduce project-related impacts temporary impacts to special-status bird species. Projects listed in Table 2.16-1 would likely contribute to similar, temporary, indirect impacts to special-status bird species. However, as stated above, the type of habitat associated with foraging and movement for special-status bird species is abundant on a local and regional level and would only be temporarily disturbed during construction activities. In addition, projects included in Table 2.21-1 are not expected to occur concurrently with the proposed project. Additionally, it is assumed that other projects included in the cumulative impact analysis would implement similar avoidance, minimization and/or mitigation measures, as appropriate, if development resulted in impacts to special-status bird species.

No cumulatively considerable impacts to special-status bird species are anticipated due to the implementation of the proposed project and development of projects listed in Table 2.16-1.

#### Fish Species

Alternatives A and B would result in temporary, indirect, construction-related impacts to seven special-status fish species, the Klamath largescale sucker (*Catostomus snyderi*), Klamath River Lamprey (*Entosphenus similis*), Pacific Lamprey (*Lampetra tridentata*), Southern Oregon/Northern California Coasts coho salmon (*Oncorhynchus kisutch*), Klamath Mountain Province steelhead (*Oncorhynchus mykiss*), Klamath Mountain Province winter steelhead trout (*Oncorhynchus mykiss irideus*), and Upper Klamath-Trinity River Chinook salmon-Fall run (*Oncorhynchus tshawtscha*), primarily related to the potential disruption of normal foraging and movement patterns during construction activities due to noise. However, a considerable amount of habitat for foraging and movement would remain within the project's watersheds, and the proposed project would not substantially fragment availability of this type of habitat at a local or regional

level during construction activities. Additionally, implementation of the proposed avoidance, minimization, and mitigation measures outlined in Section 2.14.4 would reduce project-related impacts to special-status fish species and avoid take of special-status fish species. Projects listed in Table 2.16-1 would likely contribute to similar, temporary, indirect impacts to habitat for special-status fish species. However, as stated above, the type of habitat associated with foraging and movement for special-status fish species is abundant on a local and regional level and would only be temporarily disturbed during construction activities. In addition, projects included in Table 2.16-1 are not expected to occur concurrently with the proposed project. It is assumed that other projects included in the cumulative impact analysis would implement similar avoidance, minimization, and/or mitigation measures, as appropriate, if development resulted in impacts to special-status fish species.

No cumulatively considerable impacts to special-status fish species are anticipated due to the implementation of the proposed project and the development of projects listed in Table 2.16-1. Therefore, the proposed project would not contribute to a cumulatively considerable impact to special-status fish species.

### Bat Species

Alternatives A and B would result in temporary, indirect, construction-related impacts to seven special-status bat species, the pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), Western mastiff bat (*Eumops perotis californicus*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), and Yuma myotis (*Myotis yumanensis*), primarily related to the temporary disturbance of roosting and foraging habitat during construction activities. However, a considerable amount of roosting and foraging habitat would remain available within the project's watersheds, and the proposed project would not substantially fragment day or night roosting or foraging habitat at a local or regional level during construction activities. Additionally, implementation of the standard Caltrans measures and proposed mitigation measures (construct habitat in new bridge) outlined in Section 2.13.4 would reduce project-related impacts to special-status bat species and avoid take of special-status bat species. Projects listed in Table 2.16-1 would likely contribute to similar, temporary, indirect impacts to roosting and foraging habitat for special-status bat species. However, as stated above, the type of habitat associated with roosting and foraging habitat for special-status bat species is abundant on a local and regional level and would only be temporarily impacted during construction activities. In addition, projects included in Table 2.21-1 are not expected to occur concurrently with the proposed project. It is assumed that other projects included in the cumulative impact analysis would implement similar avoidance, minimization, and/or mitigation measures, as appropriate, if development resulted in impacts to special-status bat species.

No cumulatively considerable impacts to special-status bat species are anticipated due to the implementation of the proposed project and the development of projects listed in

Table 2.16-1. Therefore, the proposed project would not contribute to a cumulatively considerable impact to special-status bat species.

### Reptile Species

The proposed project would result in temporary, indirect, construction-related impacts to the western pond turtle (*Actinemys marmorata*), including the removal of habitat during construction activities. However, a considerable amount of habitat would remain available within the project's watersheds, and the proposed project would not substantially fragment available habitat at a local or regional level during construction activities. Additionally, implementation of the proposed avoidance, minimization, and mitigation measures outlined in Section 2.13.4 would reduce project-related impacts to the western pond turtle and avoid take of the western pond turtle. Projects listed in Table 2.16-1 would likely contribute to similar, temporary, indirect impacts to habitat for the western pond turtle. However, as stated above, the type of habitat associated with the western pond turtle is abundant on a local and regional level and would only be temporarily disturbed during construction activities. In addition, projects included in Table 2.16-1 are not expected to occur concurrently with the proposed project. It is assumed that other projects included in the cumulative impact analysis would implement similar avoidance, minimization, and/or mitigation measures, as appropriate, if development resulted in impacts to the western pond turtle.

No cumulatively considerable impacts to the western pond turtle are anticipated due to the implementation of the proposed project and the development of projects listed in Table 2.16-1. Therefore, the proposed project would not contribute to a cumulatively considerable impact to the western pond turtle.

### Threatened and Endangered Species

Alternatives A and B would result in temporary, indirect, construction-related impacts to the Southern Oregon/Northern California Coasts (SONCC), Evolutionary Significant Unit (ESU) coho salmon (*Oncorhynchus kisutch*), primarily related to the removal of riparian vegetation and potential disruption of normal foraging and movement patterns during construction activities due to noise. However, a considerable amount of habitat suitable for foraging and movement would remain within the project's watersheds during construction activities, and the proposed project would not substantially fragment habitat suitable for foraging and movement at a local or regional level and would not lead to a substantial amount of incidental take of coho salmon. Additionally, implementation of the proposed avoidance, minimization, and mitigation measures outlined in Section 2.14.4 would reduce project-related impacts to coho salmon and avoid take of coho salmon. Projects listed in Table 2.16-1 would likely contribute to similar, temporary, indirect impacts to habitat suitable for foraging and movement for coho salmon. However, as stated above, this type of habitat associated coho salmon is abundant on a local and regional level and would only be temporarily unavailable during construction activities. In addition, projects included in Table 2.16-1 are not expected to occur concurrently with the proposed project. It is assumed that other projects included in the

cumulative impact analysis would implement similar avoidance, minimization, and/or mitigation measures, as appropriate, if development resulted in impacts to coho salmon.

No cumulatively considerable impacts to coho salmon are anticipated due to the implementation of the proposed project and the development of projects listed in Table 2.16-1. Therefore, the proposed project would not contribute to a cumulatively considerable impact to coho salmon.

# Chapter 3 California Environmental Quality Act (CEQA) Evaluation

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## 3.1 Determining Significance Under CEQA

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (USC) 327. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

## 3.2 Effects of the Proposed Project

This section of the document discusses the effects of the proposed project on the environmental factors presented in Chapter 2 and provides corresponding CEQA significance determinations. All significance determinations were made prior to the consideration of avoidance, minimization, and/or mitigation measures. Refer to Appendix A for the CEQA Checklist.

### **3.2.1 No Effects**

Refer to the discussion at the beginning of Chapter 2 for environmental factors for which there would be no effect.

### **3.2.2 Less-Than-Significant Effects of the Proposed Project**

#### Land Use

Neither Alternative A nor B would result in significant effects relative to existing and future land use, wild and scenic rivers, or parks and recreation. A standard Caltrans Traffic Management Plan and public outreach during construction would provide information related to river access and traffic conditions while construction is in progress. See Section 2.1 for further discussion on land use.

#### Community Impacts

Neither Alternative A nor B would result in significant effects relative to community attributes. Although the proposed Alternative A would displace one residence, located on the north bank of the Klamath River, it would not be considered to be a significant effect. Relocation assistance payments and counseling would be provided to the current tenant in accordance with state and federal laws governing relocations. See Section 2.2 for further discussion on community impacts.

#### Utilities/Emergency Services

Although there would be the potential minor delays and short service interruptions with the implementation of Alternative A, during construction, the proposed project would not result in a significant effect relative to utilities or emergency services. See Section 2.3 for further discussion on utilities and emergency services, and Section 3.2.3 for effects related to Alternative B.

#### Visual/Aesthetics

Although there would be some vegetation removal, access road construction (Alternatives A and B), bridge removal and replacement (Alternative A), neither alternative would result in significant effects visually or aesthetically. See Section 2.4 for further discussion.

#### Hydrology/Floodplain

Neither Alternative A nor B would result in significant effects relative to hydrology or the floodplain given the potential that the stream could temporarily rise approximately one foot while temporary work trestles and cobble pads are in place. See Section 2.5 for further discussion on hydrology and floodplain.

## Hazardous Waste/Materials

Hazardous waste investigations (Initial Site Assessment) revealed minor issues associated with both Alternatives A and B, but these issues are not considered significant effects related to hazardous waste. See Section 2.8 for further discussion on hazardous waste.

## Air Quality

Both Alternatives A and B would result in some short-term, intermittent construction-related effects to air quality, such as increased particulate emissions due to earth disturbance, demolition activities, and operation of combustion engines. These effects would be minor and would not violate local or regional air quality standards. See Section 2.9 for further discussion on air quality.

## Noise/Vibration

Neither Alternative A nor B would result in significant effects relative to noise and vibration. Noise generated by construction activities would be a function of the noise levels generated by individual pieces of construction equipment and the operation at hand. Considering the lack of and distance away from sensitive receptors, temporary effects related to noise and vibration would be negligible. See Section 2.10 for further discussion on noise and vibration.

## Natural Communities

Neither Alternative A nor B would result in a significant effect relative to natural communities. The proposed bridge replacement (Alternative A) would result in a minor effect to riparian habitat, resulting in a permanent estimated loss totaling approximately 0.15 acres, and temporary disturbance totaling approximately 0.87 acre. These impacts would result from vegetation removal in locations that conflict with the proposed new bridge structure, and in locations where temporary access roads, pads, etc., would be needed for construction and demolition operations. Removal of the existing bridge piers and the residential structure and outbuildings could potentially provide up to an additional 0.41 acre of area where riparian vegetation can grow. The total estimated riparian area for the entire Klamath River watershed is approximately 632 acres, with approximately 1.5 acres existing within the Environmental Study Limits (ESL). Therefore, the permanent loss of approximately 0.15 acre of riparian habitat would be nominal. The Bridge Rehabilitation Alternative (Alternative B) would result in slightly more temporary and permanent impacts to riparian habitat than that of Alternative A based on construction access and staging requirements, but the effects resulting from Alternative B would also be considered minor. See Chapter 2.11 for further discussion on natural communities.

## Wetlands/Other Waters

The proposed project would not result in a significant effect relative to wetlands or other waters. Alternatives A and B would both result in approximately 0.05 acre of temporary

impacts to open waters. Alternative A, once completed, would result in a net increase of approximately 0.01 acre of additional open stream habit due to the removal of existing bridge piers. Alternative B would result in the permanent loss of approximately 0.01 acre of open stream habitat due to enlargement of existing foundations. No wetlands are present within the project area. See Section 2.12 for further discussion on wetlands and other waters.

### Animal Species

#### *Raptors and Migratory Bird Species*

Neither Alternative A nor B would result in a significant effect to raptors or bird species. Construction of Alternative A and B would temporarily impact approximately 0.87 acre of vegetation and permanently remove approximately 0.15 acre of vegetation of potential, low quality nesting and foraging habitat, which would be negligible considering the amount of vegetation in the project area. See Section 2.13 for further discussion on raptors and migratory bird species.

### Invasive Species

Neither Alternative A nor B would result in a significant effect related to invasive species. Invasive plant species are already present within the project area. The implementation of Caltrans standard specifications and BMPs related to revegetation and erosion control would ensure that there are no adverse effects related to invasive species. See Section 2.15 for further discussion on invasive species.

## **3.2.3 Significant Environmental Effects of the Proposed Project**

### Utilities/Emergency Services

Alternative B would require closure of the existing bridge and a lengthy detour while the existing bridge is being rehabilitated and retrofitted, which could affect emergency services and response times in the region. If Alternative B were implemented, additional planning and coordination among agencies would be required to ensure that adequate emergency response time and coverage was maintained in the region during closure of the existing bridge. See Section 2.3 for further discussions on utilities and emergency services.

### Animal Species

#### *Foothill Yellow-Legged Frog (FYLF)*

Although implementation of either build alternative would not be expected to result in a take of FYLF, nor would the project result in a loss of suitable FYLF habitat, both Alternatives A and B have the potential to directly affect the FYLF. Prior to the start of construction, a qualified biologist would survey suitable FYLF aquatic and upland habitats, to ensure no FYLF are present. If FYLF are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist. See Section 2.13 for further discussion on FYLF.

### *Fish*

The temporary in-water work necessary to construct both Alternatives A and B has the potential to directly and indirectly affect fish. Restrictions set forth by National Marine Fisheries Services will be fully implemented as part of construction to avoid and minimize potential impacts to coho salmon and will by extension protect other aquatic species. See Section 2.13 for further discussion on fish and Section 2.14 for the applicable avoidance and minimization measures.

### *Bats*

Because large numbers of bats are known to inhabit expansion joints in the existing bridge, the removal of the existing bridge (Alternative A) has the potential to affect bat-occupied day, night, and maternity roosting habitat. The impact would be temporary and short-term in duration, as the new bridge would be designed to provide approximately 71.25 cubic feet of new roost habitat. Construction of Alternative B could result in greater direct impacts to bats because more noise and vibration from the rehabilitation effort would occur while the bats are present within the structure. This may cause bats to abandon their roosts sites. Bats would have less time to acclimate to construction disturbances. Bats would have less roosting habitat to use when a portion of the existing bridge is excluded for construction and bats would have to travel to a different location which would consume more of their energy. Although, neither Alternative A nor B are expected to result in take of bats, avoidance and minimization measures would be required. See Section 2.13 for further discussion on bats and corresponding avoidance and minimization measures.

### *Northwestern Pond Turtle (NWPT)*

Although the implementation of either build alternative would not be expected to result in a take of NWPT, nor would the project result in a loss of suitable NWPT habitat, both Alternatives A and B have the potential to effect the NWPT. Prior to the start of construction, a qualified biologist would survey suitable NWPT aquatic and upland habitats, to ensure no NWPT are present. If turtles are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist. See Section 2.13 for further discussion on NWPT.

### Threatened/Endangered Species

The temporary in-water work necessary to construct both Alternatives A and B has the potential to affect salmonids. Caltrans will implement the measures listed in Section 2.14, as specified in the Biological Assessment to avoid and minimize potential effects to salmonids. See Section 2.14 for further discussion on threatened and endangered species.

### CEQA Mandatory Findings of Significance A (Appendix A)

A.) The proposed removal of the Klamath River Bridge (Alternative A) would result in an adverse effect to a historical resource. Removal of the bridge would constitute a substantial adverse change in the significance of the resource and elimination of an

important example of a major period of California history. See Chapter 2.5 for further discussion on cultural resources.

### **3.2.4 Unavoidable Significant Environmental Effects**

By removing the bridge (Alternative A), impacts could not be mitigated to a level of less than significant.

## **3.3 Mitigation Measures for Significant Impacts under CEQA**

CEQA defines mitigation as avoiding, minimizing, rectifying, reducing, and/or compensating for a significant impact. This section includes the proposed mitigation measures for each significant impact listed above. The avoidance and minimization measures included in Chapter 2 associated with environmental factors for which the proposed project would have a less than significant impact are considered standard construction, design, and/or stewardship features, and are not considered CEQA “mitigation,” thus they are not listed in this section.

### Utilities/Emergency Services

- If Alternative B were implemented, additional planning and coordination among agencies would be required to ensure that adequate emergency response time and coverage was maintained in the region during closure of the existing bridge.

### Cultural

Mitigation for the removal of the Klamath River Bridge (Alternative A) includes the following proposal:

- Preparation of a permanent record of the Klamath River Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.
- Construction and installation of an interpretive display panel as well as the placement of a piece of the original Klamath River Bridge railing all to be located at the Randolph Collier Safety Roadside Rest Area approximately two miles east of the project location. The display would include photographs and information pertaining to the historic bridge.
- Creation and construction of a pamphlet style information booklet filled with illustrations and information on this and other local bridges and areas of interest. To be made available or handed out at the Yreka Preservation Office and/or the Randolph Collier Safety Roadside Rest Area information center.
- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA

Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Chris Quiney, District 2 Environmental Branch Chief so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

## Animal Species

### *Foothill Yellow-Legged Frog (FYLF)*

- Prior to the start of construction, a qualified biologist would survey suitable FYLF aquatic and upland habitats, to ensure no FYLF are present. If turtles are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.

### *Fish*

- Measures to avoid and minimize potential impacts to Threatened and Endangered Species (Coho salmon) are listed in Section 2.14.4. These restrictions, agreed to by NMFS, would also extend to protect the fish species listed in Table 2.13-1.

### *Bats*

- The contractor would supply a qualified biologist that specializes in bats to provide guidance and direction on excluding bats that inhabit existing structures slated for removal or that are within close proximity of construction activities.
- The contractor supplied biologist would develop a plan to sequence bat exclusion, bridge construction and demolition. Bats must not be present in the existing bridge when demolition begins. The new bridge would be available to bats before existing habitat is removed. The Contractor would submit the sequencing plan to Caltrans for authorization and would not start work until the plan is authorized.
- Bat exclusion placement would be performed between September 1 and March 31.
- Bats would not be disturbed directly or indirectly at any time.
- Do not park or operate internal combustion engines or equipment (e.g., generators, pumps) or vehicles under the existing bridge.

### *Northwestern Pond Turtle (NWPT)*

- Prior to the start of construction, a qualified biologist would survey suitable NWPT aquatic and upland habitats, to ensure no NWPT are present. If turtles are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.
- Commitments listed in Section 2.14.4 for the T/E species to protect coho salmon will also protect NWPT.

## Threatened/Endangered Species

To avoid and minimize potential impacts to listed fish aquatic species that may result from the implementation of Alternative A and B, the following avoidance and minimization measures would be included:

- Below OHWM, access the work area by using temporary trestles or by placing a minimum 6-inch thick temporary work pad of uncrushed, rounded, natural river rock with no sharp edges that has been washed at least once to ensure it is free of oils, clay, debris, and organic matter ranging in size from 0.5 inch to 4 inches (spawning gravel). Before placing temporary work pads, cut riparian vegetation leaving a 2 inch stump to allow regeneration. Do not remove roots.
- During construction, a catchment system such as a platform, net, or tarp will be suspended under both the new bridge and the existing bridge to effectively catch all fallen debris and prevent it from entering the river.
- Construction activities associated with construction or removal of the bridges, including but not limited to dewatering, construction of temporary gravel work pad, construction of temporary trestles, and construction of temporary falsework will be conducted during daylight hours.
- If any lighting is necessary for equipment fueling or repair conducted during hours of darkness, it shall be directed away from the Klamath River.
- If necessary, all temporary exclusion structures (e.g. temporary sheet metal piling for cofferdams) used for temporary below OHWM exclusion will be placed between June 1 and October 31, may remain within the perimeter but above OHWM throughout the year and must be designed to withstand the forces of a 100-year flood.
- Below OHWM, temporary trestles may cross the river. Temporary trestles must be designed to withstand the forces of a 100-year flood, and may remain below OHWM and within the river throughout the year. Temporary trestle decking below OHWM must be removed between November 1 and May 31. Temporary trestle decking must not at any time become flooded by high water events.
- While temporary trestle piling is in place in the water, monitor piling and remove any accumulated debris at least daily, or more often as necessary, to protect the temporary structure.
- All other in-channel activities below OHWM (e.g., including but not limited to driving piles, etc.) will occur between June 1 and October 31. Driving piles will occur between July 1 and August 31.
- Motorized construction equipment will stay outside the open water perimeter.
- After construction is complete, all facilities installed by the Contractor during construction, including but not limited to falsework, temporary trestles, and temporary access road materials will be removed, excavated soil materials will be

replaced and original ground contours will be restored outside the project cut/fill lines.

- 2) When removing the gravel from temporary work pads leave bottom one foot in the channel to avoid impacts to the natural bed of the river.
- Modified or disturbed portions of the river and banks will be restored as nearly as possible to natural and stable contours.
  - A Spill Prevention, Control, and Countermeasures (SPCC) Plan will be developed and included the SWPPP to minimize avoid the potential of a leak or spill of petroleum or hydraulic products within the channel, which will also include actions to take in the event of a spill or leak.
  - If water drafting is needed for construction activities, water drafting from the Klamath River may take place from June 1 through October 31.
  - Water drafting will require the implementation of NMFS (2001) water drafting specifications. Implementation consists of (but is not limited to):
    - 4) Diversion rate shall not exceed 10 percent of the surface flow and reduction in pool volume will not exceed 10 percent.
    - 5) Openings in perforated plate or woven wire mesh screens will not exceed 3/32 inches.
    - 6) Drafting operator shall actively observe the drafting operation, pumping shall cease and the screen cleaned if it becomes more than 10 percent obstructed by debris.
  - Stream width, depth, velocity, and slope that provide upstream and downstream passage of adult and juvenile fish will be preserved according to current NMFS and CDFW guidelines and criteria or as developed in cooperation with NMFS and CDFW to accommodate site-specific conditions.
  - A minimum of 80 foot wide section of the river shall be maintained between gravel pads throughout the duration of the construction for safe fish passage.
  - A minimum of 20 foot wide section of the river shall be maintained between piles throughout the duration of the construction for safe fish passage.
  - If one or more salmonids are found dead or injured, all project activities shall cease and NMFS and CDFW shall be contacted immediately. Project activities may resume only after NMFS and CDFW have reasonable assurances that no additional mortalities of listed salmonids will occur.
  - If chemical contamination has been detected, all project activities shall cease and NMFS, CDFW and CRWQCB shall be contacted immediately. Project activities may resume only after NMFS, CDFW, and CRWQCB have reasonable assurances that chemical contamination has ceased.

- When forming a gravel pad, the river rock will be loaded into the river from the top of the river banks. The river rock will be placed gradually along the edge of the river out until a pad is formed.
- Pile driving will take place either on dry ground outside the river channel perimeter or within an isolation casing or dewatered cofferdam.
- All Pile driving activities will employ the smallest pile driver and minimum force necessary complete the work.
- Prior to pile driving activities, a qualified biologist supplied by the contractor shall prepare and submit an underwater noise monitoring plan for review and approval by NOAA/NMFS.
- Acoustic monitoring will occur onsite. Regular decibel readings will be collected and documented during all pile driving activities to ensure noise thresholds are not exceeded. Underwater sound generated by pile driving (decibel readings) must adhere to the monitoring plan approved by NOAA/NMFS.
- When reporting the results of underwater sound generated by pile driving to NOAA/NMFS, a copy of the underwater noise monitoring plan and report will also be provided to Caltrans, Office of Environmental Services, North Region-Redding-R1.
- Placement of concrete or concrete slurry to construct bridge footings must be conducted in a dry area (e.g. within a dewatered cofferdam) to prevent contact of wet concrete with water. Concrete or concrete slurry will not come into direct contact with flowing water.
- Additional monitoring of the construction site during the first rain event that will result in overland flow will be required to minimize the effects of sedimentation. If erosion is noted, Caltrans shall take immediate measures to increase erosion control measures (i.e., placement of additional mulching, silt fences, straw wattles, etc.).

### **3.4 Climate Change**

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) make up the largest source of GHG-emitting sources. The dominant GHG emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change: "Greenhouse Gas Mitigation" and "Adaptation." "Greenhouse Gas Mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>1</sup>.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing travel activity, 3) transitioning to lower GHG-emitting fuels, and 4) improving vehicle technologies/efficiency. To be most effective all four strategies should be pursued cooperatively.<sup>2</sup>

## **Regulatory Setting**

### *State*

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

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order S-3-05 (EO) (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020, and 3) 80 percent below the year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32 (AB 32), Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

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<sup>1</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

<sup>2</sup> [http://www.fhwa.dot.gov/environment/climate\\_change/mitigation/](http://www.fhwa.dot.gov/environment/climate_change/mitigation/)

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

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

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

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board (CARB) to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

### *Federal*

Although climate change and GHG reduction are a concern at the federal level; currently no regulations or legislation have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level GHG analysis.<sup>3</sup> [FHWA](#) supports the approach that climate change considerations should be integrated throughout the transportation decision-making process, from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies outlined by FHWA to lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

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<sup>3</sup> To date, no national standards have been established regarding mobile source GHGs, nor has U.S. EPA established any ambient standards, criteria or thresholds for GHGs resulting from mobile sources.

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the “National Clean Car Program” and EO 13514 - *Federal Leadership in Environmental, Energy and Economic Performance*.

Executive Order 13514 (October 5, 2009): This order is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also direct federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

U.S. EPA’s authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing [Clean Air Act](#) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, U.S. EPA finalized an [endangerment finding](#) in December 2009. Based on scientific evidence it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court’s interpretation of the existing Act and EPA’s assessment of the scientific evidence that form the basis for EPA’s regulatory actions. U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for [new cars and light-duty vehicles](#) in April 2010.<sup>4</sup>

The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the [first-ever GHG regulations for heavy-duty engines and vehicles](#), as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, U.S. EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards this program is projected to save approximately four billion barrels of oil and two billion metric tons of GHG emissions.

The complementary U.S. EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi-trucks), heavy-duty pickup trucks

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<sup>4</sup> <http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq>

and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut greenhouse gas emissions and domestic oil use significantly. This program responds to [President Barack Obama's 2010 request](#) to jointly establish greenhouse gas emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO2 emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy duty vehicles.

## Project Analysis

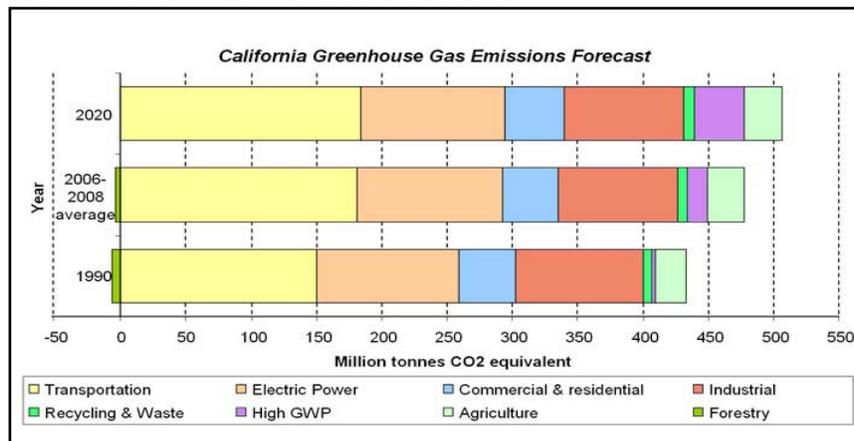
An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.<sup>5</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 to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan mandated by AB 32 includes the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, the ARB released the GHG inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

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<sup>5</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).

**Figure 5: California Greenhouse Gas Forecast**



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

The Department and its parent agency, the 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, the Department has created and is implementing the [Climate Action Program at Caltrans](#) that was published in December 2006.<sup>6</sup>

The purpose of the proposed project is to provide a road crossing that meets modern highway design standards and accommodate interregional transportation needs. The proposed project is not capacity increasing, therefore, there is not an anticipated increase in operational emissions. However, during construction, there will be a temporary increase in emissions for the duration of construction.

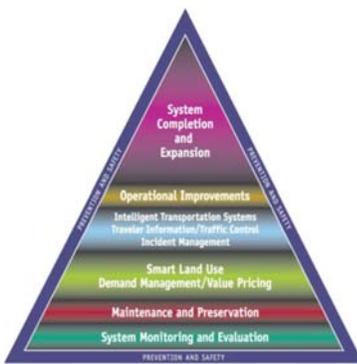
### Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by 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 better traffic management during construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

<sup>6</sup> Caltrans Climate Action Program is located at the following web address: [http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)

## CEQA Conclusion

While construction would result in a slight increase in GHG emissions during construction, it is anticipated that the project would 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 discussed below.



**Figure 6: Mobility Pyramid**

## Greenhouse Gas Reduction Strategies

The Department continues to be involved on the Governor's Climate Action Team as the ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from Former Governor Arnold Schwarzenegger's Strategic Growth Plan for California. The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in GHG emissions, while accommodating growth in population and the economy. The Strategic Growth Plan relies on a complete systems approach to attain CO<sub>2</sub> reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in Figure 5: The Mobility Pyramid.

The Department 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. The Department works closely with local jurisdictions on planning activities, but does not have local land use planning authority. The Department also assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; the Department is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. EPA and ARB.

The Department is also working towards enhancing the State's transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375 (Steinberg 2008), SB 391 (Liu 2009) requires the State's long-range transportation plan to meet California's climate change goals under Assembly Bill (AB) 32.

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas (GHG) emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system.

The purpose of the CTP is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the CTP 2040 will identify the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the State's transportation needs.

Table 1 summarizes the Department and statewide efforts that it is implementing to reduce GHG emissions. More detailed information about each strategy is included in the [Climate Action Program at Caltrans](#) (December 2006).

**Table 3.5-1 Climate Change/CO<sub>2</sub> Reduction Strategies**

Strategy	Program	Partnership		Method/Process	Estimated CO <sub>2</sub> Savings Million Metric Tons (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements & Intelligent Transportation System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	0.07	2.17
Mainstream Energy & GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, ARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	.0045	0.0065 0.045 0.0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	0.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries	2.5 % limestone cement mix	1.2	4.2	
			25% fly ash cement mix	0.36	3.6	
			> 50% fly ash/slag mix			
Goods Movement	Office of Goods Movement	Cal EPA, ARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.18

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013)<sup>7</sup> provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

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

- According to Caltrans Standard Specifications, the contractor must comply with all of the Siskiyou County Air Quality Management District rules, ordinances, and regulations regarding to air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.
- Trees removed would be replaced at a ratio of 2:1.
- The new bridge would provide 8-foot wide shoulders accommodating and promoting increased bicycle and pedestrian traffic.

### Adaptation Strategies

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

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011<sup>8</sup>, outlining the

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<sup>7</sup> [http://www.dot.ca.gov/hq/tpp/offices/orip/climate\\_change/projects\\_and\\_studies.shtml](http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/projects_and_studies.shtml)

<sup>8</sup> <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

federal government's progress in expanding and strengthening the Nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provides an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks.

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

On November 14, 2008, then-Governor 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.

In addition to addressing projected sea level rise, the California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop [The California Climate Adaptation Strategy](#) (Dec 2009)<sup>9</sup>, which summarizes the best-known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to [EO S-13-08](#) that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including the California Environmental Protection Agency; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

The National Academy of Science was directed to prepare a Sea Level Rise Assessment Report<sup>10</sup> to recommend how California should plan for future sea level rise. The report was released in June 2012 and included:

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<sup>9</sup> <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

<sup>10</sup> *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: [http://www.nap.edu/catalog.php?record\\_id=13389](http://www.nap.edu/catalog.php?record_id=13389).

- Relative sea level rise projections for California, Oregon, and Washington taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates.
- The range of uncertainty in selected sea level rise projections.
- A synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems.
- A discussion of future research needs regarding sea level rise.

In 2010, interim guidance was released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise. Subsequently, CO-CAT updated the Sea Level Rise guidance to include information presented in the National Academies Study.

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

All projects that have filed a Notice of Preparation (NOP) as of the date of the EO S-13-08, and/or are programmed for construction funding through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone, elevation change in the river due to proposed upstream dam removal is negligible and direct impacts to transportation facilities due to projected sea level rise are not expected.

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

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 needed 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.

# Chapter 4 Comments and Coordination

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Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings, interagency coordination meetings, and the issuance and distribution of a Notice of Preparation (NOP). This chapter summarizes the results of the Department's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

## 4.1 Responsible Agencies Under CEQA

Because of their jurisdiction by law, the following State agencies or officers will issue permits or approval for the project:

- California Department of Fish and Wildlife (CDFW)
- California State Historic Preservation Officer (SHPO)
- Central Valley Regional Water Quality Control Board (RWQCB)

## 4.2 Other Jurisdictional Agencies

Although not Responsible or Trustee agencies under CEQA, the following federal agencies are considered jurisdictional agencies because they will issue permits or approvals for the project:

- United States Army Corps of Engineers (USACE)
- United States Fish and Wildlife Service (USFWS)
- National Oceanic and Atmospheric Association (NOAA)

## 4.3 Notice of Preparation

A NOP was sent to the State Clearinghouse on November 11, 2015. The purpose of the NOP was to solicit participation from responsible and trustee agencies to determine the scope of the Environmental Impact Report (EIR) for the project. The following agency responded in writing to the NOP. Their letter along with Caltrans response is included in Appendix G.

Comments were received from the State Lands Commission and are summarized in Table 4.3-1.

**Table 4.3-1 Comments Received on the Notice of Preparation**

<b>Agency</b>	<b>Date</b>	<b>Issues/Concerns</b>
California State Lands Commission	December 7, 2015	Requested a feasibility study be performed and discussed the subject of current public access as well as the potential for new possible access that could be provided.

#### **4.4 Agency Consultation**

The following is current and continuing agency consultation:

- Consultation took place with The National Park Service and they concurred the project would have no effect to the Klamath's designation or its Outstanding Remarkable Values as a wild and scenic river.
- Ongoing formal consultation with National Oceanic Atmospheric Association (NOAA) fisheries. A Biological Assessment has been submitted for consideration and is currently pending.
- Ongoing consultation with State Historic Preservation Office (SHPO). Caltrans has obtained a Concurrence of Eligibility Determination from SHPO. A Finding of Effect was also submitted to SHPO and concurrence is pending.

## Chapter 5 List of Preparers

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This EIR/EA was prepared by the California Department of Transportation, North Region Office of Environmental Management in Redding, within input from the following staff and consultants:

### **Caltrans**

KELLY BABCOCK, Federal Lands Coordinator/Federal Agency Liaison/Right-of-Way. Contribution: Wild and Scenic River and Right-of-Way Coordination.

ANDRE BENOIST, Associate Environmental Planner (Generalist). Contribution: Peer review.

CABE CORNELIUS, Associate Environmental Planner (Generalist). Contribution: Environmental Coordination and Document Writer.

BRETT DITZLER, Transportation Engineer. Contribution: Hydraulics Report/Floodplain Evaluation.

JEREMY KETCHUM, Senior Environmental Planner. Contribution: Environmental Document Quality Control.

CHRIS KUZAK, Associate Environmental Planner (Architectural Historian). Contribution: Historic Resource Compliance Documents.

JULIE MCFALL, Associate Environmental Planner (Generalist). Contribution: NEPA QC review

CHRIS QUINEY, Senior Environmental Planner. Contribution: Environmental Document Oversight.

DANIEL SESSIONS, Transportation Engineer. Contribution: Bridge design.

ROBIN SOLARI, Landscape Associate. Contribution: Visual Impact Assessment.

BYRON STANLEY, Transportation Engineer. Contribution: Roadway design.

GARRY TOLEN, Transportation Engineer. Contribution: Structures Construction.

CHELSEA TRAN-WONG, Associate Environmental Planner (Natural Sciences). Contribution: Biological Studies.

BRIAN WALSH, Associate Environmental Planner (Archaeology). Contribution: Archaeological Studies.

STEVE WERNER, Engineering Geologist. Contribution: Initial Site Investigation and Preliminary Site Investigation.

***Advanced Geological Services***

ROARK W. SMITH, Senior Geophysicist. Contribution: Geophysical Investigation.

***Geocon Consultants, Inc.***

DAVID WATTS, Senior Project Scientist. Contribution: Asbestos and Lead-Containing Paint Survey Report.

***JRP Historical Consulting, LLC.***

CHRISTOPHER MCMORRIS, Partner / Architectural Historian – CHANDRA MILLER, Staff Architectural Historian. Contribution: Historical Resources Evaluation Report.

## Chapter 6 Distribution List

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The following agencies, organizations, and individuals will be sent a copy of this EIR/EA. A notice to availability of this document has been sent to a much broader list that includes all owners and occupants of property contiguous to the parcels on which the proposed project is located.

### **Federal Agencies**

Federal Highway Administration  
650 Capitol Mall, Suite 4-100, Sacramento, CA 95814

Klamath National Forest  
1711 South Main Street, Yreka, CA 96097

National Marine Fisheries Service  
650 Capital Mall, Suite 8-300, Sacramento, CA 95814

U.S. Army Corps of Engineers Regulatory Branch  
601 Startare Dr #100, Eureka, CA 95501

### **State Agencies**

California Air Resources Board  
2020 L Street, Sacramento, CA 95814

California Department of Fish and Wildlife  
601 Locust Street, Redding, CA 96001

California Department of Forestry and Fire Protection  
1809 Fairlane Road, Yreka, CA 96097

California Highway Patrol  
1739 S Main Street, Yreka, CA 96097

Governor's Office of Planning and Research / State Clearinghouse  
P.O. Box 3044, Sacramento, CA 95812-3044

North Coast Regional Water Quality Control Board  
5500 Skylane Blvd Ste A, Santa Rosa, CA 95403

California State Lands Commission  
100 Howe Avenue, Suite 100-South Sacramento, CA 95825-8202

**Local Agencies**

Siskiyou County Board of Supervisors  
1312 Fairlane Road, Yreka, CA 96097

Siskiyou County Dept. of Public Works  
Attn: Scott Waite, Director  
1312 Fairlane Road, Yreka, CA 96097

Siskiyou County Fire Warden  
1809 Fairlane Road, Yreka, CA 96097

Siskiyou County Museum  
910 South Main Street, Yreka, CA 96097

Siskiyou County Sheriff's Office  
305 Butte Street, Yreka, CA 96097

Siskiyou County Transportation Commission  
Attn: Melissa Cummins  
411 Fourth Street, Yreka, CA 96097

Yreka Chamber of Commerce  
1000 South Main Street, Yreka, CA 96097

Yreka Preservation Corporation  
304 Lane Street, Yreka, CA 96097

# Appendix A. CEQA Checklist

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 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
<b>I. AESTHETICS:</b> 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>II. AGRICULTURE AND FOREST RESOURCES:</b> 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>
<b>III. AIR QUALITY:</b> 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"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>
<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VI. GEOLOGY AND SOILS:** Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XIII. POPULATION AND HOUSING:** Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**XIV. PUBLIC SERVICES:**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

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
--------------------------------	---------------------------------------	------------------------------	-----------

**XV. RECREATION:**

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**XVI. TRANSPORTATION/TRAFFIC:** Would the project:

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

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

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

## Appendix B. Section 4(f) Evaluation

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Appendix B. Section 4(f) Evaluation

Replacement of the Klamath River Bridge  
(Bridge No. 02-0015) on State Route 263 in  
Siskiyou County near Yreka

**PROGRAMMATIC SECTION 4(F) EVALUATION**

Submitted Pursuant to:

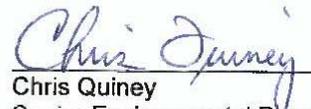
49 USC 303

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

THE STATE OF CALIFORNIA

Department of Transportation as assigned

6/27/16  
Date of Approval

  
Chris Quiney  
Senior Environmental Planner

## INTRODUCTION

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

A Programmatic Section 4(f) eliminates the requirement for consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by Section 4(f). However, the bridge is a historic resource and coordination with the State Historic Preservation Officer is required.

## PROJECT BACKGROUND

This Section 4(f) Evaluation has been prepared because the Klamath River Bridge Replacement Project will be funded with federal dollars and because the project affects a historic bridge that has been determined eligible for inclusion in the National Register of Historic Places (NRHP).

In January 2016, Caltrans, as assigned by the FHWA, determined that the Section 4(f) evaluation for the Klamath River Bridge Replacement Project qualifies for consideration under the Programmatic Section 4(f) process. This determination was based upon the findings presented in reports, agreements between responsible parties, and consultations with responsible and trustee agencies and interested parties. The primary documents used to reach this conclusion are listed in Table B-1, below:

**Table B-1 Cultural Resource Documentation**

<b>Documentation</b>	<b>Date</b>
Historic Property Survey Report (HPSR), Archaeological Survey Report (ASR), & Historical Resource Evaluation Report (HRER)	March 2016
Draft Finding of Effect (FOE) with a finding of <i>Adverse Effect</i>	June 2016
MOU	TBD

**DESCRIPTION OF PROPOSED PROJECT AND ALTERNATIVES**

**Purpose and Need**

The purpose of the project is to provide a bridge that meets modern highway design standards, accommodates interregional transportation needs, and provides safe crossing for the traveling public.

The existing bridge was built in 1931, is over 85 years old, and is beyond its originally designed service life. Current deficiencies include the following:

- Deteriorated structural concrete and reinforcing steel throughout the bridge. This is due primarily to environmental decay, traffic loads, and general aging.
- Some large permit loads are restricted due to lane width and structural limitations for weight loading.
- Seismic vulnerability
- Scour at pier footings
- Sagging deck spans between piers
- Non-standard shoulder width
- Non-standard barrier railing for bicycle traffic and pedestrians
- Geometrics which result in a skewed intersection at the junction of SR 96.

The bridge has had a long history of maintenance repairs including problems with the structural concrete and reinforcing steel, dating back to 1951. Over the years, there have been many rehabilitation efforts including the resurfacing and replacement of unsound concrete deck elements and barrier rail.

Since 1995, concrete deterioration and spalling have progressed throughout the structure. It has been noted that the spans are sagging and the pier foundations are experiencing scour. The structure has been the subject of numerous high cost maintenance strategies and repairs, including the most recent emergency deck repair conducted in 2009. The continuing deterioration compromises the structural and seismic integrity of the bridge, which has prompted load restrictions on the structure.

In addition, the existing bridge has non-standard bridge rails, 0-4 feet of untreated roadway shoulders leading up to the bridge, 2-foot shoulders on the bridge, and inadequate turning radii at the junction of SR96 and SR263. This section of highway is part of the Federal Surface Transportation Assistance Act (STAA) of 1982 truck network, which accommodates large STAA trucks as well as legal and permit loads. Traffic making left turns to and from SR 263 have to make a sharp turn without the benefit of a left turn lane. Trucks and larger vehicle traffic have to make out-of-lane turning movements to complete turns to or from the south of SR 263, and often have to cross oncoming lanes to take refuge on the opposite shoulder in order to make a turn, thereby compromising safety. The narrow, untreated shoulders limit recovery area for errant vehicles, and do not effectively accommodate bicyclists.

## **General Project Location**

The Klamath River Bridge (Bridge No. 02-0015) is located on State Route (SR) 263 in Siskiyou County, four miles north of the Yreka city limits. SR 263 lies in the north part of Siskiyou County, running north from Yreka to its terminus at SR 96. SR 263 has a total length of 8.1 miles. It is a rural minor arterial, two-lane highway in rolling to mountainous terrain. The Klamath River Bridge is situated immediately south of the junction of SR 263 and 96 in a rugged mountainous area. The primary purpose of SR 263 is to provide access to area businesses and residences and act as a connector between Yreka and SR 96. It is also used during the winter season by heavy trucks to avoid adverse weather conditions on Interstate 5 (I-5) at the Anderson Grade.

## **Project Alternatives**

### ***Alternative A (Build New Bridge and Remove Existing Bridge)***

Alternative A proposes construction of a new bridge and removal of the existing bridge. The proposed bridge would be a concrete arch bridge with a reinforced concrete slab situated immediately west of, and parallel with, the existing bridge (**Figure 4**). The bridge would be approximately 269 feet in length and would span the ordinary high water mark of the Klamath River. The environment would benefit from this alternative as there would no longer be any piers in the waterway. This would eliminate debris racking and scour thus improving water quality, provide additional fish spawning area and would provide for safer navigable passage. A retaining wall would be required at the north abutment due to the steep terrain on the south side of SR 96. The new bridge

would be approximately 44 feet in width to accommodate two 12-foot traffic lanes and 8-foot shoulders. The bridge rail would be of sufficient height to accommodate pedestrians and bicyclists. The intersection of SR 263 and SR 96 would be widened and reconfigured to improve operations and safety. Implementation of Alternative A would require the acquisition of approximately 2.3 acres of new right-of-way as well as one single family residence. There is an aerial phone line crossing the Klamath River that would be relocated prior to construction. Alternative A satisfies the purpose and need criteria and provides a new bridge that is compatible with the historic and scenic attributes of the Klamath River highway corridor. Construction of a replacement bridge on a new alignment would simplify construction as traffic would be able to remain on the existing bridge until construction of the new bridge was completed. Removal of the existing bridge would: eliminate costs associated with rehabilitation and ongoing maintenance; reduce the safety hazards associated with routine maintenance; and most importantly, it would address the planned disposition of the existing bridge, which is becoming progressively less stable.

### **New Bridge Construction**

Typical construction equipment expected to be used if Alternative A were implemented includes dozers, loaders, graders, excavators, dump trucks, cranes, pile drivers, cement trucks, paving machines, pumps, compressors and similar bridge construction equipment.

Prior to beginning construction any conflicting overhead or underground utilities would be relocated by Siskiyou Telephone. The first order of work, once any temporary environmentally sensitive area (ESA) fencing is installed would be to clear vegetation and grade for work pads and temporary construction access roads. Temporary construction access roads would be required to access the work area below, or adjacent to, the proposed bridge and existing bridge. Access roads would most likely be located on the southwest and northwest quadrants of the proposed bridge and would generally fall within the footprint of existing dirt roads or driveways. The access roads would be graded and covered with rock to provide a stable surface for heavy construction equipment. Grading for the access roads may require grading up to 4-feet deep to push out high spots or to fill in low spots. The roads would have a width of approximately 25-feet.

Temporary work platforms (trestles) would likely be required for construction of the new bridge and removal of the existing bridge. The trestles would be elevated and supported by steel piles. It is anticipated that two trestles would be required for the construction and demolition processes. One trestle would be placed directly below, or adjacent to, the new bridge as a work platform to build and support the structure. The other trestle would be used as a work platform to remove the existing structure.

## **Demolition**

Once the new bridge is complete and traffic is shifted to the new bridge, demolition of the existing structure would begin. The contractor would construct a catchment device to prevent debris from falling into the Klamath River. The catchment device would likely consist of a wood and/or steel platform attached to the bridge piers. The contractor would utilize a pneumatic hammer attached to an excavator arm to demolish the concrete structure. Reinforcing steel would be cut with a torch or mechanical cutting implement. The deck would be removed first with the excavator working from the bridge deck. Once the deck is removed, it is likely that the excavator would operate from an adjacent temporary trestle. The in-water piers would be removed to a point just above the water level. Once the in-water piers are removed to the water line, it is anticipated that a crane operating from the bridge deck would hook onto the spread footings and what remains of the piers and lift them out of the channel. The footings would be brought to an upland area for further reduction. It anticipated that the debris would be removed with an excavator bucket, placed in a container, and transferred to an approved staging area/temporary upland stockpile site. All debris would ultimately be either recycled or disposed of at an approved upland site.

### ***Alternative B (Rehabilitate Existing Bridge)***

Alternative B entails rehabilitation of the existing structure to repair and strengthen the bridge, increase the load bearing capacity, and most importantly provide a safe structure for maintenance employees and the travelling public. However, this alternative would not meet current design standards, would not address the skewed intersection, would only defer future replacement, cost at least as much if not more than the replacement alternative and would likely be considered a significant impact to a Historic Property.

A rehabilitation strategy would address the basic deficiencies related to the deterioration of concrete, deterioration of reinforcing steel and seismic stability issues, but would not include operational and safety improvements such as widening of the deck to attain standard shoulder width or reconfiguration of the intersection at SR 263 and SR 96.

The existing skewed supports and unbalanced mass distribution throughout the structure have created seismic vulnerabilities. In order to be considered seismically stable, an extensive combination of diaphragm restrainers, steel column and strut casings, abutment strengthening and fortification would be required.

Beginning with seismic upgrades and strengthening, the existing bridge has six piers with spread footings that would need to be exposed in order to enlarge and strengthen the footings. An access road would need to be established for each foundation location. Excavations would occur around each pier to a depth of approximately 2-5 feet deep, to expose the footings and provide room for materials and workers. The excavation would need to be shored up for safety and dewatered if ground water is encountered. Three of

the six piers are within the active channel of the Klamath River. The foundations within the active channel would need to be isolated and dewatered with coffer dams. Cofferdams could temporarily add up to an additional 3-feet of width to each pier on each side within the channel. Once the footings are exposed, small diameter holes would be drilled into the footings and steel dowels inserted to provide a structural connection between existing and new steel and concrete. Forms would be constructed and additional reinforcing steel would be added. Concrete would then be poured to enlarge and strengthen the footings.

To rectify the existing foundation scour problem and to protect the enlarged footings, it would be necessary to place large rock slope protection (RSP) at the base of the piers within the channel of the Klamath River. This action would be the most environmentally intrusive alternative. See (Table 1.1-1) for additional detail on project alternative impacts.

Similar seismic upgrades and strengthening work may be necessary on the abutment foundations and piers. In areas where spalling and cracking is a problem, the unsound concrete would need to be removed from the structure and replaced. All debris will be captured and disposed of at an appropriate disposal location. Once all unsound concrete is removed, the reinforcing steel would be cleaned with a blasting medium. Any damaged steel would need to be replaced. The amount of unsound concrete and damaged steel could vary widely because the extent of deterioration would not be determined until repair work has commenced. Forms would then be erected and new concrete would be poured. Forms and temporary work platform would likely require additional support piles to be placed within the active channel.

The anticipated construction equipment required for such a job would be excavators, cranes, pile drivers, concrete trucks, front-end loaders, dump trucks, pavers, and various other types of equipment including compressors and other small equipment.

### ***Alternative C (No-Build)***

The “No-Build” alternative assumes that the existing bridge would be maintained and substantial improvements would not be made. The structural integrity of the bridge would continue to deteriorate over time and permit loads would continue to be limited due to the width and weight capacity of the bridge. Structure maintenance costs would increase and the safety of maintenance workers and traveling public would be compromised, due to the narrow width of the bridge deck and the inherent risks to personnel associated with maintaining this type of structure. The structural integrity of the bridge would continue to decline, and rehabilitation or replacement would have to be addressed in the future.

Table B-2 includes the potential impacts related to cultural resources and estimated construction costs for the respective alternatives.

**Table B-2 Consequences and Estimated Construction Costs for Project Alternatives**

	<b>Alternative A</b> (Construct new bridge and remove current bridge)	<b>Alternative B</b> (Rehabilitate and seismically retrofit existing bridge)	<b>Alternative C</b> (No-Build)
Satisfy purpose and need	Yes – meets all current design standards, remedies safety concerns and provides 100 year structure	No – still inadequate shoulder widths, unsafe skewed intersection and only defers bridge replacement	No – does not satisfy purpose and need and bridge would eventually require full replacement or rehabilitation
Estimated construction costs (\$millions)	\$14.3	\$14.9 – there is a potential for the cost of this alternative to increase significantly based on not being able to determine the severity of the structure decay	None initially – ongoing maintenance costs would be high and the bridge would eventually still require full replacement or rehab
Adverse impact to a historic resource	Yes – removal of the current bridge would be an adverse impact to a historic resource	There is a potential to affect the historic integrity of the bridge with a rehabilitation effort	No impact – but the bridge would eventually require full replacement or rehab

#### **DESCRIPTION OF THE AFFECTED SECTION 4(f) PROPERTY**

One resource in the project vicinity, the Klamath River Bridge, is eligible for consideration under Section 4(f).

The Klamath River Bridge (Bridge No. 02-0015) [Figure 1] is approximately 468-feet long and 27-feet wide. It rises 60 feet above the Klamath River. It has a reinforced concrete deck with two reinforced concrete girders. The deck has a composite polyester concrete overlay. There are multiple horizontal drains (or scuppers) on the deck. Surface waters from the deck will drain through these holes and empty directly into the river. The existing bridge is a simple six span bridge that sits on a 600 foot radius curve. The bridge was designed by the Bridge Department of the California Division of Highways and was constructed in 1931.

The Klamath River Bridge was determined individually eligible for the National Register of Historic Places in the original statewide bridge survey from 1986-88 under criteria A and C. Under Criterion A, the bridge was found to be significant as a crucial part of Highway 99 (now SR 263) through Shasta Canyon, one of the state’s most important transportation corridors prior to completion of Interstate 5 in the 1960s. It was also found to be eligible under Criterion C as a distinctive example of its type and period. A T-beam concrete structure, its 80-foot spans were some of the longest in the state at the time it was constructed, in 1931, while the bridge itself was one of the highest of its type. The bridge’s construction was also a significant engineering achievement, given its isolated setting and the difficulties of constructing it in a canyon.

## **IMPACTS TO THE KLAMATH RIVER BRIDGE (BRIDGE NO. 02-0015)**

This chapter describes how each alternative would affect the Klamath River Bridge, the subject Section 4(f) property.

### **Alternative A (Build New Bridge)**

Under Alternative A, a new bridge would be constructed immediately west of and parallel to the existing structure. The existing bridge would remain in place and in use as a detour until the new bridge is completed, at which time the existing bridge would be demolished. Alternative A would remove the historic bridge from this location entirely, thereby eliminating a historic property, which constitutes a “use” of the historic bridge under the terms of the Programmatic Section 4(f) and a significant adverse effect under Section 106.

### **Alternative B (Rehabilitate Existing Bridge)**

Alternative B proposes seismically retrofitting and rehabilitating the existing bridge. Rehabilitation of the existing bridge would require enlarging and strengthening footings and piers, adding steel columns, strut casings, diaphragm restrainers, replacing unsound reinforcing steel and concrete and the installation of standard barrier railing. The extensive bridge modification required for this alternative would potentially impair the historic integrity of the bridge, which constitutes a “use” of the historic bridge under the terms of the Programmatic Section 4(f) and a significant adverse effect under Section 106.

### **Alternative C (No-Build)**

Under Alternative C, the existing Klamath River Bridge would be maintained without substantial structural changes or improvements. The uses and functions of the existing Klamath River Bridge No. 02-0015 would remain in the present condition. Under this alternative there would be no impacts to the Section 4(f) Bridge; therefore, the No Build alternative does not constitute a “use” under Section 4(f).

### **APPLICABILITY OF PROGRAMMATIC SECTION 4(f)**

As documented below, the replacement alternative meets the applicability criteria and the required findings of the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges* (1983). The above referenced applicability criteria and required findings are presented in the text below:

1. The bridge is to be replaced or rehabilitated with federal funds.

Response 1: Yes. The Klamath River Bridge would be replaced using federal funds.

2. The project would require the use of a historic bridge structure that is on or is eligible for listing in the NRHP.

Response 2: Yes. The Klamath River Bridge (Bridge No. 02-0015) is eligible for inclusion in the NRHP with regard to the timeframe in which it was completed (1931), on both a local and state level of significance.

3. The bridge is not a National Historic Landmark.

Response 3: Yes. The Klamath River Bridge is not a National Historic Landmark.

4. The Federal Highway Administration (FHWA) administrator determined that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.

Response 4: Yes.

5. Agreement among FHWA, the SHPO, and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106.

Response 5: Consultation and coordination with the SHPO and ACHP, which would include the matter of this programmatic evaluation, is under way as part of the Section 106 process.

## **AVOIDANCE ALTERNATIVES AND FINDINGS**

As required under the terms of the Programmatic Section 4(f) for historic bridges, the purpose of this section is to examine alternatives that would avoid the “use” of a Section 4(f) resource, and to determine whether such avoidance alternatives are prudent and feasible.

### **Feasible and Prudent Standard**

Under Section 4(f), an alternative that completely avoids the use of Section 4(f) property must be selected unless it would not be “feasible and prudent” to construct it [49 USC 303(c)]. According to 23 CFR 774.17, an alternative is not considered feasible if “it cannot be built as a matter of sound engineering judgment.”

An alternative is not considered prudent if:

1. it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
2. it results in unacceptable safety or operation problems;

3. after reasonable mitigation, it still causes:
  - a. severe social, economic, or environmental impacts;
  - b. severe disruption to established communities;
  - c. severe disproportionate impacts to minority or low-income populations;
  - d. or severe impacts to environmental resources protected under other Federal statutes;
4. it results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
5. it causes other unique problems or unusual factors;
6. or it involves multiple factors (in this definition) that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

The Programmatic Section 4(f) for historic bridges dictates that the following avoidance alternatives must be considered:

1. Do nothing (no build)
2. Build a new structure at a different location without affecting the historic integrity of the old bridge, as determined by procedures implementing the NHPA.
3. Rehabilitate the historic bridge without affecting the historic integrity of the structure, as determined by procedures implementing the NHPA.

### **Avoidance Alternative 1 – Do Nothing**

Avoidance Alternative 1 is equivalent to proposed project Alternative C (No Build). Although it is feasible and would avoid using the Section 4(f) resource, Avoidance Alternative 1 does not pass the test for prudence. Avoidance Alternative 1 does not meet the stated purpose and need of the proposed project, which is to improve safety and load carrying capacity for the structurally deficient Klamath River Bridge. It also does not plan for the inevitable need to replace the structure. The existing bridge has exceeded its designed service life and requires an increasing amount of maintenance and repair to keep it in service.

### **Avoidance Alternative 2 – Building on New Location without Using the Old Bridge**

A new bridge could be built on a separate alignment, thereby leaving the existing structure in place. However, due to the condition of the existing bridge, it would still need to be rehabilitated and maintained. Also, it would not provide acceptable utility as a modern highway crossing as it would still have non-standard shoulder width, bridge rail and the safety and operational concerns at the junction of SR263/SR96 would still exist. This would more than double the cost of the proposed action. Given the costs associated with maintenance and liability issues associated with owning and maintaining such a structure, it is unlikely that any agency or organization would desire to take ownership of the bridge. It would not be prudent for Caltrans to maintain

ownership and maintenance responsibilities of the existing structure and therefore this alternative is not under consideration.

### **Avoidance Alternative 3 – Rehabilitation without Affecting the Historic Integrity of the Bridge**

An attempt could be made to rehabilitate the existing bridge without affecting its historic integrity. In order to repair and strengthen the bridge to comply with seismic and safety standards, some changes in the structure's dimensions would be required. This may or may not affect the historic integrity, however, the extent and type of work needed to complete the rehabilitation effort would not be known until extensive structural testing were completed. Even if this would occur, it is deemed not prudent based upon the following:

- The rehabilitated structure would still have a limited service life, only deferring the need to replace the structure in the near future.
- The rehabilitation strategy would not address the non-standard shoulder width and bridge railing. This could be accomplished, but the costs to do so would be unreasonable.
- It would not be feasible, within reason, to adjust the curvature of the existing bridge and reconfigure the intersection of SR263/96 to alleviate existing safety and operational deficiencies.

### **MEASURES TO MINIMIZE HARM TO SECTION 4(F) PROPERTY**

As discussed in the previous section, none of the Avoidance Alternatives are considered prudent in accordance with the FHWA definition. Avoidance of adverse effects upon historical resources relative to the proposed project is attainable only with Alternative C, the no-build alternative. Even then, the rehabilitated structure would have a limited service life before replacement would be required. The replacement would only be deferred for an undetermined period of time and proper planning for replacement may be difficult.

The Department is preparing a Finding of Effects (FOE), which is a determination that the project, with implementation of Alternative A (build new bridge and remove existing bridge) would result in an adverse effect to a historic property, the Klamath River Bridge. The Department plans to enter into a Memorandum of Agreement (MOA) with the SHPO and ACHP which takes into account the project's effects on the Klamath River Bridge and specifies mitigation to be completed by Caltrans.

The proposed mitigation options include:

- Preparation of a permanent record of the Klamath River Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.
- Construction and installation of an interpretive display panel as well as the placement of a piece of the original Klamath River Bridge railing all to be located at the Randolph Collier Safety Roadside Rest Area approximately 2 miles east of the project location. The display would include photographs and information pertaining to the historic bridge.
- Creation and construction of a pamphlet style information booklet filled with illustrations and information on this and other local bridges and areas of interest. To be made available or handed out at the Yreka Preservation Office and/or the Randolph Collier Safety Roadside Rest Area information center.

Based on current consultation efforts with the SHPO and other parties, the Department anticipates receiving a letter of concurrence on the FOE and approval of the MOA.

## **COORDINATION**

A Notice of Preparation (NOP) was advertised in accordance with the California Environmental Quality Act Guidelines. The NOP was sent to public agencies with discretionary approval authority and/or jurisdiction over resources held in trust for the public, and other appropriate public agencies, organizations, and individuals with an interest in the proposed project. The purpose of the NOP is to obtain early comments on the proposed project, project alternatives, and potential environmental effects of the project. The only comments received were from the California Regional Water Quality Control Board and the California State Lands Commission regarding compliance with regulations pertaining to water quality and all ungranted tidelands, submerged lands and the beds of navigable lakes and waterways respectively.

FHWA has determined that the undertaking will have an adverse effect on the Klamath River Bridge, determined eligible for listing in the National Register under Criterion A and C, as a significant example of its cantilever truss bridge type and as a key link in an important highway, and, with the cooperation and assistance of Caltrans, is consulting with the SHPO regarding the resolution of adverse effects in accordance with 36 CFR 800 (Section 106).

# Appendix C. Title VI Policy Statement

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**DEPARTMENT OF TRANSPORTATION**  
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March 16, 2012

## **NON-DISCRIMINATION POLICY STATEMENT**

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

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: [http://www.dot.ca.gov/hq/bep/title\\_vi/t6\\_violated.htm](http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm).

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Mario Solis, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1825 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353, TTY 711, fax (916) 324-1869, or via email: [mario\\_solis@dot.ca.gov](mailto:mario_solis@dot.ca.gov).

  
MALCOLM DOUGHERTY  
Acting Director

*"Caltrans improves mobility across California"*

## Appendix D. Summary of Relocation Benefits

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### RELOCATION ASSISTANCE ADVISORY SERVICES

#### **DECLARATION OF POLICY**

“The purpose of this title is to establish a **uniform policy for fair and equitable treatment** of persons displaced as a result of federal and federally assisted programs in order that such persons **shall not suffer disproportionate injuries** as a result of programs designed for the benefit of the public as a whole.”

The Fifth Amendment to the U.S. Constitution states, “No Person shall...be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation.” The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations (CFR) Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

#### **FAIR HOUSING**

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require the Department to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state’s relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit

organization should commit to purchase or rent a replacement property without first contacting a Department relocation advisor.

### **RELOCATION ASSISTANCE ADVISORY SERVICES**

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the Department will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States. The Department will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are “decent, safe and sanitary.” Nonresidential displacees will receive information on comparable properties for lease or purchase (for business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning federal and state assisted housing programs and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable “decent, safe and sanitary” replacement dwelling, available on the market, is offered to them by the Department.

### **RESIDENTIAL RELOCATION PAYMENTS**

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

#### *Moving Costs*

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in

moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

#### *Purchase Differential*

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used (see the explanation of the Last Resort Housing Program below).

#### *Rent Differential*

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by the Department prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when the Department determines that the cost to rent a comparable “decent, safe and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the *Down Payment* section below. The maximum amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is \$5,250. If the total entitlement for rent supplement exceeds \$5,250, the Last Resort Housing Program will be used.

To receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

### *Down Payment*

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to Caltrans' initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one-year eligibility period in which to purchase and occupy a "decent, safe and sanitary" replacement dwelling will apply.

### *Last Resort Housing*

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$22,500 and \$5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, the Department will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced.
- Specific arrangements needed to accommodate any family member(s) with special needs.
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family.
- Preferences in area of relocation.
- Location of employment or school.

# Appendix E. Avoidance, Minimization, and Mitigation Summary

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## **Avoidance and Minimization Measures**

### ***Land Use***

- No avoidance, minimization, and/or mitigation measures are proposed.

### ***Wild and Scenic Rivers***

- No avoidance, minimization, and/or mitigation measures are proposed. A standard Caltrans Traffic Management Plan and public outreach during construction would provide information related to river access and conditions during construction.

### ***Parks and Recreational Features***

- No avoidance, minimization or mitigation measures are proposed. As standard practice, signs would be placed on the Klamath River upstream and downstream of the project area informing boaters of any conditions related to river use during the construction periods. In addition, public outreach would be conducted prior to and during construction to advise the public, including recreational river users, of any conditions affecting highway traffic or river use in the vicinity of the bridge during construction. Public outreach may consist of one or a combination of news releases, information posted at river access locations, or information posted on river managing agency websites.

### ***Relocations and Real Property Acquisition***

Although there would not be an adverse effect with regard to housing, Caltrans would compensate and provide assistance pursuant to federal and state laws for any displacements or real estate acquisitions resulting from the implementation of Alternative A.

- Relocation assistance payments and counseling will be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees will be entitled to moving expenses. All benefits and services will be provided equitably to all residential and business relocatees without regard to race, color, religion, age, national origins, or disability, as specified under Title VI of the Civil Rights Act of 1964 (Appendix D).

### **Utilities/Emergency Services**

No avoidance, minimization or mitigation measures are proposed.

- As standard practice, any required utility relocation would be coordinated with, and performed by, Siskiyou Telephone prior to the beginning of bridge construction.
- A Traffic Management Plan (TMP) would be prepared to address traffic management and control during construction activities. Emergency response agencies and transit services would be notified of the dates and times of any construction-related traffic restrictions. Provisions would be included to ensure that emergency access and passage is unimpeded.

### **Visual/Aesthetics**

Although there would be no adverse visual or aesthetic affects resulting from the project, the following design measures will be considered for inclusion in the project design:

- Trees removed will be replaced at a ratio of 2:1
- Open up Views: When designing planting plans for re-vegetation efforts, identify key viewing points and plant lower growing species in these areas to open views to the river and bridge.
- Screen Access Roads: When designing planting plans for re-vegetation efforts, plant taller growing species to screen any bridge access roads left post-construction.
- An architectural treatment, such as a rock motif, may be applied to any retaining structures and/or bridge abutments.

### **Hydrology and Floodplain**

- No avoidance, minimization, or mitigation measures are proposed.

### **Water Quality and Storm Water Runoff**

Although the implementation of Alternative A would not result in an adverse effect related to water quality or storm water runoff, Caltrans is required to adhere to the following regulatory permits and regulations pertaining to transportation projects:

- A 401 certification from the North Coast RWQCB would be required for project construction.

## **Construction**

Because the proposed project will involve a soil disturbance of more than 1 acre, Caltrans will adhere would obtain coverage under the CGP. To comply with the conditions of CGP and address temporary water quality impacts resulting from the construction activities associated with this project, Caltrans will require a SWPPP from its Contractor. To avoid contaminating waterways or groundwater, additional water quality, erosion, and hazardous waste provisions may also be required in construction contract and/or in Caltrans Standard Specifications and Standard Special Provisions. The SWPPP will address the construction-phase impacts and will include the following elements: Project Description; Minimum Construction Control Measures; Erosion and Sediment Control; Non-Storm Water Management; Post-Construction Storm Water Management; Waste Management and Disposal; Maintenance, Inspection, and Repair; Annual Reporting to RWQCB; and Training.

- If groundwater is encountered during any excavations, the Caltrans Office of Environmental Engineering will be contacted regarding the handling and disposal of this water. If this water will be discharged into any jurisdictional waters, appropriate dewatering procedures will be required to reduce or eliminate any potential discharge of pollutants to the maximum extent feasible. A project-specific Waste Discharge Permit may be required from the RWQCB if substantial dewatering will take place. In the event that this project would affect groundwater, the groundwater will be tested for potential contamination, and a Special Provision will be prepared, if applicable, to ensure the proper handling and disposal of the groundwater.

## ***Post-Construction***

- Permanent control measures to reduce pollutants in storm water runoff from the roadway will be implemented, as required, to reduce suspended particulate loads (and thus pollutants associated with the particulates) entering drainages. These measures will be incorporated into the final engineering design or landscape design of the project.

## ***Hazardous Waste/Materials***

Although there are no adverse effects from hazardous waste/materials, Caltrans would comply with regulations and implement appropriate standard special provisions as necessary.

- A Lead Compliance Plan will be required, but excavated earth material may be used on the project or disposed of without restriction.

- TWW generated on the project would be disposed of at an appropriately permitted disposal facility. In addition to disposal, Caltrans would specify the manner in which TWW must be stored while awaiting disposal.

### ***Air Quality***

The project would not result in an adverse effect to air quality, however, Caltrans would comply with state and federal air quality regulations and implement Caltrans standard practices, including the following:

- The contractor is required to comply with Caltrans' Standard Specifications, which include Section 7-1.01F "Air Pollution Control" and Section 10 "Dust Control."
- The U.S. Environmental Protection Agency's National Emissions Standards for Hazardous Air Pollutants (NESHAP) and the California Air Resources Control Board (CARB) rules require the contractor to notify the CARB in writing prior to the demolition or renovation of a bridge or residence.

### ***Noise and Vibration***

- No avoidance, minimization, and/or mitigation measures are proposed.

### ***Natural Communities***

No avoidance, minimization, and/or mitigation measures are proposed, however the following standard design practices and compensatory measures for regulatory permits would be included in the project:

- Existing vegetation adjacent to construction activities located within the project limits will be surrounded by protective fencing during construction to prevent unnecessary vegetation removal.
- Mitigation measures specified for riparian habitat impacts, including the preparation of a Revegetation and Monitoring Plan, will provide compensation for impacts to vegetation. Tree and plant species selected for revegetation will be native species appropriate for the project area and will not include any noxious or invasive weeds. To the extent possible, species used for replanting will consist of the same species removed by the project.
- All planting to comply with regulatory permits will take place onsite as space allows and if necessary, Caltrans will propose alternate compensation, such as a permittee responsible mitigation site, a bank, or in-lieu fee (ILF).

## ***Wetlands and Other Waters***

- Work within waters of the U.S. and State would be conducted in accordance with applicable regulatory permits. Although no significant effects would occur, any loss of waters, wetlands and/or riparian vegetation, would be offset based on negotiations between Caltrans and the respective regulatory agencies.

## ***Animal Species***

### Raptors and Migratory Bird Species

Although the proposed project is not expected to result in take, nor would the project result in a substantial loss of suitable migratory bird habitat, the following environmental commitments would be incorporated into the proposed project:

- During construction, if migratory or nongame bird nests are discovered that may be adversely affected by construction activities or an injured or killed bird is found, work would stop immediately within a 100-foot radius of the discovery. A qualified biologist would be notified for guidance on how to proceed. Construction activities would not resume within the specified radius of discovery until authorized.
- To avoid potential impacts to nesting migratory birds, tree removal would take place between September 1 and February 15.
- Existing swallow nests shall be removed from the existing bridge between September 1 and February 15.
- Exclusion devices shall be installed prior to the arrival of migratory bird (i.e., cliff swallows) between September 1 and February 15.

## ***Invasive Species***

No adverse effects related to invasive species are anticipated, therefore, no avoidance, minimization and/or mitigation measures are proposed. The following standard practices would be implemented to reduce the potential for spreading noxious weeds:

- All earthmoving equipment to be used during project construction will be thoroughly cleaned before arriving on the project site.
- All seeding equipment (e.g., hydro seed trucks) will be thoroughly rinsed at least three times offsite prior to beginning seeding work.
- To avoid spreading nonnative species to off-site areas, all equipment will be thoroughly cleaned before leaving the site.

## **Summary of Mitigation Measures for Potentially Significant Impacts under CEQA**

### ***Utilities/Emergency Services***

- If Alternative B were implemented, additional planning and coordination among agencies would be required to ensure that adequate emergency response time and coverage was maintained in the region during closure of the existing bridge.

### ***Cultural Resources***

To mitigate the adverse effect to the Klamath River Bridge resulting from the implementation of Alternative A, Caltrans will implement the following measures:

- Proposed preparation of a permanent record of the Klamath River Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.
- Proposed construction and installation of an interpretive display panel as well as the placement of a piece of the original Klamath River Bridge railing all to be located at the Randolph Collier Safety Roadside Rest Area approximately 2 miles east of the project location. The display would include photographs and information pertaining to the historic bridge.
- Proposed creation and construction of a pamphlet style information booklet filled with illustrations and information on this and other local bridges and areas of interest. To be made available or handed out at the Yreka Preservation Office and/or the Randolph Collier Safety Roadside Rest Area information center.
- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Chris Quiney, District 2 Environmental Branch Chief so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

## ***Animal Species***

### Foothill Yellow-Legged Frog

Although the project site is not expected to result in a take of FYLF, nor would the project result in a substantial loss of suitable FYLF habitat, the following avoidance measures would be incorporated into the proposed project:

- Prior to the start of construction, a qualified biologist would survey suitable FYLF aquatic and upland habitats, to ensure no FYLF are present. If turtles are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.

### Fish

Measures to avoid and minimize potential impacts to Threatened and Endangered Species (Coho salmon) are listed in Section 2.14.4. These restrictions, agreed to by NMFS, would also extend to protect the fish species listed in Table 2.13-1.

### Bats

Although the project would not be expected to impact special-status bat species, the following avoidance and minimization measures would be included in the project:

- The contractor would supply a qualified biologist that specializes in bats to provide guidance and direction on excluding bats that inhabit existing structures slated for removal or that are within close proximity of construction activities.
- The contractor supplied biologist would develop a plan to sequence bat exclusion, bridge construction and demolition. Bats must not be present in the existing bridge when demolition begins. The new bridge would be available to bats before existing habitat is removed. The Contractor would submit the sequencing plan to Caltrans for authorization and would not start work until the plan is authorized.
- Bat exclusion placement would be performed between September 1 and March 31.
- Bats would not be disturbed directly or indirectly at any time.
- Do not park or operate internal combustion engines or equipment (e.g., generators, pumps) or vehicles under the existing bridge.

### Northwestern Pond Turtle

Although the project site is not expected to result in a take of NWPT, nor would the project result in a substantial loss of suitable NWPT habitat, the following avoidance measures would be incorporated into the proposed project:

- Prior to the start of construction, a qualified biologist would survey suitable NWPT aquatic and upland habitats, to ensure no NWPT are present. If turtles are observed during surveys, they would be relocated outside of the construction area, to suitable habitat, by a qualified biologist.
- Commitments listed in Section 2.14.4 for the T/E species to protect coho salmon will also protect NWPT.

### ***Threatened and Endangered Species***

To avoid and minimize potential impacts to listed fish species that may result from the implementation of Alternative A and B, the following avoidance and minimization measures would be included:

- Below OHWM, access the work area by using temporary trestles or by placing a minimum 6-inch thick temporary work pad of uncrushed, rounded, natural river rock with no sharp edges that has been washed at least once to ensure it is free of oils, clay, debris, and organic matter ranging in size from 0.5 inch to 4 inches (spawning gravel). Before placing temporary work pads, cut riparian vegetation leaving a 2 inch stump to allow regeneration. Do not remove roots.
- During construction, a catchment system such as a platform, net, or tarp will be suspended under both the new bridge and the existing bridge to effectively catch all fallen debris and prevent it from entering the river.
- Construction activities associated with construction or removal of the bridges, including but not limited to dewatering, construction of temporary gravel work pad, construction of temporary trestles, and construction of temporary falsework will be conducted during daylight hours.
- If any lighting is necessary for equipment fueling or repair conducted during hours of darkness, it shall be directed away from the Klamath River.
- If necessary, all temporary exclusion structures (e.g. temporary sheet metal piling for cofferdams) used for temporary below OHWM exclusion will be placed between June 1 and October 31, may remain within the perimeter but above OHWM throughout the year and must be designed to withstand the forces of a 100-year flood.
- Below OHWM, temporary trestles may cross the river. Temporary trestles must be designed to withstand the forces of a 100-year flood, and may remain below OHWM and within the river throughout the year. Temporary trestle decking below OHWM must be removed between November 1 and May 31. Temporary trestle decking must not at any time become flooded by high water events.

- While temporary trestle piling is in place in the water, monitor piling and remove any accumulated debris at least daily, or more often as necessary, to protect the temporary structure.
- All other in-channel activities below OHWM (e.g., including but not limited to driving piles, etc.) will occur between June 1 and October 31. Driving piles will occur between July 1 and August 31.
- Motorized construction equipment will stay outside the open water perimeter.
- After construction is complete, all facilities installed by the Contractor during construction, including but not limited to falsework, temporary trestles, and temporary access road materials will be removed, excavated soil materials will be replaced and original ground contours will be restored outside the project cut/fill lines.
  - 3) When removing the gravel from temporary work pads leave bottom one foot in the channel to avoid impacts to the natural bed of the river.
- Modified or disturbed portions of the river and banks will be restored as nearly as possible to natural and stable contours.
- A Spill Prevention, Control, and Countermeasures (SPCC) Plan will be developed and included the SWPPP to minimize avoid the potential of a leak or spill of petroleum or hydraulic products within the channel, which will also include actions to take in the event of a spill or leak.
- If water drafting is needed for construction activities, water drafting from the Klamath River may take place from June 1 through October 31.
- Water drafting will require the implementation of NMFS (2001) water drafting specifications. Implementation consists of (but is not limited to):
  - 7) Diversion rate shall not exceed 10 percent of the surface flow and reduction in pool volume will not exceed 10 percent.
  - 8) Openings in perforated plate or woven wire mesh screens will not exceed 3/32 inches.
  - 9) Drafting operator shall actively observe the drafting operation, pumping shall cease and the screen cleaned if it becomes more than 10 percent obstructed by debris.
- Stream width, depth, velocity, and slope that provide upstream and downstream passage of adult and juvenile fish will be preserved according to current NMFS and CDFW guidelines and criteria or as developed in cooperation with NMFS and CDFW to accommodate site-specific conditions.

- A minimum of 80 foot wide section of the river shall be maintained between gravel pads throughout the duration of the construction for safe fish passage.
- A minimum of 20 foot wide section of the river shall be maintained between piles throughout the duration of the construction for safe fish passage.
- If one or more salmonids are found dead or injured, all project activities shall cease and NMFS and CDFW shall be contacted immediately. Project activities may resume only after NMFS and CDFW have reasonable assurances that no additional mortalities of listed salmonids will occur.
- If chemical contamination has been detected, all project activities shall cease and NMFS, CDFW and CRWQCB shall be contacted immediately. Project activities may resume only after NMFS, CDFW, and CRWQCB have reasonable assurances that chemical contamination has ceased.
- When forming a gravel pad, the river rock will be loaded into the river from the top of the river banks. The river rock will be placed gradually along the edge of the river out until a pad is formed.
- Pile driving will take place either on dry ground outside the river channel perimeter or within an isolation casing or dewatered cofferdam.
- All Pile driving activities will employ the smallest pile driver and minimum force necessary complete the work.
- Prior to pile driving activities, a qualified biologist supplied by the contractor shall prepare and submit an underwater noise monitoring plan for review and approval by NOAA/NMFS.
- Acoustic monitoring will occur onsite. Regular decibel readings will be collected and documented during all pile driving activities to ensure noise thresholds are not exceeded. Underwater sound generated by pile driving (decibel readings) must adhere to the monitoring plan approved by NOAA/NMFS.
- When reporting the results of underwater sound generated by pile driving to NOAA/NMFS, a copy of the underwater noise monitoring plan and report will also be provided to Caltrans, Office of Environmental Services, North Region-Redding-R1.
- Placement of concrete or concrete slurry to construct bridge footings must be conducted in a dry area (e.g. within a dewatered cofferdam) to prevent contact of wet concrete with water. Concrete or concrete slurry will not come into direct contact with flowing water.
- Additional monitoring of the construction site during the first rain event that will result in overland flow will be required to minimize the effects of sedimentation. If erosion is

noted, Caltrans shall take immediate measures to increase erosion control measures (i.e., placement of additional mulching, silt fences, straw wattles, etc.).

## Appendix F. Regional Species of Concern

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### Special Status Species Evaluation Plants

<i>Scientific Name</i>	Common Name	<u>Legal Status</u>	Other Status	Habitat	Habitat Present?	Potential for Occurrences & Rationale
		Federal/ State/ CNPS				
<b>PLANTS</b>						
<i>Acmispon rubrifloru</i>	red-flowered bird's-foot trefoil	--/--/1B.1	BLM_S-Sensitive	Valley and foothill grassland, cismontane woodland. Most recent sighting from sterile, red soils-volcanic mudflow deposits. 195-490 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.
<i>Allium jepsonii</i>	Jepson's onion	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chapparal, cismontane woodland, lower montane coniferous forest. On serpentine soils in Sierra foothills, volcanic soil on Table Mtn. On slopes and flats; usually in an open area. 355-1130 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	--/--/1B.2	BLM_S-Sensitive	Cismontane woodland, valley and foothill grassland. 50-500m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.

<i>Anisocarpus scabridus</i>	scabrid alpine tarplant	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Upper montane coniferous forest. Open stony ridges, metamorphic scree slopes of mountain peaks, and cliffs in or near red fir forest. 1650-2300 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.
<i>Arctostaphylos klamathensis</i>	Klamath manzanita	--/--/1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral (montane), lower montane coniferous forest, upper montane coniferous forest, subalpine coniferous forest. Rocky outcrops and slopes, sometimes on serpentine. 1430-2250 m.	No	Not Present. ESL is out of species' elevation range.
<i>Astragalus applegatei</i>	Applegate's milk-vetch	E/--/--		This species is historically known from only four sites, near the city of Klamath Falls in Klamath County, Oregon, approximately 1250 m (4,100 ft) above sea level. The largest population is located near Ewauna Lake in Klamath Falls; a significant portion of the site this population occurs on is owned by The Nature Conservancy. It occurs in flat-lying, seasonally moist, strongly alkaline soils dominated by greasewood ( <i>Sarcobatus vermiculatus</i> ) with sparse, native bunch grasses and patches of bare soil.	No	Not Present. ESL is out of species' geographic and elevation range.
<i>Astragalus rattanii</i> var. <i>jepsonianus</i>	Jepson's milk-vetch	--/--/1B.2	BLM_S-Sensitive	Cismontane woodland, valley and foothill grassland, chaparral. Commonly on serpentine in grassland or openings in chaparral. 175-1005 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.

<i>Astragalus tener</i> <i>var. ferrisiae</i>	Ferris's milk- vetch	--/--/1B.2	BLM_S-Sensitive	Cismontane woodland, valley and foothill grassland, chaparral. Commonly on serpentine in grassland or openings in chaparral. 175-1005 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.
<i>Balsamorhiza</i> <i>lanata</i>	woolly balsamroot	--/--/1B.2	BLM_S-Sensitive	Cismontane woodland. Open woods, grassy slopes. Volcanic substrates. 800-1895 m.	No	Not Present. ESL is out of species' elevation range.
<i>Balsamorhiza</i> <i>macrolepis</i>	big-scale balsamroot	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 90-1555 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Balsamorhiza</i> <i>sericea</i>	silky balsamroot	--/--/1B.3	BLM_S-Sensitive	Lower montane coniferous forest. Collections from Douglas-fir forest and Jeffrey pine forest. Can be on serpentine. 850-2130 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Boechea</i> <i>serpenticola</i>	Serpentine Rockcross	--/--/1B.2	BLM_S-Sensitive	Lower montane coniferous forest, upper montane coniferous forest. Serpentine ridges and talus. 1125-2090 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.

<i>Brodiaea rosea</i>	Indian Valley brodiaea	--/E/1B.1	BLM_S-Sensitive   USFS_S-Sensitive	Closed-cone coniferous forest, chaparral, cismontane woodland, valley and foothill grassland, meadows. Serpentine gravelly creek bottoms, and in meadows and swales. 335-1450 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Bryoria tortuosa</i>	yellow-twist horsehair	--/--/--	BLM_S-Sensitive	In California, it is found in the Northwestern California and Cascade Ranges Floristic Provinces. On trunks and branches of mature, open-grown trees or on trees along meadow edges in well-lit, open stands, most frequently on oaks and pines, although it has been collected on a variety of trees and shrubs.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Buxbaumia viridis</i>	green bug moss	--/--/2B.2	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest, upper montane coniferous forest, subalpine coniferous forest. Well rotted logs and in peaty soil and humus. 975-2200 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.
<i>Calochortus greenei</i>	Greene's mariposa-lily	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Meadows and seeps, cismontane woodland, pinyon and juniper woodland, upper montane coniferous forest. On volcanic outcrops and open, dry, gravelly soils. 1035-1890m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.
<i>Calochortus longebarbatus</i> var. <i>longebarbatus</i>	long-haired star-tulip	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Meadows and seeps, lower montane coniferous forest, Great Basin scrub, vernal pools. In wet meadows or grassy areas along drainages within forest. Clay soils. 1005-1900 m.	No	Not Present. Suitable habitat is not present in the ESL.

<i>Calochortus monanthus</i>	single-flowered mariposa-lily	--/--/1A	BLM_S-Sensitive	Meadows and seeps. Known only from the type locality in a riparian meadow along the Shasta River. 745-800 m.	No	Not Present. Suitable habitat is not present in the ESL. This plant is presumed extirpated from known locations.
<i>Calochortus persistens</i>	Siskiyou mariposa-lily	-- /Rare/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest, North Coast coniferous forest. On dry shallow soils of metavolcanic origin. 1310-1735 m.	No	Not Present. ESL is out of species' elevation range.
<i>Campanula shetleri</i>	Castle Crag harebell	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Strictly limited to rock crevices in north-to northeast-facing granodiorite cliffs at Castle Crag. Associates include <i>Ivesia longibracteata</i> , another rare plant endemic to the Crag. Shrubs and trees in the surrounding overstory include <i>Pinus ponderosa</i> , <i>P. lambertiana</i> , <i>Pseudotsuga menziesii</i> , <i>Quercus chrysolepis</i> , <i>Lithocarpus densiflorus</i> , and <i>Arctostaphylos patula</i> . 4,000 to 6,000 ft (1,200 to 1,800 m).	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range. This species is endemic to a geographically separate location.
<i>Carex klamathensis</i>	Klamath sedge	--/--/1B.2	BLM_S-Sensitive	Meadows and seeps, chaparral, cismontane woodland. Serpentine. 1000-1140 m.	No	Not Present. ESL is out of species' elevation range.
<i>Castilleja rubicundula</i> subsp. <i>rubicundula</i>	pink creamsacs	--/--/1B.2	BLM_S-Sensitive	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Openings in chaparral or grasslands. On serpentine. 20-915 m.	Yes	Not present. Although the ESL falls within the species' elevation, microhabitat such as serpentine soil occurring in open chaparral or

						grassland or meadow and seep habitat required by the species does not exist within the project's limits. Species is not known to occur in Siskiyou County.
<i>Chaenactis suffrutescens</i>	Shasta chaenactis	--/--/1B.3	BLM_S-Sensitive   SB_BerrySB-Berry Seed Bank   USFS_S-Sensitive	Lower montane coniferous forest, upper montane coniferous forest. Sandy or serpentine soils. 750-2800 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.
<i>Chlorogalum pomeridianum var. minus</i>	dwarf soaproot	--/--/1B.2	BLM_S-Sensitive   SB_SBBG-Santa Barbara Botanic Garden   USFS_S-Sensitive	Chaparral. Serpentine. 305-1000 m.	No	Not present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range. Species is not known to occur in Siskiyou County.
<i>Cirsium ciliolatum</i>	Ashland thistle	--/E/2B.1	BLM_S-Sensitive	Cismontane woodland, valley and foothill grassland. Dry, grassy, south-facing slopes with rock outcrops. 800-1400m.	No	Not Present. ESL is out of species' elevation range.

<i>Clarkia biloba</i> subsp. <i>brandegeae</i>	Brandegee's clarkia	--/--/4.2	BLM_S-Sensitive	Chaparral, cismontane woodland, lower montane coniferous forest. Often in roadcuts. 75-915 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, species is not known to occur in Siskiyou County.
<i>Clarkia borealis</i> subsp. <i>arida</i>	Shasta clarkia	--/--/1B.1	BLM_S-Sensitive	Cismontane woodland, lower montane coniferous forest. Openings. 490-595 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, species is not known to occur in Siskiyou County.
<i>Clarkia borealis</i> subsp. <i>borealis</i>	northern clarkia	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, cismontane woodland, lower montane coniferous forest. Often seen in roadcuts. 400-1390 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range and suitable habitat is present, recent plant observations are restricted to the Shata Lake area.
<i>Clarkia gracilis</i> subsp. <i>albicaulis</i>	white- stemmed clarkia	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, cismontane woodland. Dry, grassy openings in chaparral or foothill woodland. Sometimes on serpentine. 245-1085 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range and there are grassy openings, species is not known to occur in Siskiyou County.

<i>Clarkia mildrediae</i> subsp. <i>mildrediae</i>	Mildred's clarkia	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Cismontane woodland, lower montane coniferous forest. On decomposed granite; sometimes on roadsides. 245-1710 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Clarkia mosquinii</i>	Mosquin's clarkia	--/--/1B.1	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Cismontane woodland, lower montane coniferous forest. Usually on steep, rocky cutbanks and slopes. 185-1220 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range and there are steep slopes adjacent to the ESL, species is not known to occur in Siskiyou County.
<i>Cordylanthus tenuis</i> subsp. <i>pallidus</i>	pallid bird's-beak	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest. Gravelly openings in brush patches next to coniferous forest; on volcanic alluvium. 1070-1615 m.	No	Not Present. ESL is out of species' elevation range.
<i>Cryptantha crinita</i>	silky cryptantha	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Cismontane woodland, valley foothill grassland, lower montane coniferous forest, riparian forest, riparian woodland. In gravelly streambeds. 60-1220 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Cypripedium fasciculatum</i>	clustered lady's slipper	--/--/4.2	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest, North Coast coniferous forest / serpentinite seeps and streambanks 100-2435 m.	No	Not Present. Suitable habitat is not present in the ESL.

<i>Cypripedium montanum</i>	mountain lady's slipper	--/--/4.2	BLM_S-Sensitive   USFS_S-Sensitive	Broadleaved upland forest, Lower montane coniferous forest, Cismontane woodland, North Coast coniferous forest/serpentine 185-2225 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Dendrocopaulon intricatum</i>	olive-thorn lichen (northern moon shrub)	--/--/--	BLM_S-Sensitive	Endemic to North America, occurring sporadically from southeastern Alaska through British Columbia: Washington Cascades, Siskiyou Mountains in Oregon, and California coast. They occur in areas with high humidity from coastal fog and frequent saturated soil. 0-1800 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Dendrocollybia racemosa</i>	branched collybia	--/--/--	BLM_S-Sensitive   USFS_S-Sensitive	Widespread in the Northern Hemisphere but always locally rare. In California, they are found in these counties: Del Norte, Humboldt, Marin, Mendocino, Siskiyou, and Trinity. In Siskiyou, they are found at the Duck Lake trailhead in Klamath National Forest. Gregarious, on rotting or mummified remnants of agarics or seldom in nutrient-rich leaf mulch, inforests.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Epilobium oregonum</i>	Oregon fireweed	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Bogs and fens, lower montane coniferous forest, upper montane coniferous forest. In and near springs and bogs; at least sometimes on serpentine. 500-2240 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Epilobium siskiyouense</i>	Siskiyou fireweed	--/--/1B.3	BLM_S-Sensitive   SB_BerrySB-Berry Seed Bank	Alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest. On slopes in gravelly, serpentine soils. 1700-2500 m.	No	Not Present. ESL is out of species' elevation range.

<i>Eriastrum brandegeae</i>	Brandegee's eriastrum	--/--/1B.1	BLM_S-Sensitive	Chaparral, cismontane woodland. On barren volcanic soils; often in open areas. 425-840 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, species is not known to occur in Siskiyou County.
<i>Eriogonum umbellatum</i> var. <i>ahartii</i>	Ahart's buckwheat	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Cismontane woodland, chaparral. Serpentinite. On slopes, in openings. 275-1480 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, species is not known to occur in Siskiyou County.
<i>Eriogonum ursinum</i> var. <i>erubescens</i>	blushing wild buckwheat	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest, montane chaparral. Rocky sites including scree and talus. 750-1900 m.	No	Not Present. ESL is out of species' elevation range.
<i>Erythronium hendersonii</i>	Henderson's fawn lily	--/--/2B.3	USFS_S-Sensitive	Lower montane coniferous forest. 300-1600m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Erythronium citrinum</i> var. <i>roderickii</i>	Scott Mtn. fawn lily	--/--/1B.3	USFS_S-Sensitive	Lower montane coniferous forest /Serpentinite, often rocky. 550-1600m.	Yes	Unlikely. Although the ESL falls within the species' elevation and there are steep slopes adjacent to the ESL that contain rock outcrops, the serpentine soil within or adjacent

						to the ESL are lacking. Species is not known to occur in Siskiyou County.
<i>Euphorbia hooveri</i>	Hoover's spurge	T/--/1B.2		Vernal pools. Vernal pools on volcanic mudflow or clay substrate. 25-250 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Euphorbia ocellata ssp. rattanii</i>	Stony Creek spurge	--/--/1B.2	BLM_S-Sensitive	Valley and foothill grassland, chaparral. Sandy or rocky soils. 85-800 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, species is not known to occur in Siskiyou County.
<i>Fritillaria gentneri</i>	Gentner's fritillary	E/--/1B.1	USFS_S-Sensitive	Cismontane woodland, chaparral. Open sites at edge of woodland or chaparral (in Oregon); sometimes on serpentine. 1005-1120 m.	No	Not Present. ESL is out of species' elevation range.
<i>Fritillaria pluriflora</i>	adobe-lily	--/--/1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, cismontane woodland, foothill grassland. Usually on clay soils; sometimes serpentine. 45-945 m.	No	Not Present. Suitable habitat is not present in the ESL.

<i>Galium serpenticum ssp. scotticum</i>	Scott Mountain bedstraw	--/--/1B.2	BLM_S-Sensitive	Lower montane coniferous forest. Generally on N-facing slopes on serpentine in mixed conifer forest. 1000-2075 m.	No	Not Present. ESL is out of species' elevation range.
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	--/E/1B.2	BLM_S-Sensitive	Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 10-2375 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Harmonia doris-nilesiae</i>	Niles' harmonia	--/--/1B.1	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest, chaparral, cismontane woodland. Serpentine barrens. 650-1660 m.	Yes	Unlikely. Although the ESL falls within the species' elevation, species is not known to occur in Siskiyou County.
<i>Harmonia stebbinsii</i>	Stebbins' harmonia	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, lower montane coniferous forest. Ultramafic soils, often along roads. 400-1580 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, species is not known to occur in Siskiyou County.
<i>Hesperolinon tehamense</i>	Tehama County western flax	--/--/1B.3	BLM_S-Sensitive	Chaparral, cismontane woodland. Serpentine barrens in chaparral. 100-1250 m.	Yes	Unlikely. Although the ESL falls within the species' elevation, microhabitat such as serpentine barren outcrops occurring in chaparral or woodland habitat does not exist

						within or adjacent to the project's limits. Species is not known to occur in Siskiyou County.
<i>Horkelia hendersonii</i>	Henderson's horkelia	--/--/1B.1	BLM_S-Sensitive   SB_BerrySB-Berry Seed Bank   USFS_S-Sensitive	Upper montane coniferous forest. Granitic peaks and talus slopes at high elevations. 2000-2300 m.	No	Not Present. ESL is out of species' elevation range.
<i>Hymenoxys lemmonii</i>	alkali hymenoxys	--/--/2B.2		Great Basin scrub, lower montane coniferous forest, meadows and seeps. Subalkaline soils. 805-2745 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Ivesia longibracteata</i>	Castle Crags ivesia	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest. Crevices in granitic cliffs. About 1200-1400 m.	No	Not Present. ESL is out of species' elevation range.
<i>Ivesia pickeringii</i>	Pickering's ivesia	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest, meadows and seeps. Mesic clay; usually serpentine seeps. 800-1510 m.	No	Not Present. Suitable habitat is not present in the ESL.

<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush	--/--/1B.1	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, valley and foothill grassland, cismontane woodland, vernal pools, meadows and seeps. Vernal mesic sites. Sometimes on edges of vernal pools. 35-1250 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Layia septentrionalis</i>	Colusa layia	--/--/1B.2	BLM_S-Sensitive	Chaparral, cismontane woodland, valley and foothill grassland. Scattered colonies in fields and grassy slopes in sandy or serpentine soil. 145-1095m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, species is not known to occur in Siskiyou County.
<i>Legenere limosa</i>	legenere	--/--/1B.1	BLM_S-Sensitive	Vernal pools. In beds of vernal pools. 1-880 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Leptosiphon nuttallii</i> ssp. <i>howellii</i>	Mt. Tedoc leptosiphon	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest. Serpentine soil. 1220-2800 m.	No	Not Present. ESL is out of species' elevation range.
<i>Lewisia cantelovii</i>	Cantelow's lewisia	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Broadleaved upland forest, lower montane coniferous forest, cismontane woodland, chaparral. Mesic rock outcrops and wet cliffs, usually in moss or clubmoss; on granitics or sometimes on serpentine. 330-1370 m.	No	Not Present. This plant is not known to occur in Siskiyou County.

<i>Lewisia cotyledon</i> var. <i>heckneri</i>	Heckner's lewisia	--/--/1B.2	BLM_S-Sensitive	Lower montane coniferous forest. Rocky places. 225-2100 m.	Yes	Unlikely. Species not observed in adjacent USGS quads in Siskiyou County. Plants commonly associated with this species are not present within the ESL.
<i>Lewisia cotyledon</i> var. <i>howellii</i>	Howell's lewisia	--/--/3.2		Chaparral, Cismontane woodland, Lower montane coniferous forest Typically found in rocky crevices and substrates, sometimes in open woodlands. Affinity to serpentine soil. 150-2010 m.	Yes	Unlikely. Although the ESL falls within the species' elevation, the only occurrence of this species in Siskiyou is from 1930 and requires fieldwork to confirm.
<i>Limnanthes floccosa</i> ssp. <i>bellingermana</i>	Bellinger's meadowfoam	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Meadows and seeps, cismontane woodland. Vernal wet sites including wet edges of meadows, and damp, stony flats. 290-1100 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	woolly meadowfoam	--/--/4.2		Chaparral, cismontane woodland, valley and foothill grassland, vernal pools. Vernal wet areas, ditches, and ponds. 60-1335 m.	No	Not Present. Suitable habitat is not present in the ESL.

<i>Lomatium peckianum</i>	Peck's lomatium	--/--/2B.2		Chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland. Rocky slopes, flats, & sometimes grassy openings, in yellow pine-black oak woodland, on volcanic soils. 700-1800 m.	Yes	Likely. Suitable habitat is present in the ESL and there is a CNDDDB record of occurrence of this plant from 1988 within 5 miles of the ESL.
<i>Microseris laciniata ssp. detlingii</i>	Detling's silverpuffs	--/--/2B.2		Cismontane woodland. Openings in clay soils. 600-1500 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Mimulus evanescens</i>	ephemeral monkeyflower	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Great Basin scrub, lower montane coniferous forest, pinyon-juniper woodland. Gravelly or rocky sites; vernal mesic. 1250-1740 m.	No	Not Present. ESL is out of species' elevation range.
<i>Minuartia howellii</i>	Howell's sandwort	--/--/1B.3	BLM_S-Sensitive	Lower montane coniferous forest, chaparral. Dry open places, often on serpentine hillsides and ridges, near Jeffrey pines. 550-1000 m.	Yes	Unlikely. Although the ESL falls within the species' elevation, there are no Jeffrey pines in the vicinity of the project's limits.
<i>Minuartia stolonifera</i>	Scott Mountain sandwort	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest. Serpentine soils, Jeffrey pine forest. 1250-1400 m.	No	Not Present. ESL is out of species' elevation range.

<i>Monardella venosa</i>	veiny monardella	--/--/1B.1	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden	Valley and foothill grassland, cismontane woodland. In heavy clay; mostly with grassland associates. Rediscovered in 1992. 60-410 m.	No	Not Present. ESL is out of species' elevation range.
<i>Navarretia leucocephala ssp. bakeri</i>	Baker's navarretia	--/--/1B.1	BLM_S-Sensitive	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Vernal pools and swales; adobe or alkaline soils. 5-1740 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Neviusia cliftonii</i>	Shasta snow-wreath	--/--/1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Cismontane woodland, lower montane coniferous forest, riparian woodland. Shaded, north-facing, or sheltered canyons. Sometimes on limestone. Mesic areas. 330-540 m.	Yes	Unlikely. Although suitable habitat is present in the ESL, species is not known to occur in Siskiyou County.
<i>Opuntia fragilis</i>	brittle prickly-pear	--/--/2B.1		Pinyon and juniper woodland. Volcanic soils. 820-880 m.	No	Not Present. Suitable habitat is not present in the ESL and ESL is out of species' elevation range.
<i>Orcuttia tenuis</i>	slender Orcutt grass	T/E/1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Vernal pools. Often in gravelly pools. 35-1760 m.	No	Not Present. Suitable habitat is not present in the ESL.

<i>Orthocarpus pachystachyus</i>	Shasta orthocarpus	--/--/1B.1	BLM_S-Sensitive	Great Basin scrub, meadows and seeps (?), valley and foothill grassland. Alluvial plains, hillsides. 830-995 m.	No	Not Present. ESL is out of species' elevation range.
<i>Orthotrichum holzingeri</i>	Holzinger's orthotrichum moss	--/--/1B.3		Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, pinyon-juniper woodland. Usually on rock in and along streams, rarely on tree limbs. 715-1800 m.	Yes	Likely. Although ESL has very sparse forested and woodland landscape, there are rock outcrops along and in stream.
<i>Packera eurycephala</i> var. <i>lewisrosei</i>	Lewis Rose's ragwort	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Cismontane woodland, lower montane coniferous forest, chaparral. Steep slopes and in canyons in serpentine soil, often along or near roads. 275-1890 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, this species is not known to occur in Siskiyou County.
<i>Paronychia ahartii</i>	Ahart's paronychia	--/--/1B.1	BLM_S-Sensitive	Valley and foothill grassland, vernal pools, cismontane woodland. Stony, nearly barren clay of swales and higher ground around vernal pools. 30-510 m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Penstemon filiformis</i>	thread-leaved beardtongue	--/--/1B.3	BLM_S-Sensitive	Cismontane woodland, lower montane coniferous forest. Dry stony sites, grassy openings, & meadows, often along trails & logging roads; sometimes on serpentine. 450-1875 m.	Yes	Unlikely. Although the ESL falls within the species' elevation range, occurrences in Siskiyou County have been confined to the

						southern portion of the county.
<i>Penstemon personatus</i>	closed-throated beardtongue	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Lower montane coniferous forest, upper montane coniferous forest, chaparral. Usually on N-facing slopes in metavolcanic soils. 1065-2120 m.	No	Not Present. ESL is out of species' elevation range.
<i>Phacelia cookei</i>	Cooke's phacelia	--/--/1B.1	BLM_S-Sensitive   USFS_S-Sensitive	Great Basin scrub, lower montane coniferous forest. Disturbed areas of loose, ashy volcanic sand at the edges of old roads. 1095-1700 m.	No	Not Present. ESL is out of species' elevation range.
<i>Phacelia greenei</i>	Scott Valley phacelia	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Closed-cone coniferous forest, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. Bare serpentine ridges and openings in yellow pine and red fir forest communities. 800-2440 m.	No	Not Present. ESL is out of species' elevation range.
<i>Phacelia leonis</i>	Siskiyou phacelia	--/--/1B.3	BLM_S-Sensitive	Upper montane coniferous forest, meadows and seeps. Sandy, moist soil, sometimes on serpentine. 1200-2000 m.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range.

<i>Phaeocollybia californica</i>	California phaeocollybia	--/--/--	BLM_S-Sensitive	Endemic to the Pacific Northwest. It is known from western Washington to coastal California. This taxon is presumed ectomycorrhizal associates of Pinaceae, forming gilled mushrooms that emerge above the soil surface at maturity. They are found associated with the roots of <i>Abies amabilis</i> , <i>Tsuga heterophylla</i> , <i>Pseudotsuga menziesii</i> , and <i>Picea sitchensis</i> . .63-1175m.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Phaeocollybia olivacea</i>	olive phaeocollybia	--/--/--	BLM_S-Sensitive	Endemic to western US from central Oregon coast south to Santa Cruz Co., California. In Siskiyou Co., it is known to occur in these areas: Rogue River National Forest, trail 954, Red Buttes Wilderness; Six Rivers National Forest, Klamath Mountains, 4.8 km up road to Haypress. Scattered or in arcs in mixed forests containing Fagaceae or Pinaceae in coastal lowlands.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' range.
<i>Phaeocollybia spadicea</i>	spadicea phaeocollybia	--/--/--	BLM_S-Sensitive	Endemic to western North America from Washington south to California. In California, it occurs in these counties: Del Norte, Humboldt, Marin, Mendocino, and Shasta. Solitary to scattered to closely gregarious in mature <i>Picea sitchensis</i> stands in coastal lowland regions.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' range.
<i>Phlox hirsuta</i>	Yreka phlox	E/E/1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Lower montane coniferous forest, upper montane coniferous forest. Open slopes and grasslands, on serpentine gravel. 830-1280 m.	No	Not Present. ESL is out of species' elevation range.

<i>Polemonium carneum</i>	Oregon polemonium	--/--/2B.2		Coastal prairie, coastal scrub, lower montane coniferous forest. 0-1830 m.	No	Not present. Suitable habitat is not present in the ESL. Species is not known to occur in Siskiyou County.
<i>Ptilidium californicum</i>	Pacific fuzz wort	--/--/4.3	BLM_S-Sensitive	Lower montane coniferous forest, Upper montane coniferous forest. Epiphytic on fallen and decaying logs and stumps. Rarely on boulders over humus. 0-1800 m.	Yes	Unlikely. Microhabitat containing fallen and decayed logs and stumps are not present within the ESL.
<i>Puccinellia howellii</i>	Howell's alkali grass	--/--/1B.1	BLM_S-Sensitive   SB_BerrySB-Berry Seed Bank	Meadows and seeps. Mineralized soils around mineral springs and seeps. One site known: 485 m.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range.
<i>Raillardella pringlei</i>	showy raillardella	--/--/1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Bogs and fens, meadows and seeps, upper montane coniferous forest. Streambanks, wet meadows and bogs in areas of serpentized rock. 1200-2290 m.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range.
<i>Rhynchospora californica</i>	California beaked-rush	--/--/1B.1	BLM_S-Sensitive	Bogs and fens, marshes and swamps, lower montane coniferous forest, meadows and seeps. Freshwater seeps and open marshy areas. 45-1010 m.	No	Not Present. Suitable habitat is not present in the ESL.

<i>Rorippa columbiae</i>	Columbia yellow cress	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Pinyon-juniper woodland, meadows and seeps, playas, vernal pools. Moist sandy soil, low gravelly river banks, basaltic lava slopes. 1200-1800 m.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range.
<i>Rupertia hallii</i>	Hall's rupertia	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Cismontane woodland, lower montane coniferous forest. On disturbed soils of roadsides and logged forests. 545-2250 m.	Yes	Unlikely. Although suitable habitat is present in the ESL, species is not known to occur in Siskiyou County.
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	--/--/1B.2	BLM_S-Sensitive	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-650 m.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range.
<i>Salvia dorrii</i> var. <i>incana</i>	fleshy sage	--/--/3		Great Basin scrub, Pinon & juniper woodlands High cascade range (near Hornbrook, Siskiyou, Co.): silty to rocky soils. Elevation: 300-1295 m.	No	Unlikely. Suitable habitat is not present in the ESL.
<i>Sedum albomarginatum</i>	Feather River stonecrop	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, lower montane coniferous forest. In crevices and on ledges of serpentine outcrops and slopes. 260-1950 m.	Yes	Unlikely. Although suitable habitat is present in the ESL, species is not known to occur in Siskiyou County.

<i>Sedum obtusatum ssp. paradisum</i>	Canyon Creek stonecrop	--/--/1B.3	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, lower montane coniferous forest, subalpine coniferous forest, broadleaved upland forest. Rock faces, in crevices of exposed granite. 300-1900 m.	Yes	Unlikely. Although suitable habitat is present in the ESL, species is not known to occur in Siskiyou County.
<i>Scirpus pendulus</i>	pendulous bulrush	--/--/2B.2		Meadows and seeps, freshwater marsh. Mesic sites. 800-1000 m.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range.
<i>Sidalcea robusta</i>	Butte County checkerbloom	--/--/1B.2	BLM_S-Sensitive	Chaparral, cismontane woodland. Small draws and rocky crevices. 75-400 m.	No	Not Present. ESL is out of species' elevation range.
<i>Silene occidentalis ssp. longistipitata</i>	long-stiped campion	--/--/1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, lower montane coniferous forest, upper montane coniferous forest. 1000-2000 m.	No	Not Present. ESL is out of species' elevation range.
<i>Smilax jamesii</i>	English Peak greenbrier	--/--/1B.3	BLM_S-Sensitive	North Coast coniferous forest, broadleaved upland forest, lower montane coniferous forest, upper montane coniferous forest, marshes and swamps. Along streams and lake margins. 580-2500 m.	Yes	Unlikely. Stream margins within the ESL does not typify the habitat requirements for the species occurring in marshes and swamps. This plant is not

						known to occur in Siskiyou County.
<i>Sowerbyella rhenana</i>	stalked orange peel fungus	--/--/--	BLM_S-Sensitive	Saprobic, growing gregariously or in clusters on the ground, usually in conifer woods; summer and fall, or in winter on the West Coast; apparently widely distributed in North America but more common in the west. Prefers wet mossy areas under conifers; northwestern California. Uncommon.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Spathularia flavida</i>	fairy fan	--/--/--	BLM_S-Sensitive	Presumably saprobic; growing gregariously or in clusters under conifers; summer and fall (winter in California); northern and montane North America.	No	Not Present. Suitable habitat is not present in the ESL.
<i>Trifolium jokerstii</i>	Butte County golden clover	--/--/1B.2	BLM_S-Sensitive   SB_USDA-US Dept of Agriculture	Valley and foothill grassland, vernal pools. Mesic sites in grassland. 50-385 m.	No	Not Present. Suitable habitat is not present in the ESL. ESL is out of species' elevation range.
<i>Trifolium siskiyouense</i>	Siskiyou clover	--/--/1B.1		Meadows and seeps. Mesic sites. 880-1500 m.	Yes	Unlikely. Although suitable habitat is present in the ESL along the Klamath River, this species has not been observed in the region for several decades.

<i>Triteleia grandiflora</i>	large-flowered triteleia	--/--/2B.1		Great Basin scrub, pinyon-juniper woodland. In rocky areas in sagebrush scrub, and in woodland. 700-1500 m.	No	Not Present. Suitable habitat is not present in the ESL.
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<b>Status Definition</b>	
<b>California Native Plant Society (CNPS)</b>	<b>Federal</b>
-- = No status	-- = No status
3 = Need more information about this plant (Review List)	E = Endangered
4 = Limited distribution (Watch List)	T = Threatened
1B = Rare, threatened, or endangered in California and elsewhere	
2B = Rare, threatened, or endangered in California but more common elsewhere	<b>State</b>
0.1 = Seriously endangered in California	-- = No status
0.2 = Fairly endangered in California	E = Endangered
0.3 = Not very endangered in California	

### Special Status Evaluation Wildlife

<i>Scientific Name</i>	<b>Common Name</b>	<u>Legal Status</u> Federal/State	<b>Other Status</b>	<b>Habitat</b>	<b>Habitat Present?</b>	<b>Potential for Occurrences &amp; Rationale</b>
<b>WILDLIFE</b>						
<b>Amphibians</b>						
<i>Anaxyrus exsul</i>	black toad	--/T	BLM_S-Sensitive   CDFW_FP-Fully Protected   IUCN_VU-Vulnerable   USFS_S-Sensitive	Found only in Deep Springs Valley, between the White and Inyo mountains, Inyo County, 5000-5200 feet in elevation. Near springs, watercourses, marshes, & wet meadows. Seeks cover under & between clumps of vegetation or surface objects.	No	Not present. The ESL is not in the range of and is well below species' typical elevation range. The ESL also does not contain suitable habitat for the species.
<i>Batrachoseps campi</i>	Inyo Mountains slender salamander	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_EN-Endangered   USFS_S-Sensitive	Moist canyons on the west & east slopes of the Inyo Mountains, where surface water is present. Takes cover under rocks on moist sandy loam in steep-walled canyons with permanent springs. Also in underground crevices.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Ensatina eschscholtzii croceator</i>	yellow-blotched salamander	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   USFS_S-Sensitive	Forests and well-shaded canyons, as well as oak woodlands and old chaparral. Needs surface objects, such as logs, boards, and rocks. Also needs old rodent burrows or other underground retreats.	No	Unlikely. A portion of the species' range is located in western Siskiyou County. The ESL does not contain suitable habitat for the species. It is well lit, dry, unfortested, disturbed, and located in eastern Siskiyou County.
<i>Hydromantes brunus</i>	limestone salamander	--/T	BLM_S-Sensitive   CDFW_FP-Fully Protected   IUCN_VU-Vulnerable   USFS_S-Sensitive	Limestone outcrops in digger pine-chaparral belt along the Merced River and its tributaries, from 800-2600 feet in elevation. California buckeye ia an indicator of optimal habitat. Seeks cover in limestone caverns, talus, rock fissures, surface objects.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Lithobates yavapaiensis</i>	lowland leopard frog	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Were found along the Colorado River and in streams near the Salton Sea.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Rana boylei</i>	foothill yellow-legged frog	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_NT-Near Threatened   USFS_S-Sensitive	Partly-shaded, shallow streams & riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Yes	Assumed present. No individuals observed in the ESL during site visits; however, CNDDDB documented occurrences in some perennial tributaries within a 10 mile radius (I-5 near Hilt).
<i>Rana pretiosa</i>	Oregon spotted frog	T/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable	Low swampy areas in mountainous woodlands & wet meadows, springs, small cold streams & lakes in northeastern Calif. Standing water needed for breeding.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Scaphiopus couchii</i>	Couch's spadefoot	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Temporary desert rainpools that last a least 7 days, with water temps > 15 C & with subterranean refuge sites close by. An insect food base especially termites must be available.	No	Not present. Suitable habitat is not present in the ESL for this species. There are no desert rainpools or subterranean refuge sites close by. Termites area unlikely to be available also.

<i>Scaphiopus hammondii</i>	Western spadefoot toad	--/--	BLM_S-Sensitive	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands	No	Not present. Suitable habitat is not present in the ESL for this species. There are no seasonal wetlands.
<b>Birds</b>						
<i>Accipiter gentilis</i>	northern goshawk	--/--	BLM_S-Sensitive   CDF_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	No	Not present. Suitable habitat is not present in the ESL.
<i>Agelaius tricolor</i>	tricolored blackbird	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_EN-Endangered   NABCI_RWL-Red Watch List   USFWS_BCC-	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony.	No	Not present. Suitable habitat is not present in the ESL. ESL is well above species' typical elevation range.

			Birds of Conservation Concern			
<i>Aquila chrysaetos</i>	golden eagle	--/--	BLM_S-Sensitive   CDF_S-Sensitive   CDFW_FP-Fully Protected   CDFW_WL-Watch List   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Rolling foothills, mountain areas, sage-juniper flats, & desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Yes	Unlikely. Individuals of this species may be present in the ESL for foraging; however, there is no suitable nesting habitat present in the ESL.
<i>Ardea herodias</i>	great blue heron	--/--	CDF_S-Sensitive   IUCN_LC-Least Concern	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats,	Yes	Unlikely. Individuals of this species may be present in the ESL for foraging; however, there is no suitable nesting habitat present in the ESL.

				rivers and streams, wet meadows.		
<i>Athene cunicularia</i>	burrowing owl	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	No	Not present. Suitable habitat is not present in the ESL.
<i>Buteo swainsoni</i>	Swainson's hawk	--/T	BLM_S-Sensitive   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No	Not present. Suitable habitat is not present in the ESL.

<i>Centrocercus urophasianus</i>	greater sage-grouse	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_NT-Near Threatened   USFS_S-Sensitive	Found in the northeastern, Great Basin portion of state. Restricted to flat/rolling terrain vegetated by sage-brush, upon which it depends for both food and shelter.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Charadrius montanus</i>	mountain plover	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_NT-Near Threatened   NABCI_RWL-Red Watch List   USFWS_BCC-Birds of Conservation Concern	Short grasslands, freshly plowed fields, newly sprouting grain fields, & sometimes sod farms. Short vegetation, bare ground & flat topography. Prefers grazed areas & areas with burrowing rodents.	No	Not present. Suitable habitat is not present in the ESL.
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	T/E	BLM_S-Sensitive   NABCI_RWL-Red Watch List   USFS_S-Sensitive   USFWS_BCC-Birds of	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of	No	Not present. Suitable habitat is not present in the ESL.

			Conservation Concern	blackberry, nettles, or wild grape.		
Colaptes chrysoides	gilded flicker	--/E	BLM_S-Sensitive   IUCN_LC-Least Concern   NABCI_YWL-Yellow Watch List   USFWS_BCC-Birds of Conservation Concern	Sonoran desert habitat and riparian woodlands along the Colorado River. Uses willows, cottonwood, tree yucca and, when available, saguaro cactus.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
Elanus leucurus	white-tailed kite	--/--	BLM_S-Sensitive   CDFW_FP-Fully Protected   IUCN_LC-Least Concern	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	No	Not present. Suitable habitat is not present in the ESL.

<i>Empidonax traillii</i>	willow flycatcher	--/E	IUCN_LC- Least Concern   USFS_S- Sensitive   USFWS_BCC- Birds of Conservation Concern	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2000-8000 ft elevation Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	No	Not present. Extensive thickets of low, dense willows habitat is not present in the ESL.
<i>Falco mexicanus</i>	prairie falcon	--/--	CDFW_WL- Watch List   IUCN_LC- Least Concern   USFWS_BCC- Birds of Conservation Concern	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	No	Not present. Suitable habitat is not present in the ESL.
<i>Falco peregrinus anatum</i>	American peregrine falcon	D/D	CDF_S- Sensitive   CDFW_FP- Fully Protected   USFWS_BCC- Birds of Conservation Concern	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Yes	Unlikely. Although the ESL is generally within the species' range; however, species' presence would most likely be only in the winter.

<i>Grus canadensis tabida</i>	greater sandhill crane	--/T	BLM_S-Sensitive   CDFW_FP-Fully Protected   USFS_S-Sensitive	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 mi of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites	No	Not present. Suitable habitat is not present in the ESL.
<i>Haliaeetus leucocephalus</i>	bald eagle	D/E	BLM_S-Sensitive   CDF_S-Sensitive   CDFW_FP-Fully Protected   IUCN_LC-Least Concern   USFS_S-Sensitive   USFWS_BCC-Birds of Conservation Concern	Ocean shore, lake margins, & rivers for both nesting & wintering. Most nests within 1 mi of water. Nests in large, old-growth, or dominant live tree w/open branches, especially ponderosa pine. Roosts communally in winter.	Yes	Unlikely. Individuals of this species may be presence in the ESL for foraging; however, there is no suitable nesting habitat present in the ESL.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	--/T	BLM_S-Sensitive   CDFW_FP-Fully Protected   IUCN_NT-Near Threatened	Inhabits freshwater marshes, wet meadows & shallow margins of saltwater marshes bordering larger bays. Needs water depths of about	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

			NABCI_RWL- Red Watch List   USFWS_BCC- Birds of Conservation Concern	1 inch that do not fluctuate during the year & dense vegetation for nesting habitat.		
<i>Melanerpes uropygialis</i>	Gila woodpecker	--/E	BLM_S- Sensitive   IUCN_LC- Least Concern   USFWS_BCC- Birds of Conservation Concern	In California, inhabits cottonwoods and other desert riparian trees, shade trees, and date palms. Cavity nester in riparian trees or saguaro cactus.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Micrathene whitneyi</i>	elf owl	--/E	BLM_S- Sensitive   IUCN_LC- Least Concern   USFWS_BCC- Birds of Conservation Concern	In California, nesting area limited to cottonwood-willow & mesquite riparian zone along the Colorado River. Nest in deserted woodpecker holes, often in larger trees which offer insulation from high daytime temperatures.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Oceanodroma furcata</i>	fork-tailed storm-petrel	--/--	BLM_S- Sensitive   CDFW_SSC- Species of Special Concern	Colonial nester on small, offshore islets. Forages over the open ocean, usually well off- shore. Birds choose off-shore islets which	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

			IUCN_LC- Least Concern	provide nesting crannies beneath rocks or sod for burrowing.		
<i>Oceanodroma homochroa</i>	ashy storm- petrel	--/--	BLM_S- Sensitive   CDFW_SSC- Species of Special Concern   IUCN_EN- Endangered   NABCI_RWL- Red Watch List   USFWS_BCC- Birds of Conservation Concern	Colonial nester on off- shore islands. Usually nests on driest part of islands. Forages over open ocean. Nest sites on islands are in crevices beneath loosely piled rocks or driftwood, or in caves.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Pelecanus occidentalis californicus</i>	California brown pelican	D/D	BLM_S- Sensitive   CDFW_FP- Fully Protected   USFS_S- Sensitive	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground- dwelling predators. Roosts communally.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Riparia riparia</i>	bank swallow	--/T	BLM_S-Sensitive   IUCN_LC-Least Concern	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	No	Not present. Suitable habitat is not present in the ESL.
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	T/--	CDFW_SSC-Species of Special Concern	Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices.	No	Unlikely. Although the ESL is generally within the species' range, there is no broken tops or cavities habitat in the ESL for the species. There are recent US Forest Service records of this species' presence > 3 miles of the ESL.
<i>Strix occidentalis occidentalis</i>	California spotted owl	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   USFS_S-Sensitive	Sierra Nevada from Lassen County south to northern Kern County, and in the Transverse, Peninsular and southern coastal mountains. Mature	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

				forest with suitable nesting trees. In southern California, occurs in oak and oak-conifer habitats in addition to mature conifer forest.		
<i>Synthliboramphus hypoleucus</i>	Xantus' murrelet	--/T	BLM_S-Sensitive	It breeds on islands off California and Mexico, specifically on islands in the Channel Islands of California, the largest colonies being on the Coronado Islands and on Santa Barbara Island, and also several islands off Baja California, including Isla Guadalupe. After the breeding season it disperses north at sea, usually to offshore waters, as far north as British Columbia. It nests in small crevices, caves and under dense bushes on arid islands in loose scattered colonies.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Toxostoma bendirei</i>	Bendire's thrasher	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable   NABCI_RWL-Red Watch List   USFWS_BCC-Birds of Conservation Concern	Migratory; local spring/summer resident in flat areas of desert succulent shrub/Joshua tree habitats in Mojave Desert. Nests in cholla, yucca, paloverde, thorny shrub, or small tree, usually 0.5 to 20 feet above ground.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Toxostoma lecontei macmillanorum</i>	San Joaquin Le Conte's thrasher	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern	In the southern San Joaquin Valley, restricted to the Taft-Maricopa area; also occurs in the upper Kern River basin, Owens Valley, and Mojave and Sonora Deserts Sparsely vegetated plains, canyon floors, gently sloping hills, large washes, and alkali scrublands.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Vermivora luciae</i> (nesting)	Lucy's warbler	--/--	BLM_S-Sensitive	Sparse in southeast California. Mesquite along desert streams and washes; willows, cottonwoods.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Vireo bellii arizonae</i>	Arizona bell's vireo	--/E	BLM_S-Sensitive   IUCN_NT-Near Threatened   USFWS_BCC-Birds of Conservation Concern	Summer resident along Colorado River. Chiefly inhabits willow thickets with undergrowth of <i>Baccharis glutinosa</i> . Nests in willow, mesquite, or other small tree/shrub, within 8 ft (usually 2-3 ft) of ground.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Vireo vicinior</i>	gray vireo	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   NABCI_YWL-Yellow Watch List   USFS_S-Sensitive   USFWS_BCC-Birds of Conservation Concern	Dry chaparral; west of desert, in chamise-dominated habitat; mountains of Mojave Desert, associated with juniper & <i>Artemisia</i> . Forage, nest, and sing in areas formed by a continuous growth of twigs, 1-5 ft above ground.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<b>Crustaceans</b>						
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	E/--	IUCN_EN-Endangered	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	T/--	IUCN_VU-Vulnerable	Endemic to the grasslands of the Central Valley, Central Coast mtns, and South Coast mtns, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	E/--	IUCN_EN-Endangered	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

				bottomed swales of unplowed grasslands. Some pools are mud-bottomed & highly turbid.		
<b>Fish</b>						
<i>Catostomus murivallis</i>	Wall Canyon Sucker	--/--	BLM_S-Sensitive	Found in warm to cool waters of Wall Canyon and Mountain View creek systems; spawning pairs have been found in deep pools in Wall Creek. Adult suckers have been observed using boulders and aquatic vegetation as cover, and juveniles have been observed feeding over vegetation clumps. Wall Canyon sucker was first found in higher abundance in very turbid waters with heavily silted streambeds and in unvegetated banks that were damaged by livestock.	No	Not present. The ESL is a long ways away from the species range.

<i>Catostomus rimiculus</i>	Klamath smallscale sucker	--/--	IUCN_LC- Least Concern	They are a bottom-dwelling fish that occur in many of California's lakes and streams. They are found in small to medium rivers with silt or rock substrate. The species prefer slow moving water or pools of water.	Yes	Assumed present. No individuals observed in the ESL during site visits; however, there are slow moving water along the edge of the river and the ESL is within the species range.
<i>Catostomus snyderi</i>	Klamath largescale sucker	--/--	AFS_TH- Threatened   CDFW_SSC- Species of Special Concern   IUCN_NT-Near Threatened	Native to the Klamath River & Lost River-Clear Lake systems of Oregon and California. Inhabits both lentic & lotic habitats, but primarily a riverine fish, they migrate upstream to spawn in spring.	Yes	Assumed present. No individuals observed in the ESL during site visits; however, CNDDB documented the closest occurrence is approximately 13.3 rivermiles away in the Iron Gate Reservoir.
<i>Chasmistes brevirostris</i>	shortnose sucker	E/E	AFS_EN- Endangered   CDFW_FP- Fully Protected   IUCN_EN- Endangered	Native to the Klamath and Lost River systems in California & Oregon. Spend most of year in open waters of large lakes. They feed on plankton. Spawn in tributary streams.	No	Not present. The ESL is not in the range of the species. The species are known to occur as low as Iron Gate Reservoir but not below there.

<i>Cottus asperrimus</i>	rough sculpin	--/T	AFS_VU-Vulnerable   BLM_S-Sensitive   CDFW_FP-Fully Protected   IUCN_VU-Vulnerable	Restricted to the Pit River above and below the falls at Burney, & the Hat Creek & Fall River subdrainages. Found mostly on the muddy bottoms of large streams.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Deltistes luxatus</i>	Lost River sucker	E/E	AFS_EN-Endangered   CDFW_FP-Fully Protected   IUCN_EN-Endangered	Native to the Lost River system in California & Oregon. Primarily a lake species found in fairly deep water. Adults run up tributary streams to spawn in the spring.	No	Not present. The ESL is not in the range of the species. The species are known to occur as low as Iron Gate Reservoir but not below there.
<i>Entosphenus similis</i>	Klamath River lamprey	--/--	AFS_VU-Vulnerable   BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   USFS_S-Sensitive	Upper Klamath River and upper Klamath Lake. Adults need coarser gravel-rubble substrate for spawning. Ammocoetes need sand/mud substrate in shallow pools.	Yes	Assumed present; however, unlikely. Because the ESL lack a supply of fine sediment that favors the development of pool and riffle habitat along the river margins that are important burrowing habitat for the larval lamprey.

<i>Entosphenus tridentatus</i>	Pacific lamprey	--/--	AFS_TH- Threatened   CDFW_SSC- Species of Special Concern   USFS_S- Sensitive	Found in Pacific Coast streams north of San Luis Obispo Co., however regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temps between 12-18 C. Ammocoetes need soft sand or mud.	Yes	Assumed present. No individuals observed in the ESL during site visits; however, individuals of this species have been observed in the nearby Shasta River and may very well be in other perennial tributaries of the Klamath River. Adults or juveniles may cross the ESL on their way upstream to spawning grounds or downstream to the ocean.
<i>Lavinia symmetricus ssp. 3</i>	Red Hills roach	--/--	AFS_VU- Vulnerable   BLM_S- Sensitive   CDFW_SSC- Species of Special Concern	Small streams near Sonora. Found in areas with serpentine soil.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Oncorhynchus kisutch</i>	coho salmon - southern Oregon / northern California ESU	T/T	AFS_TH- Threatened	Fed listing refers to populations between Cape Blanco, Oregon & Punta Gorda, Humboldt County, California. State listing refers to populations between the Oregon border & Punta Gorda, California.	Yes	Assumed present. Adults or juveniles may cross the ESL on their way upstream to spawning grounds or on their way downstream to more suitable rearing habitat. Juveniles may rear along the margins of the river.
<i>Oncorhynchus mykiss irideus</i>	KMP-summer steelhead	--/--	USFS_S- Sensitive	Watersheds with cool, swift, shallow water and clean loose gravel for spawning	Yes	Assumed present; however, unlikely. Because individuals are more common in the lower reaches of the Klamath River tributaries, and they are uncommon above Seiad Valley.
<i>Oncorhynchus mykiss irideus</i>	KMP-winter steelhead trout	--/--	USFS_S- Sensitive	Watersheds with cool, swift, shallow water and clean loose gravel for spawning	Yes	Assumed present; however, unlikely. Because individuals are more common in the lower reaches of the Klamath River tributaries, and they are

						uncommon above Seiad Valley.
Oncorhynchus tshawytscha	chinook salmon - upper Klamath and Trinity Rivers ESU.	--/--	CDFW_SSC-Species of Special Concern   USFS_S-Sensitive	Spring-run chinook in the Trinity River & the Klamath River upstream of the mouth of the Trinity River. Major limiting factor for juvenile chinook salmon is temperature, which strongly effects growth & survival.	yes	Assumed present. Adults or juveniles may cross the ESL on their way upstream to spawning grounds or on their way downstream to more suitable rearing habitat. Juveniles may rear along the margins of the river.
Rhinichthys osculus ssp. 1	Amargosa Canyon speckled dace	--/--	AFS_TH-Threatened   BLM_S-Sensitive   CDFW_SSC-Species of Special Concern	Found only in Amargosa Canyon and tributaries of the Amargosa River, esp. Willow Creek & Willow Creek Reservoir. Prefers pools with relatively deep water (0.5 - 0.75 m) and slow water velocity.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

Rhinichthys osculus ssp. 2	Owens speckled dace	--/--	AFS_TH- Threatened   CDFW_SSC- Species of Special Concern	Small streams and springs in Owens Valley. Occupies a variety of habitats. Rarely found in water > 29 C.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<b>Insects</b>						
<i>Aegialia concinna</i>	Ciervo aegilian scarab beetle	--/--	BLM_S- Sensitive   IUCN_VU- Vulnerable	Known only from Fresno County in sandy substrates.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Bombus crotchii</i>	Crotch bumble bee	--/--		Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	No	Unlikely. The ESL is fairly disturbed. Any Phacelia, Eschscholzia, and eriogonum present would likely be limited and would occur mostly on adjacent hillside where the ESL does extend into it.

<i>Bombus franklini</i>	Franklin's bumble bee	--/--	IUCN_CR- Critically Endangered   XERCES_CI- Critically Imperiled	Species has precipitously declined since 1998; found only in S. Ore./N. Cal. between the coast and Sierra-Cascade ranges. It probably nests underground in abandoned rodent burrows or occasionally in clumps of grass on the ground. Food plant association include Lupinus, Eschscholzia, Agastache, and Monardella. 162-2340 m.	No	Unlikely. The ESL is fairly disturbed. Any Lupinus, and Eschscholzia present would likely be limited and would occur mostly on adjacent hillside where the ESL does extend into it. Isolated patches of these plant species would not be sufficient to support these bees. Additionally, the abundance of rodent burrows and the presence of undisturbed grassland do not exist within the ESL.
<i>Bombus morrisoni</i>	Morrison bumble bee	--/--	IUCN_VU- Vulnerable	From the Sierra-Cascades ranges eastward across the intermountain west. Food plant genera include Cirsium, Cleome, Helianthus, Lupinus,	No	Unlikely. The ESL is fairly disturbed. Any Cirsium, Cleome, Lupinus, and Melilotus present would likely be sporadic and along the roadway

				Chrysothamnus, and Melilotus.		shoulders and most would occur on adjacent hillside where the ESL does extend into it.
<i>Bombus occidentalis</i>	western bumble bee	--/--	USFS_S-Sensitive   XERCES_IM-Imperiled	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease. The habitat for this species is described as open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows.	No	Unlikely. The ESL does not contain suitable habitat.
<i>Callophrys thornei</i>	Thorne's hairstreak	--/--	BLM_S-Sensitive	Associated with the endemic tecate cypress ( <i>Cupressus forbesii</i> ). Only known from vicinity of Otay Mountain.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Coelus gracilis</i>	San Joaquin dune beetle	--/--	BLM_S-Sensitive   IUCN_VU-Vulnerable	Inhabits fossil dunes along the western edge of San Joaquin Valley; extirpated from Antioch Dunes (type locality). Inhabits sites	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

				containing sandy substrates.		
<i>Trithyreus shoshonensis</i>	Shoshone Cave whip-scorpion	--/--	BLM_S-Sensitive	Upper Shoshone Cave, near Shoshone, Inyo County, California. In warm and humidify cave. Found under and about wood debris or walls.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Hydroporus leechi</i>	Leech's skyline diving beetle	--/--		Aquatic. Known habitat is a pond shore.	No	Not present. The ESL does not contain suitable habitat.
<b>Mammals</b>						
<i>Ammospermophilus nelsoni</i>	Nelson's antelope squirrel	--/T	BLM_S-Sensitive   IUCN_EN-Endangered	Western San Joaquin Valley from 200-1200 ft elev. On dry, sparsely vegetated loam soils. Dig burrows or use k-rat burrows. Need widely scattered shrubs, forbs & grasses in broken terrain with gullies & washes	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Antrozous pallidus</i>	pallid bat	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive   WBWG_H-High Priority	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Yes	Assumed present. Frequently roosts in bridges. Utilizes bridges for day, maternity and night roosts.
<i>Brachylagus idahoensis</i>	pygmy rabbit	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive	Sagebrush, bitterbrush, & pinyon-juniper habitats in Modoc, Lassen & Mono counties. Tall dense, large-shrub stages of sagebrush, greasewood & rabbitbrush. May avoid heavily grazed areas.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Canis lupus</i>	gray wolf	E/E	IUCN_LC-Least Concern	Habitat generalists, historically occupying diverse habitats including tundra, forests, grasslands, and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water, and low human contact.	No	Unlikely. The ESL is located within a disturbed and populated area. Presence in the ESL is likely to be brief and transient in nature.

<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	--/CT	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive   WBWG_H-High Priority	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls & ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Yes	Assumed present. Sometimes uses bridges for roosting for day, maternity or night roosts, especially if a portion of a bridge is analogous to a cave-like structure.
<i>Dipodomys nitratoides brevinasus</i>	short-nosed kangaroo rat	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable	Western side of San Joaquin Valley in grassland and desert shrub associations, especially Atriplex. Occures in highly alkaline soils around Soda Lake. Needs friable soils. Favors flat to gently sloping terrain.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Euderma maculatum</i>	spotted bat	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   WBWG_H-High Priority	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock	Yes	Assumed present. Roosts in cliffs and rock crevices. Could be roosting in surrounding rock slopes and using adjacent habitat for foraging.

				crevices in cliffs or caves for roosting.		
<i>Eumops perotis californicus</i>	western mastiff bat	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   WBWG_H-High Priority	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral etc. Roosts in crevices in cliff faces, high buildings, trees & tunnels.	Yes	Assumed present. Roosts in cliff/rock crevices. May roost in surrounding rock slopes. May forage around bridge and riparian vegetation along river margins.
<i>Macrotus californicus</i>	California leaf-nosed bat	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   WBWG_H-High Priority	Desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis habitats. Needs rocky, rugged terrain with mines or caves for roosting.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Microtus californicus vallicola</i>	Owens Valley vole	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern	Found in wetlands and lush grassy ground in the Owens Valley. Needs friable soil for burrowing. Eats grasses, sedges & herbs. Clips grass to	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

				make runways leading from burrows.		
<i>Myotis ciliolabrum</i>	western small-footed myotis	--/--	BLM_S-Sensitive   IUCN_LC-Least Concern   WBWG_M-Medium Priority	Wide range of habitats mostly arid wooded & brushy uplands near water. Seeks cover in caves, buildings, mines & crevices. Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects.	Yes	Assumed present. Sometimes uses bridges for day and/or night roosts.
<i>Myotis evotis</i>	long-eared myotis	--/--	BLM_S-Sensitive   IUCN_LC-Least Concern   WBWG_M-Medium Priority	Found in all brush, woodland & forest habitats from sea level to about 9000 ft. prefers coniferous woodlands & forests. Nursery colonies in buildings, crevices, spaces under bark, & snags. Caves used primarily as night roosts.	Yes	Assumed present. This species roosts in buildings, crevices, spaces under bark, and snags.

<i>Myotis thysanodes</i>	fringed myotis	--/--	BLM_S-Sensitive   IUCN_LC-Least Concern   USFS_S-Sensitive   WBWG_H-High Priority	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood & hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.	yes	Assumed present. Most documented roosts have been in rock crevices, caves, or anthropogenic structures.
<i>Myotis velifer</i>	cave myotis	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   WBWG_M-Medium Priority	Lowlands of the Colorado River and adjacent mountain ranges. Require caves or mines for roosting.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Myotis yumanensis</i>	Yuma myotis	--/--	BLM_S-Sensitive   IUCN_LC-Least Concern   WBWG_LM-Low-Medium Priority	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Yes	Assumed present. Frequently roost in bridges. Uses bridge roosts for day, maternity and night roosts.

<i>Ovis canadensis nelsoni</i>	desert bighorn sheep	--/--	BLM_S-Sensitive   CDFW_FP-Fully Protected   USFS_S-Sensitive	Widely distributed from the White Mtns in Mono Co. to the Chocolate Mts in Imperial Co. Open, rocky, steep areas with available water and herbaceous forage.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Pekania pennanti</i>	fisher - West Coast DPS	PT/CT	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   USFS_S-Sensitive	Intermediate to large-tree stages of coniferous forests & deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs & rocky areas for cover & denning. Needs large areas of mature, dense forest.	No	Unlikely. The ESL is within this species' known range; however, no suitable denning habitat or forested landscape is present in the ESL. Presence is the ESL is likely to be brief and transient in nature.
<i>Perognathus alticolus alticolus</i>	white-eared pocket mouse	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_EN-Endangered   USFS_S-Sensitive	Ponderosa & Jeffrey pine habitats; also in mixed chaparral & sagebrush habitats in the San Bernardino Mtns. Burrows are constructed in loose soil.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Perognathus inornatus</i>	San Joaquin Pocket Mouse	--/--	BLM_S-Sensitive	Grassland, oak savanna and arid scrubland in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley and adjacent foothills, south to the Mojave Desert. Associated with fine-textured, sandy, friable soils.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Perognathus longimembris bangsi</i>	Palm Springs pocket mouse	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern	Desert riparian, desert scrub, desert wash & sagebrush habitats. most common in creosote-dominated desert scrub. Rarely found on rocky sites. Occurs in all canopy coverage classes.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Perognathus parvus xanthonotus</i>	yellow-eared pocket mouse	--/--	BLM_S-Sensitive	Known only from four canyons in the Tehachapi Mountains, northeastern Kern County. Elevational range 4000-5300 ft. Desert shrub and Joshua tree communities with scattered pinyon pines. Occupies underground burrow when inactive.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species. The ESL is also below species' typical elevation range.

<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	--/T	BLM_S-Sensitive   IUCN_VU-Vulnerable	Open desert scrub, alkali scrub & Joshua tree woodland. Also feeds in annual grasslands. Restricted to Mojave Desert. Prefers sandy to gravelly soils, avoids rocky areas. Uses burrows at base of shrubs for cover. Nests are in burrows.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Xerospermophilus tereticaudus chlorus</i>	Palm Springs round-tailed ground squirrel	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern	Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, & levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<b>Mollusks</b>						
<i>Ancotrema voyanum</i>	hooded lancetooth	--/--	BLM_S-Sensitive	Occurs mostly in the Shasta-Trinity National forests in the northern half of Trinity County. Associated with limestone substrates, mostly in an elevation range of 168-960	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

				<p>meters. All known occurrences are near streams or in draws (intermittent stream channel). Needs permanent dampness. Late successional conditions provide suitable habitat conditions.</p>		
<p><i>Helminthoglypta hertleini</i></p>	<p>Oregon shoulderband</p>	<p>--/--</p>	<p>BLM_S-Sensitive</p>	<p>Found on basaltic talus slopes; partial riparian associate. Found wherever permanent ground cover/moisture is available. Somewhat adapted to dry conditions during a portion of the year.</p>	<p>No</p>	<p>Unlikely. The ESL is not within the species' known range.</p>
<p><i>Helminthoglypta talmadgei</i></p>	<p>Trinity shoulderband</p>	<p>--/--</p>	<p>BLM_S-Sensitive</p>	<p>Limestone rockslides, litter in coniferous forests, old mine tailings, and along shaded streams in the Klamath Mountains.</p>	<p>No</p>	<p>Unlikely. The ESL is not within the species' known range.</p>

<i>Margaritifera falcata</i>	western pearlshell	--/--		Aquatic. Prefers lower velocity waters.	No	Unlikely. There are no lower velocity waters with appropriate anchoring substrate for this mollusk in the ESL. Individuals of this taxon have been observed in the nearby Shasta River and upstream in Klamath River, but the ESL does not extend into suitable habitat for this species. Individuals observed are located approximately 2 river miles upstream from the confluence of Shasta and Klamath River, and approximately 3 river miles upstream from proposed project location.
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<i>Monadenia chaceana</i>	Siskiyou shoulderband	--/--	BLM_S-Sensitive	Lower reaches of major drainages. Found in talus and rock slides, under rocks and woody debris in moist conifer forests, caves, and riparian corridors in shrubby areas. Rocks and woody debris serve as refugia during the summer.	No	Unlikely. Although the ESL is generally within the species' range, but there is no suitable habitat present in the ESL for this species. There are no talus and rock slides or moist woody debris. The closest occurrence records are > 1 mile to the southwest and > 3 miles to the northeast.
<i>Monadenia circumcarinata</i>	keeled sideband	--/--	BLM_S-Sensitive   IUCN_VU-Vulnerable	Endemic to the Tuolumne River canyon, in association with steep limestone outcrops and talus slopes. Occurs in limestone where fractures or loose talus allow deep, sub-surface sheltering.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Monadenia mormonum hirsuta</i>	hirsute Sierra sideband	--/--	BLM_S-Sensitive	Known only from a few basaltic outcrops in Tuolumne County.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Monadenia tuolumneana</i>	Tuolumne sideband	--/--	BLM_S-Sensitive	Endemic to the Tuolumne River canyon, in association with steep limestone outcrops and talus slopes. Occurs in limestone where fractures or loose talus allow deep, sub-surface sheltering.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Pisidium ultramontanum</i>	montane peaclam	--/--	IUCN_VU-Vulnerable   USFS_S-Sensitive	Found in spring-influenced streams, lakes, & pools in Northeastern California. Strongly associated with sands or small clean gravels.	No	Unlikely. The ESL is within this species' known range; however, no suitable sand-gravel substrates habitat is present on the periphery of the river in the ESL. This portion of the Klamath River within the ESL is also not influenced by a spring.

<i>Trilobopsis tehamana</i>	Tehama chaparral	--/--	BLM_S-Sensitive   USFS_S-Sensitive	Endemic to Butte, Tehama, and Siskiyou counties. Usually found in rocky talus, but has also been found under leaf litter or woody debris within 100 meters of limestone outcrops.	No	Unlikely. Although the ESL is generally within the species' range, but there is no suitable habitat present in the ESL for this species. There are no rocky talus or limestone outcrops within the ESL. The closest occurrence record is > 1/4 mile to the southwest.
<b>Reptiles</b>						
<i>Coleonyx switaki</i>	barefoot gecko	--/T	BLM_S-Sensitive   IUCN_LC-Least Concern	Found only in areas of massive rock & rock outcrops at the heads of canyons. Occurs in rock cracks & crevices	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Elgaria panamintina</i>	Panamint alligator lizard	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable   USFS_S-Sensitive	Found in the White & Inyo Mtns to the north & west, & the Panamint Mtns to the south & east; 2800-6800 ft elev. Inhabits areas near permanent water, in canyons, damp gullies, and	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

				rocky areas near dense vegetation.		
<i>Emys marmorata</i>	western pond turtle	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable   USFS_S-Sensitive	All populations orth of San Francisco Bay area and populations from the Central Valley north. A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Yes	A northwestern pond turtle was observed within the Klamath River upstream of the ESL. It was basking on a boulder along the stream edge. See NES for furhter discussion.
<i>Emys pallida</i>	southwestern pond turtle	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern	The central coast range south of the San Francisco Bay and the Mojave River. Valley locations with slow-moving waterways. Upland habitat and	No	Not present. The ESL is not in the species' range.

				basking sites must be easily accessible.		
<i>Heloderma suspectum cinctum</i>	banded gila monster	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_NT-Near Threatened	Inhabits the lower slopes of rocky canyons and arroyos, but is also found on desert flats among scrub and succulents. Eggs are laid in soil in excavated nests; thus, soil must be sandy or friable. Found in areas moister than surroundings.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Lampropeltis zonata (parvirubra)</i>	California mountain kingsnake (San Bernardino population)	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive	Bigcone spruce & chaparral at lower elev. Black oak, incense cedar, Jeffrey pine & ponderosa pine at higher elevations. Well-lit canyons with rocky outcrops or rocky talus.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

<i>Lampropeltis zonata</i> ( <i>pulchra</i> )	California mountain kingsnake (San Diego population)	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive	Restricted to the San Gabriel and San Jacinto mtns of Southern California. Inhabits a variety of habitats, including valley-foothill hardwood, coniferous, chaparral, riparian, and wet meadows.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Phrynosoma blainvillii</i>	coast horned lizard	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, & abundant supply of ants & other insects.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Phrynosoma mcallii</i>	flat-tailed horned lizard	--/CE	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_NT-Near Threatened	Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. Critical habitat element is fine sand, into which lizards burrow to avoid temp extremes;	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.

				requires vegetative cover and ants.		
<i>Plestiodon skiltonianus interparietalis</i>	Coronado Island skink	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern	Grassland, chaparral, pinon-juniper & juniper sage woodland, pine-oak & pine forests in Coast Ranges of Southern Calif. Prefers early successional stages or open areas. Found in rocky areas close to streams & on dry hillsides.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Sceloporus graciosus graciosus</i>	northern sagebrush lizard	--/--	BLM_S-Sensitive	Ground dweller, usually found near bushes, brush heaps, logs, or rocks. Needs good light, open ground, & scattered low bushes.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Thamnophis hammondi</i>	two-striped garter snake	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along	No	Not present. The ESL is not in the species' range.

			USFS_S-Sensitive	streams with rocky beds and riparian growth.		
<i>Uma notata</i>	Colorado Desert fringe-toed lizard	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_NT-Near Threatened	Colorado Desert region; in sand dunes, dry lakebeds, sandy beaches or riverbanks, desert washes, or sparse desert scrub. Requires fine, loose, windblown sand (for burrowing); shrubs or annuals for arthropod production.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<i>Uma scoparia</i>	Mojave fringe-toed lizard	--/--	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Fine, loose, wind-blown sand in sand dunes, dry lakebeds, riverbanks, desert washes, sparse alkali scrub & desert scrub. Shrubs or annual plants may be necessary for arthropods found in the diet.	No	Not present. The ESL is not in the range of and does not contain suitable habitat for the species.
<b>Status Explanation:</b> Federal -- = No status definition D = Delisted E = Endangered				<b>State</b> -- = No status definition CT = Candidate threatened		

<b>PT = proposed for federal listing as threatened under the federal Endangered Species Act</b>	<b>E = Listed as endangered under the California Endangered Species Act. D = Delisted T = Listed as threatened under the California Endangered Species Act</b>
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## Appendix G. NOP Comments

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**CALIFORNIA STATE LANDS COMMISSION**  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202



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Contact Phone: (916) 574-1890  
Contact FAX: (916) 574-1885

December 7, 2015

File Ref: SCH # 2015112010

Cabe Cornelius  
California Department of Transportation, District 2  
1657 Riverside Drive  
Redding, CA 96001

**Subject: Notice of Preparation (NOP) for an Environmental Impact Report (EIR)  
for the Klamath River Bridge Replacement Project over the Klamath  
River, Siskiyou County**

Dear Mr. Cornelius:

The California State Lands Commission (CSLC) staff has reviewed the subject NOP for an EIR for the Klamath River Bridge Replacement Project (Project) over the Klamath River, which is being prepared by the California Department of Transportation (Caltrans). Caltrans, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses.

#### **CSLC Jurisdiction and Public Trust Lands**

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c), 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal

waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

The Klamath River at the Project location may include State-owned sovereign land; however, the extent of the State's sovereign interest, at the Project location, has not been determined. Therefore, a lease from the CSLC will not be required for the Project. A lease may be required at such time in the future that the exact extent of the State's fee ownership is determined. If you have questions concerning the CSLC's jurisdiction, please contact Ninette Lee (see contact information below).

Please note that the Klamath River, however, may lie in an area that is subject to a public navigation easement. This easement provides that members of the public have the right to navigate and exercise the incidences of navigation in a lawful manner on State waters that are capable of being physically navigated by oar or motor-propelled small craft. Such uses may include, but not be limited to, boating, rafting, sailing, rowing, fishing, fowling, bathing, skiing, and other water-related public uses. The proposed Project must not restrict or impede the easement right of the public.

This determination is without prejudice to any future assertion of State ownership or public rights, should circumstances change, or should additional information come to our attention. This letter is not intended, nor should it be construed as, a waiver or limitation of any right, title, or interest of the State of California in any lands under its jurisdiction.

Promotion of public access to and use of California's navigable waters is a mandate of the California Constitution (Article 10, Section 4), a condition of statehood in the Act of Admission (Vol. 9, Statutes at Large, page 452), and a responsibility of all public agencies pursuant to the Public Trust Doctrine. In this case, the Legislature has provided a process for Caltrans to follow pursuant to California Streets and Highways Code (§ 84.5), regarding promotion of public access for bridge construction projects. During the design hearing process for the Project, Caltrans is required to fully consider, and prepare a report on, the feasibility of providing public access to the waterway for recreational purposes and determine whether such public access will be provided.

CSLC staff requests that Caltrans consult with us on preparation of the EIR as provided by Public Resources Code section 21153, subdivision (a), and the State CEQA Guidelines section 15086, subdivision (a)(2).

### **Project Description**

Caltrans, in cooperation with the Federal Highway Administration, proposes to construct a new road crossing on State Route (SR) 263 in Siskiyou County over the Klamath River, approximately seven miles north of the town of Yreka (see Exhibits 1 and 2). The existing Klamath River Bridge is a minor arterial two-lane highway in rugged mountainous terrain. The bridge was constructed in 1931 and is an eligible resource with the National Register.

The Project meets Caltrans' objectives and needs as follows.

- The Project would provide a road crossing that meets modern highway design standards and accommodates inter-regional transportation needs.
- The existing bridge has exceeded its expected service life.
- The existing bridge exhibits signs of significant structural fatigue, does not meet modern seismic standards, does not have standard shoulder width, and has an inadequate turning radii where it intersects SR 96.
- The Project would provide reliable long-term access for SR 263 for area businesses and residences, and as a connector between Yreka and SR 96.

From the NOP, CSLC staff understands that the Project would include two Action Alternatives and one No Project Alternative, described as follows:

- Alternative 1: (Preferred Alternative): Build New Bridge and Remove Existing Bridge.
  - Construction of a new bridge on a new alignment and removal of the existing Klamath River Bridge;
  - Constructed as an arch bridge with slab superstructure across the Klamath River; and
  - Significant adverse effects including removal of a National Register eligible resource through removal of the existing bridge.
- Alternative 2: Rehabilitate Existing Bridge. Although identified as an alternative of the Project in the NOP, the description of this alternative explains that it is not feasible and does not meet the purpose and need of the Project. The description explains that construction and future maintenance costs make this alternative unreasonable. It is unclear from the NOP if this alternative will be eliminated from further consideration.

### Environmental Review

CSLC staff requests that Caltrans consider the following comments when preparing the EIR.

#### Recreation

1. Public Access: The EIR should include a section describing the potential for the Project to affect recreational uses and public access to the subject waterway, particularly in light of the Project's construction schedule. The EIR should discuss the recreational uses and access points in the Project vicinity, whether and to what extent these uses would be facilitated or disrupted by the Project, and what, if any, measures could be implemented to reduce any potential negative impacts. This discussion should also identify any safety measures Caltrans will put in place to ensure public safety for recreational activities. Measures could include a public notice and Project area signage provided in advance of the Project, notifying the public of any disruptions or creation of alternate access points or use areas.

Pursuant to California Streets and Highways Code (§ 84.5), during the design hearing process, full consideration of, and a report on, the feasibility of providing

public access to the subject waterway is required to be provided. The report should consider the following.

- An assessment of public access needs at the Project location, in addition to a benefit analysis of public access alternatives, not alternatives to access;
- A description of existing public access points and facilities in the Project vicinity, including the existing condition of these resources and entity responsible for maintenance;
- An assessment of existing constraints and hazards that could make on-site public access infeasible;
- A feasibility assessment of proposed on-site public access infrastructure, such as construction of trails, stairs, parking areas, trash cans, restrooms, etc;
- A feasibility assessment of alternatives, if on-site public access is infeasible, such as improving existing public access in the Project vicinity or creating new public access points that could provide a means to access the subject waterway within the project vicinity;
- Environmental impacts of providing public access; and
- A conclusion on the feasibility of providing public access.

If the report determines that public access is feasible, the EIR must reflect how public access improvements will be incorporated into the Project and identify any associated environmental impacts. Planning for preparation of the report should occur during the earliest stages of Project planning, and the report should be used to support the environmental impact analysis of the EIR.

Thank you for the opportunity to comment on the NOP for the EIR. As a trustee agency, CSLC staff requests that you consult with us on this Project and keep us advised of changes to the Project description and all other important developments. Please send additional information on the Project to the CSLC staff listed below as the EIR is being prepared.

Please refer questions concerning environmental review to Jason Ramos, Senior Environmental Scientist, at (916) 574-1814 or via e-mail at [jason.ramos@slc.ca.gov](mailto:jason.ramos@slc.ca.gov). Please contact Ninette Lee, CSLC Public Land Manager, at (916) 574-1869 or by email at [Ninette.Lee@slc.ca.gov](mailto:Ninette.Lee@slc.ca.gov) for information regarding the Commission's jurisdiction or leasing requirements.

Sincerely,



Cy R. Oggins, Chief  
Division of Environmental Planning  
and Management

cc: Office of Planning and Research  
J. Ramos, CSLC  
N. Lee, CSLC

**DEPARTMENT OF TRANSPORTATION**

1657 RIVERSIDE DRIVE  
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May 26, 2016

Mr. Jason Ramos, Senior Environmental Scientist  
California State Lands Commission  
Division of Environmental Planning  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

02-2E480  
SIS-263-PM 57.1  
Klamath River Bridge

Dear Mr. Ramos:

Subject: Notice of Preparation (SCH No. 2015112010)

Thank you for your letter dated December 7, 2015, regarding the California Department of Transportation's (Caltrans) issuance of a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the above referenced bridge replacement project on State Route 263 in Siskiyou County. Your letter provides information regarding the California State Lands Commission's (CSLC) jurisdiction and role as a Trustee Agency under the California Environmental Quality Act (CEQA).

Your letter indicates that CSLC is unclear, based on information contained in the NOP, whether Alternative 2 (Rehabilitate Existing Bridge) will be eliminated from further consideration. Bridge rehabilitation remains a valid project alternative and cannot be ruled out until all information and studies are considered. Relative to the project's purpose and need, a bridge rehabilitation strategy would not address the skewed intersection at the junction of State Route 96 nor would it include widening of the bridge deck to provide standard shoulder width, therefore, the rehabilitation alternative may not attain all of the project's objectives. The bridge rehabilitation alternative under consideration would include strengthening and repair of the existing reinforced concrete structure to address the basic deficiencies related to the deterioration of concrete and reinforcing steel, and seismic stability issues.

The letter also requests that Caltrans consider comments relative to public recreational access to the river, including compliance with California Streets and Highways Code Section 84.5. The draft EIR will have a section that addresses recreation. Caltrans will assess the potential for permanent and temporary construction related impacts to recreational activities in the project vicinity. Caltrans will ensure that adequate notice regarding bridge construction activities and potential river closures or detours is publicized and ensure that safety measures are in place during construction to accommodate those that use the river.

Pursuant to California Streets and Highways Code Section 84.5, the Caltrans project development team (PDT) has examined the feasibility of incorporating a river access point for public recreation at or near the proposed new bridge site. Due to the steepness of terrain and lack

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to enhance California's economy and livability"*

Mr. Jason Ramos  
May 26, 2016  
Page 2

of strategically located public lands at this location, creation of a public recreation access is deemed not feasible with the current project. Additionally, the PDT has identified existing public recreational river access points upstream and downstream of the proposed bridge replacement project. One public access point is located approximately 2.2 miles upstream just north of the Collier Safety Roadside Rest Area on the east side of Interstate 5. Another public access point is located approximately 0.8 mile downstream (west) of the existing bridge on State Route 96. Both locations are accessible by vehicles and can accommodate parking and small boat launching.

Based on preliminary design information, Caltrans has obtained concurrence from the National Park Service indicating that the proposed project would not result in an adverse effect upon the recreational attributes of the Klamath River relative to its National Wild and Scenic status.

I hope this letter addresses your questions and concerns. We appreciate your input and the opportunity to work with you during the project planning phase. Your contact information has been added to the project mailing list for the draft EIR. If you have any questions or information regarding the proposed project, you may contact me at (530) 225-3174.

Sincerely,



Chris Quiney, Branch Chief  
North Region Office of Environmental Management – R1 Branch

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to enhance California's economy and livability"*