

# **PULGA PROFILE CHANGE PROJECT**

**BUTTE COUNTY, CALIFORNIA  
DISTRICT 3 – BUT – 70 (Post Miles 46 to 47)  
EA: 03-3H540 / 0318000012**

## **INITIAL STUDY**

**With Proposed Mitigated Negative Declaration**



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



**July 2020**



## General Information about this Document

### What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Butte County in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each alternative, and proposed avoidance, minimization, and/or mitigation measures.

### What should you do?

- Please read this document.
- Additional copies of the document and the related technical studies are available for review at the Caltrans District Office at 703 B Street Marysville, CA 95901. Or at the Oroville Branch Library at 1820 Mitchell Avenue, Oroville CA 95966.
- The document can be viewed digitally via Caltrans weblink:  
  
<https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental/d3-environmental-docs>
- Send comments via postal mail to:
- California Department of Transportation Attn:
- David Gould, Associate Environmental Planner, California Department of Transportation, 703 B Street, Marysville, CA, 95901.
- Submit comments via email to: [David.Gould@dot.ca.gov](mailto:David.Gould@dot.ca.gov)
- Submit comments by the deadline: August 22, 2020

### What happens after this?

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

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: David Gould, North Region Environmental-District 3, 703 B Street, Marysville, CA 95901; 530-741-4583 Voice, or use the California Relay Service TTY number, 711 or 1-800-735-2929.



## **PULGA PROFILE CHANGE PROJECT**

Raise existing roadway profile approximately 5 feet.  
On State Highway Route 70 in Butte County between post miles 46.0 and 47.0.

### **INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION**

**INITIAL STUDY with Proposed Mitigated Negative Declaration**

Submitted Pursuant to: Division 3, California Public Resources Code

(Federal) 42 USC 4332(2)(C)

49 USC 303, and/or 23 USC 138]

THE STATE OF CALIFORNIA

Department of Transportation

7/21/20  
Date of Approval

Julia K. Green  
Julia K. Green, Office Chief (South)  
North Region Environmental-District 3  
California Department of Transportation  
CEQA Lead Agency

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

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# **Proposed Mitigated Negative Declaration**

**Pursuant to: Division 13, California Public Resources Code**

SCH Number: Pending

## **Project Description**

Caltrans proposes to improve a damaged section of roadway on State Route (SR) 70 in Butte County between post mile (PM) 46.0 and 47.0 by raising the existing roadway profile approximately 5 feet, replacing the Bear Creek Bridge (No. 12-0039) at PM 46.40, protecting the embankment with Rock Slope Protection (RSP), and placing an earth retaining structure against future flood damage.

## **Determination**

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

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

The project would have no effect on air quality, energy, geology/soils, hydrology water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation, tribal cultural resources, utilities/service system, and wildfire.

The project would have less than significant impacts regarding aesthetics, greenhouse gas emissions, and hazards and hazardous materials.

With the following mitigation measures incorporated, the proposed project would have less than significant effects to wetland and other waters, biological resources, and cultural resources because the following mitigation measures would reduce potential effects to less than significant.

### **Wetlands and Other Waters**

- Purchase of mitigation bank credits or offsite permittee responsible mitigation

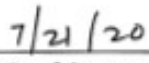
## Threatened and Endangered Animals

- The project proposes to rehabilitate approximately 0.04 acres of creek channel and bank at Bear Ranch Creek after the existing bridge is replaced with a 50' ft. single span bridge.
- An Incidental Take Permit will be required for Foothill Yellow-Legged Frogs.

## Cultural Resources

- Caltrans will consult with the USFS and SHPO to arrive at a consensus on aesthetic applications to apply during construction.
- Caltrans will document and record the affected section of the Feather River Highway Historic District (FRHHD).
- Caltrans is proposing to produce a short film documenting the evolution of the Feather River Canyon.

  
Julia K. Green, Office Chief (South)  
North Region Environmental-District 3  
California Department of Transportation

  
Date of Approval

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# List of Abbreviated Terms

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<b>Abbreviation</b>	<b>Description</b>
AB	Assembly Bill
ADA	Americans with Disabilities Act
ARB	Air Resources Board
BAU	Business as Usual
BMPs	Best Management Practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CRHR	California Register of Historical Resources
CTP	California Transportation Plan
CWA	Clean Water Act
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
EPACT92	Energy Policy Act of 1992
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GHG	greenhouse gas
H <sub>2</sub> S	hydrogen sulfide
HFC-23	fluoroform
HFC-134a	s,s,s,2-tetrafluoroethane
HFC-152a	difluoroethane
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
LCFS	low carbon fuel standard

LSAA	Lake or Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendent
MMTC02e	million metric tons of carbon dioxide equivalent
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MS4s	Municipal Separate Storm Sewer Systems
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
ND	Negative Declaration
NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
O <sub>3</sub>	ozone
OHWM	Ordinary High Water Mark
OPR	Office of Planning and Research
OSTP	Office of Science and Technology Policy
Pb	lead
PCBR	Pacific Coast Bike Route
PDT	Project Development Team
PM	particulate matter
PM <sub>2.5</sub>	particles of 2.5 micrometers and smaller
PM <sub>10</sub>	particles of 10 micrometers or smaller
PM	post mile
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
PRC	Public Resources Code
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCS	Sustainable Communities Strategy
SDC	Seismic Design Criteria
SF <sub>6</sub>	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SLR	Sea Level Rise
SMARA	Surface Mining and Reclamation Act of 1975
SO <sub>2</sub>	sulfur dioxide
SWMP	Storm Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TMDLs	Total Maximum Daily Loads
TMP	Traffic Management Plan
TPZ	Timber Production Zones
U.S. or US	United States
U.S. 101	U.S. (United States) Highway 101
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
U.S. EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle Miles Traveled
WDRs	Waste Discharge Requirements
WQOs	Water Quality Objectives

# Chapter 1. Proposed Project

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## 1.1. Introduction

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

The proposed project is located on SR 70 in Butte County between PM 46.0 to 47.0. Within the project area, SR 70 is an undivided two-lane conventional scenic highway that runs South-North and also part of the Feather River Highway Historic District. (See Figure 1. Project Location). SR 70 runs adjacent to the North Fork of the Feather River (NFFR). Annual winter storms have raised water of the NFFR which has repeatedly flooded the highway in this area with the most recent flooding event in 2017. Flooding of SR 70 has eroded the embankment and damage to the roadway. Flooding of the roadway and emergency repairs has led to long traffic delays and detours requiring commuters to backtrack almost 30 to 80 miles depending on direction. Sometimes, flooding has even trapped motorists between closures and flooding events. Continuous attempts to restore the roadway following flooding events and subsequent emergency repairs have led to the conclusion that raising the existing roadway profile 5 feet will provide the facility with resilience from future recurring flood events. This project is included in the 2019 Federal Transportation Improvement Program for Butte County.

## 2.1 Project Description

Caltrans proposes to improve a damaged section of roadway on State Route (SR) 70 in Butte County between post mile (PM) 46.0 and 47.0 (See Figure 2. Vicinity Map) by raising the existing roadway profile approximately 5 feet, replacing the Bear Creek Bridge (No. 12-0039) at PM 46.40, protecting the embankment with Rock Slope Protection (RSP), and placing an earth retaining structure against future flood damage. The proposed project occurs on the east bank North Fork Feather River (East Branch) within the Feather River Canyon in eastern Butte County approximately 4.3 miles northeast of the town of Pulga and 25 miles northeast of Oroville.

### *Purpose and Need*

The purpose of this project is to restore the roadway, reduce the occurrence of flooding and protect roadway against future flood damage.

The project is needed because this existing highway floods during high river flows causing erosion to the embankment and undercutting of the roadway. Additionally, flooding in this section leads to long term closures of the road resulting in long traffic delays and detours.

## ***Alternatives***

One build and no build alternative are being considered which are listed:

### ***Build Alternative - 12-foot lanes, 8-foot shoulders with slab barrier (Alternative 2)***

This alternative proposes to raise the existing roadbed by approximately 5 ft. The new roadway will be 0.8-mile-long with standard 12-ft lanes and standard 8-ft shoulders. The existing bridge over Bear Ranch Creek will be replaced with either a 50-ft span cast-in-place prestressed concrete slab or precast prestressed concrete slab bridge. The new bridge will be constructed on either spread footings or cast-in-drilled-holes piles. The soldier pile wall will be founded on steel piles in drilled holes and will be constructed on the westbound side to minimize grading into the river bank. A concrete barrier type 80 will be installed on a concrete slab that will be placed on the top of the soldier pile wall. On the eastbound side the hinge point will be reduced from 3 ft to 0 ft in a cut section to minimize the impacts to the steep rock hillside.

Thirteen existing drainage culverts within the project limits will also be replaced, with a new culvert being installed at post mile 46.26.

Nine existing drainage inlets will be replaced, and 12 additional inlets will be installed. There are three existing headwalls, two will be removed and replaced with drainage inlets and one will be constructed in a new location.

The estimated construction cost for Alternative 2 is \$30,151,500 and will take approximately 300 working days.

### ***No Build Alternative***

This alternative would not meet the purpose and need of this project as it would not address flooding due to high river flows, which result in erosion to the embankment and undercutting of the roadway. Flooding in this segment of SR 70 leads to long term closures of the roadway resulting in long traffic delays and detours.

## ***Alternatives Considered but Eliminated from Further Consideration***

### ***Rejected-12-foot lanes, 4-foot shoulders with Midwest Guardrail System (Alternative 1)***

This alternative proposed to raise the existing roadbed by approximately 5 ft. The new roadway will be 0.8-mile-long with standard 12-ft lanes and 4-ft shoulders. The existing bridge over Bear Ranch Creek will be replaced with either a 50-ft span cast-in-place prestressed concrete slab or precast prestressed concrete slab bridge. The new bridge will be constructed on either spread footings or cast-in-drilled-holes piles. The soldier pile wall will be founded on steel piles in drilled holes and will be constructed on the westbound side to minimize grading into the river bank. A Midwest Guardrail System (MGS) will be constructed at the edge of pavement and it will be offset 4-ft from the proposed soldier pile wall. A cable railing will be installed on top of the soldier pile wall.



Thirteen existing drainage culverts within the project limits will also be replaced, with a new culvert being installed at post mile 46.26.

Nine existing drainage inlets will be replaced, and 12 additional inlets will be installed. There are three existing headwalls, two will be removed and replaced with drainage inlets and one will be constructed in a new location.

The estimated construction cost for Alternative 1 is \$26,539,700.

This alternative was eliminated from further consideration because of constructability issues due to the limited space required for construction. The proposed 4-foot shoulder does not provide enough space necessary to construct the retaining wall, elevate the roadway, and allow for one-way reversing traffic through the construction zone without impacting the NFFR. The lack of room is also a safety concern for both the traveling public and construction personnel.

#### **Rejected- 12-foot lanes, 8-foot shoulder with MGS (Alternative 3)**

This alternative proposes to raise the existing roadbed by approximately 5 ft. The new roadway will be 0.8-mile-long with standard 12-ft lanes and standard 8-ft shoulders. The existing bridge over Bear Ranch Creek will be replaced with either a 50-ft span cast-in-place prestressed concrete slab or precast prestressed concrete slab bridge. The new bridge will be constructed on either spread footings or cast-in-drilled-holes piles. The soldier pile wall will be founded on steel piles in drilled holes and will be constructed on the westbound side to minimize grading into the river bank. A MGS will be constructed at the edge of pavement and it will be offset 4-ft from the proposed soldier pile wall. A cable railing will be installed on top of the soldier pile wall. A 1-ft deep ditch and a standard 3-ft hinge point are proposed on the eastbound side.

Thirteen existing drainage culverts within the project limits will also be replaced, with a new culvert being installed.

Nine existing drainage inlets will be replaced, and 12 additional inlets will be installed. There are three existing headwalls, two will be removed and replaced with drainage inlets and one will be constructed in a new location.

The estimated construction cost for Alternative 3 is \$28,806,000.

This alternative was eliminated from further consideration because construction would require additional rock excavation activities. Rock excavation would affect endangered plant and wildlife species present within the project limits, which would require long-term mitigation. In addition, rock excavation has the potential to affect cultural resources located up hill.

***Rejected – Viaduct (Alternative 4)***

This alternative proposes to built a new 0.6 mile long viaduct from PM 46.2 to the Shady Rest Area, at PM 46.8. The viaduct would follow the existing alignment of SR 70 with a maximum offset of 4 feet from centerline. The proposed viaduct will have standard 12 feet travel lanes with 8 foot shoulders.

The estimated construction cost for Alternative 4 is \$115,000,000.

This alternative was eliminated from further consideration during the project early initiation phase. The surrounding topography would make it difficult to design an adequate structure without unavoiadle significant impacts to the NFFR, threatened plant and animals species, and cultural resources, and substantially increasing construction time. Additionally, this alternative would have required an extended schedule to conduct a Value Analysis Study, required for any project with a construction estimate over \$25 million.

Figure 1. Location Map

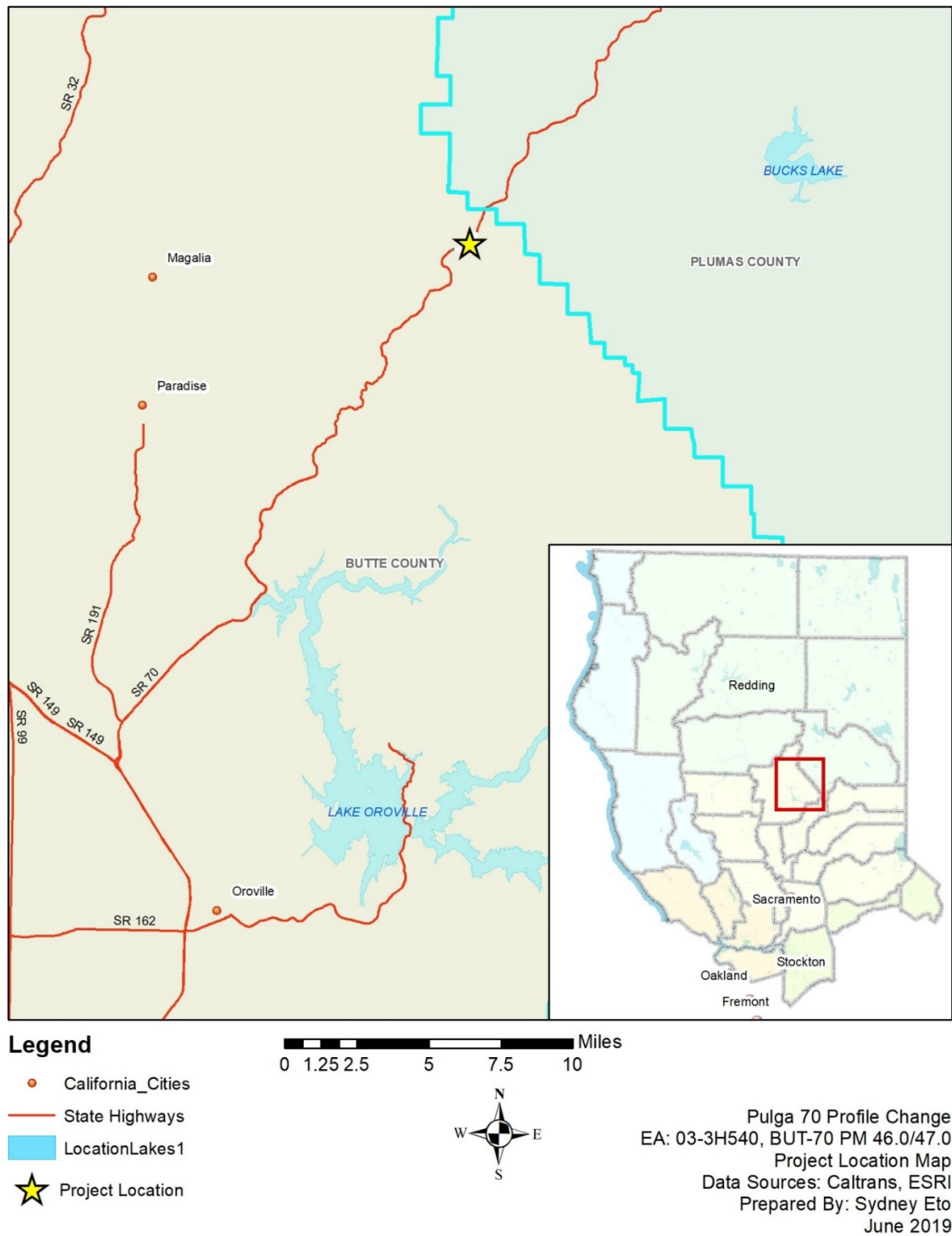
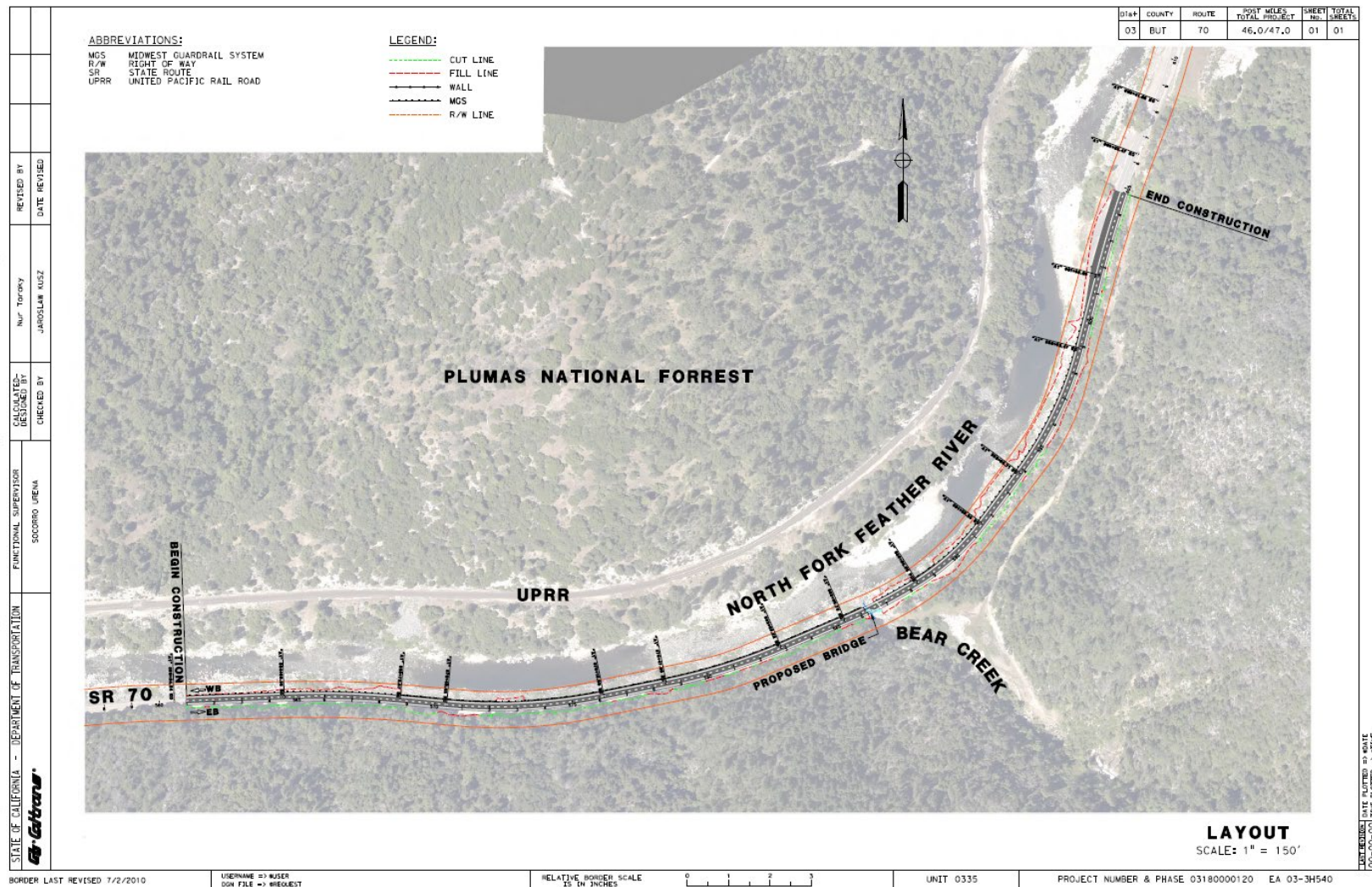


Figure 2. Vicinity Map



## 2.2 Permits and Approvals Needed

The proposed project would require the following permits, licenses, agreements, and certifications:

**Table 1. Agency Approvals**

Agency	Permit/Approval	Status
California Department of Fish and Wildlife (CDFW)	2081 Incidental Take Permit	Pending
Regional Water Quality Control Board (RWQCB)	401 from Central Valley	Pending
U.S. Army Corps of Engineers (USACE)	Section 404 Nationwide Permit	Pending
Department of Interior	Individual Section 4(f)	Pending
State Historic Preservation Offices (SHPO)	Section 106	Pending

For projects that have federal funds involved, Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits the Federal Transit Administration and other USDOT agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and water fowl refuges, or public and private historic properties, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use. This project has federal funds and would require the permanent use of a Section 4(f) resource. Draft Individual Section 4(f) will be circulated as a separate document.



## **1.2. Standard Measures and Best Management Practices Included in All Alternatives**

### ***Utilities and Emergency Services***

**UE-1:** All emergency response agencies in the project area would be notified of the project construction schedule and would have access to SR 70 throughout the construction period.

**UE-2:** Caltrans would coordinate with the utility providers before relocation of any utilities to ensure potentially affected utility customers would be notified of potential service disruptions before relocations.

### ***Traffic and Transportation***

**TT-1:** Pedestrian and bicycle access would be maintained during construction.

**TT-2:** The Contractor would be required to reduce any access delays to driveways or public roadways within or near the work zones.

**TT-3:** A Traffic Management Plan (TMP) would be applied to project.

### ***Visual Aesthetics***

**VA-1:** Aesthetic treatment to the bridge and retaining wall would be included to address context sensitivity.

**VA-2:** Riparian areas impacted by construction would be replanted with regionally appropriate native plants.

**VA-3:** Any temporary access roads would be restored to a natural contour and revegetated with appropriate native plants. Plant species and locations would be developed by the project landscape architect and biologist.

**VA-4:** Alterations to the existing contours of any temporary construction staging areas created by the contractor would be graded to previous conditions and revegetated with appropriate native plants.

### ***Cultural Resources***

**CR-1:** 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 in consultation with the State Historic Preservation Officer.

**CR-2:** If human remains were discovered, State Health and Safety Code § 7050.5 states that further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) § 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission (NAHC) who would then notify the Most Likely Descendent (MLD).

At this time, the person who discovered the remains would contact the Environmental Senior and Professionally Qualified Staff, so they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC § 5097.98 would be followed as applicable.

### ***Hydrology and Floodplain***

**HF-1:** Bridge soffit elevation would not be lower than the existing bridge to maintain the same freeboard provided and not alter hydrology.

**HF-2:** Existing bridge pilings would be removed, which would provide less resistance and blockage of water moving downstream in a flood event.

### ***Water Quality and Stormwater Runoff***

**WQ-1:** The project would comply with the Provisions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Order 2012-0011-DWQ), which became effective July 1, 2013, and the Construction General Permit (Order 2009-0009-DWQ).

Before any ground-disturbing activities, the contractor would prepare a Stormwater Pollution Prevention Plan (SWPPP) (per the Construction General Permit Order 2009-0009-DWQ) that includes erosion control measures and construction waste containment measures so that waters of the State are protected during and after project construction.

The SWPPP would identify the sources of pollutants that may affect the quality of stormwater; include construction site Best Management Practices (BMPs) to control sedimentation, erosion, and potential chemical pollutants; provide for construction materials management; include non-stormwater BMPs; and include routine inspections and a monitoring and reporting plan. All construction site BMPs would follow the latest edition of the *Storm Water Quality Handbooks: Construction Site BMPs Manual* to control and reduce the impacts of construction-related activities, materials, and pollutants on the watershed.

The project SWPPP would be continuously updated to adapt to changing site conditions during the construction phase.

Construction would likely require the following temporary construction site BMPs:

- Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.
- Water would be removed by means of dewatering the individual pipe piles or cofferdams.
- Water generated from the dewatering operations would be trucked off-site to an appropriate facility or treated and used on-site for dust control and/or discharged to an infiltration basin or used to irrigate agricultural lands.
- Fiber rolls or silt fences would be installed.
- Existing vegetated areas would be maintained to the maximum extent practicable.
- Clearing, grubbing, and excavation would be limited to specific locations, as delineated on the plans, to maximize the preservation of existing vegetation.
- Vegetation reestablishment or other stabilization measures would be implemented on disturbed soil areas, per the Erosion Control Plan.
- Soil disturbing work would be limited during the rainy season.

**WQ-2:** The project would incorporate pollution prevention and design measures consistent with the 2003 Caltrans Storm Water Management Plan to meet Water Quality Objectives (WQOs). This plan complies with the requirements of the Caltrans Statewide NPDES Permit (Order 2012-0011-DWQ).

The project design would likely include the following permanent stormwater treatment BMPs:

- Vegetated surfaces would feature native plants and revegetation would use the seed mixture, mulch, tackifier, and fertilizer recommended in the Erosion Control Plan prepared for the project.
- Existing roadway and bridge drainage systems discharge stormwater to receiving waters through bridge deck drains and/or discharge to vegetated slopes adjacent to the highway facility. The current design for stormwater management, post construction, is to perpetuate existing drainage patterns. Stormwater will continue to sheet flow to vegetated slopes providing stormwater treatment in accordance with Caltrans NPDES Permit.

### ***Hazardous Waste and Material***

**HW-1:** Per Caltrans requirements, the contractor(s) would prepare a project-specific Lead Compliance Plan (CCR Title 8, § 1532.1, the “Lead in Construction” standard) to reduce worker exposure to lead-impacted soil. The plan would include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for handling lead-impacted soil.



**HW-2:** Low levels of aerially deposited lead from the historic use of leaded gasoline exist along roadways throughout California. The project would adhere to Caltrans' Standard Special Provision Section 7-1.02K(6)(i)(iii) "Earth Material Containing Lead."

**HW-3:** Thermoplastic paint may contain lead of varying concentrations depending upon color, type, and year of manufacturer. Traffic stripes would be removed and disposed of in accordance with Caltrans' Standard Special Provision Section 36-4 "Residue Containing Lead from Paint and Thermoplastic."

**HW-4:** Treated wood waste comes from old wood treated with chemical preservatives to prevent fungal decay and insect attacks. Potential sources of treated wood waste within the project area are sign posts and guardrail. If treated wood waste is generated during this project, it would be disposed of in accordance with Standard Special Provision 14-11.14 "Treated Wood Waste."

### *Geology and Seismic/Topography*

**GS-1:** The project would be designed to minimize slope failure, settlement, and erosion using recommended construction techniques and BMPS. New slopes should be revegetated to reduce erosion potential.

**GS-2: Temporary** construction site BMPs including fiber rolls, silt fences, temporary gravel berms, stabilized entrances/exits to construction areas, temporary cover for stockpiles, streambed stabilization, and street sweeping would be implemented as necessary to reduce the amount of erosion and topsoil loss. In addition to temporary BMPs. Permanent BMPs would be implemented to final slopes and disturbed areas. Erosion control fabric or netting and hydroseed would be used to stabilize newly graded slopes. Climate appropriate landscaping that reduces runoff and promotes surface infiltration would be planted prior to completion of construction.

**GS-3:** In the unlikely event that fossils are encountered during project excavations, Caltrans Standard Specification 14-7 would be followed. This standard specification states that if unanticipated paleontological resources were discovered at the job site, all work within 60 feet would stop, the area around the fossil would be protected, and the Resident Engineer would be notified.

### *Other Waters*

**WW-1:** The contractor would be required to place temporary barrier fencing along the boundaries of all riparian, or other environmentally sensitive areas adjacent to the project footprint.

**WW-2:** Impacts to waters and riparian vegetation would be reduced with incorporation of the measures identified in Biological Resource Section.

**WW-3:** Caltrans would be required to restore riparian areas temporarily impacted by construction to pre-existing conditions prior to completion of construction.

### ***Plant Species***

**PS-1:** After all construction materials are removed, the project area would be revegetated. Replanting would be subject to a plant establishment period as defined by project permits, which would require Caltrans to adequately water plants, replace unsuitable plants, and control pests.

**PS-2:** The contractor would be required to place temporary barrier fencing along the boundaries of all riparian, or other environmentally sensitive areas to avoid impacts to sensitive habitats that occur adjacent to the project footprint.

### ***Invasive Species***

The standard measures described in PS-1 for restoring the project site post construction are also appropriate for the control of invasive species.

**IPS-1:** After all construction materials are removed, the project area would be restored to a natural setting by grading, placing erosion control, and replanting. Replanting would be subject to a plant establishment period as defined by project permits, which would require Caltrans to adequately water plants, replace unsuitable plants, and control pests.

## **1.3. Discussion of the NEPA Categorical Exclusion**

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, will be prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the United States National Marine Fisheries Service and the United States Fish and Wildlife Service—species protected by the Federal Endangered Species Act).

## Chapter 2. CEQA Environmental Checklist

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### Environmental Factors Potentially Affected

The environmental factors noted below would be potentially affected by this project. Please see the CEQA checklist on the following pages for additional information.

Potential Impact Area	Impacted: Yes / No
<b>Aesthetics</b>	Yes
Agriculture and Forestry	No
Air Quality	No
<b>Biological Resources</b>	Yes
<b>Cultural Resources</b>	Yes
Energy	No
Geology/Soils	No
<b>Greenhouse Gas Emissions</b>	Yes
<b>Hazards and Hazardous Materials</b>	Yes
<b>Hydrology/Water Quality</b>	Yes
Land Use/Planning	No
Mineral Resources	No
Noise	No
Population/Housing	No
Public Services	No
Recreation	No
Transportation/Traffic	No
Tribal Cultural Resources	No
Utilities/Service Systems	No
Wildfire	No
<b>Mandatory Findings of Significance</b>	Yes

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Often, background studies performed with the project will indicate there are no impacts to a particular resource. A NO IMPACT answer in the last column of the checklist reflects this determination. The words “significant” and “significance” used throughout the checklist and this document are only related to potential impacts pursuant to CEQA. The questions in the CEQA

Checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standard measures applied to all or most Caltrans projects, such as Best Management Practices (BMPs) and measures in the Standard Plans and Specifications or as Standard Special Provisions, are considered an integral part of the project and have been considered prior to any significance determinations documented in the checklist or document.

## 2.1 Aesthetics

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> a) Have a substantial adverse effect on a scenic vista?	No	No	Yes	No
<b>Would the project:</b> b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No	No	Yes	No
<b>Would the project:</b> c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No	No	Yes	No
<b>Would the project:</b> d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No	No	No	Yes

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action 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]).

The “Less Than Significant Impact” and “No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and the Visual Impact Assessment (VIA) dated February 28, 2020.

### ***Regulatory Setting***

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]).

### ***Environmental Setting***

The proposed project is located on State Route 70 Between post mile 46.0 and 47.0 in Butte County, California. The project is located adjacent to NFFR in Pulga, California. The landscape is characterized by rolling to mountain terrain. The land use within the corridor or project corridor is primarily residential, agricultural and recreational but also includes areas of open space and national forest. The project corridor is defined as the area of land visible from, adjacent to, and outside the highway right-of-way, and is determined by topography, vegetation, and viewing distance.

The existing facility is designated as Rural Arterial. Within the project limits, SR 70 is an undivided two-lane conventional highway.

### ***Discussion of Environmental Evaluation Question 2.1—Aesthetics***

- a) Within the project vicinity, scenic vistas are available within the project limits. The proposed soldier pile wall, Midwest Guardrail System, and concrete barrier will moderately alter the scenic quality of the project location. Users will notice a change in view shed but the height and size of the elements will not dominate the existing views. As a result, the project will not have a substantial adverse effect on the scenic vista. Therefore, this impact would be less than significant.
- b) This portion of SR 70 is not on the state’s Scenic Highway eligible list. However, it is listed on the USFS information site as a scenic byway as there is a unique blend of natural and manmade visual qualities within the project limits and immediate sites, such as, rock walls, river, diverse vegetation, and the historic Arch Rock Tunnel. The Arch Rock Tunnel is located outside the project limits but is within view. Although the proposed soldier pile wall, Midwest Guardrail System or concrete barrier will moderately obscure the views of the scenic resources, the project will not substantially damage scenic resources. Therefore, this impact would be less than significant.
- c) The proposed project will bring noticeable change to the visual quality, but the scale of the elements will have a minimum effect to the existing views. As a result, the project will moderately impact the visual character of the site and its

surroundings but will not substantially degrade it. Therefore, this impact would be less than significant.

- d) The proposed project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area as the proposed design will be treated to reduce and minimize glare. Therefore, there is no impact.

### ***Avoidance and Minimization Efforts***

The following avoidance and minimization measures will be implemented for aesthetics:

- An aesthetic treatment is recommended to stain the guardrail. Staining may reduce the possible glare from the new guardrail and help it blend in with the existing environment.
- For the proposed RSP, all necessary efforts should be made in the selection materials. The colors, type, and shapes of the rocks should blend with the existing environment and maintain the scenic quality.
- The soldier pile walls will be visible from points along the curvilinear roadway and USFS Shady Rest Area. The natural scenic quality of SR 70 corridor should be protected by ensuring that the walls are visually compatible with their natural surroundings through an application of architectural textures, patterns, materials and/or colors.
- At the end of construction, all areas used for staging, access, or other construction activities shall be repaired pursuant to Section 5-1.36 "Property and Facility Preservation."

### ***Mitigation Measures***

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

## 2.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department 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.

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> 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?	No	No	No	Yes
<b>Would the project:</b> b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No	No	No	Yes
<b>Would the project:</b> c) Conflict with existing zoning, 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))?	No	No	No	Yes
<b>Would the project:</b> d) Result in the loss of forest land or conversion of forest land to non-forest use?	No	No	No	Yes
<b>Would the project:</b> 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?	No	No	No	Yes

“No Impact” determination in this section are based on project scope, description, and location of the proposed project, and the California Department of Conservation Farmland Maps, and Natural Resources Conservation Service Soil Survey. Potential impacts to Agriculture and Forest Resources are not anticipated due to:

- a) Land classified as Other Lands and Grazing Lands are located near or adjacent to the proposed project limits on SR 70. However, no temporary or permanent acquisition of land is anticipated for the project as all work will be conducted within Caltrans right-of-way. The proposed project would not convert any land currently used for agriculture to non-agriculture use. Therefore, there is no impact.
- b) There are no parcels under a Williamson Act contract within the project limits. Therefore, there is no impact.
- c) The proposed project does not conflict with forest land, timberland, or timberland zoned Timberland Production was identified within the project limits. Therefore, there is no impact.
- d) The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use as all work would be completed within Caltrans right-of-way. Therefore, there is no impact.
- e) There would be no other changes to farmland or forest land. Therefore, there is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.



## 2.3 Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make these determinations.

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> a) Conflict with or obstruct implementation of the applicable air quality plan?	No	No	No	Yes
<b>Would the project:</b> b) 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?	No	No	No	Yes
<b>Would the project:</b> c) Expose sensitive receptors to substantial pollutant concentrations?	No	No	No	Yes
<b>Would the project:</b> d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and the Air Quality Compliance Memorandum dated December 6, 2019. There would be temporary construction emissions associated with the project. Please see Section 2.7-Greenhouse Gas Emissions for more information.

### *Regulatory Setting*

The Federal Clean Air Act (CAA), as amended, is the primary federal law that governs air quality, while the California Air Act is its corresponding state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), set standards for the concentration of pollutants in the air.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA. In addition to this analysis, a parallel “conformity” requirement under the CAA also applies.

### ***Discussion of Environmental Evaluation Question 2.3—Air Quality***

- a) The proposed project does not conflict with or obstruct implementation of the applicable air quality plan as conformity requirements do not apply. Therefore, there is no impact.
- b) The proposed project would not result in changes to the traffic volume, fleet mix, speed, or any other factor that would cause an increase in emissions relative to the no build alternative. This project would not cause an increase in operation emissions. Therefore, there is no impact.
- c) The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The project was found not to be a “Project of Air Quality Concern”. Therefore, there is no impact.
- d) The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Therefore, there is no impact.

### ***Mitigation Measures***

Based on the determination made in the CEQA Checklist, mitigation measures have not been proposed for the project.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.4 Biological Resources

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	No	Yes	No	No
<b>Would the project:</b> b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No	Yes	No	No
<b>Would the project:</b> c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No	No	No	Yes
<b>Would the project:</b> 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?	No	No	Yes	No
<b>Would the project:</b> e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No	No	No	Yes
<b>Would the project:</b> 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?	No	No	No	Yes

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“Less Than Significant with Mitigation”, “Less Than Significant” and “No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and the Natural Environmental Study dated December 26, 2019.

### ***Regulatory Setting***

Within this section of the document (2.6, Biological Resources), the topics are separated into Natural Communities, Wetlands and Other Waters, Plant Species, Animal Species, and Threatened and Endangered Species. The plant and animal species listed as “threatened” or “endangered” are covered within the Threatened and Endangered sections. Other special-status plant and animal species, including CDFW fully protected species, species of special concern, USFWS and NMFS candidate species, and California Native Plant Society (CNPS) rare and endangered plants are covered in the Plant and Animal sections.

### ***Natural Communities***

CDFW maintains records of sensitive natural communities (SNC) in the California Natural Diversity Database (CNDDB). SNC are those natural communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities might contain special-status taxa or their habitat.

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

#### **FEDERAL**

Waters of the United States (including wetlands) are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly called 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 United States, including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high-water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. Include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for 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 USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies regarding wetlands. Essentially, EO 11990 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. A Wetlands Only Practicable Alternative Finding must be made.

## STATE

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs), and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved.

Sections 1600–1607 of the California Fish and Game Code (CFGF) require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement (LSAA) will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider.

Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

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

### ***Plant Species***

The U.S. Fish and wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special-status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Sections 1900–1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000–21177.

### ***Animal Species***

Many state and federal laws regulate impacts to wildlife. The USFWS, National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service [NMFS]), and 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 Acts. Species listed or proposed for listing as threatened or endangered are discussed in the following section. All other special-status animal species are discussed here,

including CDFW fully protected species and species of special concern, and USFWS or NMFS candidate species.

Federal laws and regulations pertaining to wildlife include:

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

State laws and regulations pertaining to wildlife include:

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

### *Threatened and Endangered Species*

The primary federal law protecting threatened and endangered species is FESA: 16 United States Code (USC) Section 1531, et seq. See also 50 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 Federal Highway Administration (FHWA) (and Caltrans, as assigned), are required to consult with the USFWS and NMFS to ensure 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 2080 of the California 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 California 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 CDFW. For species listed under both FESA and CESA requiring a Biological Opinion



under Section 7 of FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

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

### ***Invasive Species***

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.

### ***Environmental Setting***

A Natural Environmental Study (NES) was prepared in December 26, 2019. Surveys conducted at the project site were done within the environmental study limits (ESL) to identify biological resources that may be affected.

The proposed project is within the Feather River Canyon, in the Plumas National Forest. This portion of the NFFR is between two controlled release dams. Bear Ranch Creek and several small streams that flow into the NFFR along the project area. The southern bank of the NFFR is comprised of riparian vegetation disbursed throughout rock slope protection (RSP). Disturbance outside of Caltrans right of way is minimal due to the seclusion of the area and lack of access to the upslope areas above the granite outcroppings that line the highway.

### ***Natural Communities***

Based on resource database query results, CDFW has not identified any habitats or natural communities of concern within the ESL. However, there are several perennial



and ephemeral waterways within the ESL affected by the proposed project and would require a Lake and Streambed Alteration Agreement, a section 401 certification, and a section 404 Nationwide 14 permit.

#### Arroyo Willow Thicket Habitat (Riparian Habitat)

Arroyo willow thicket habitat is present along the streambank on both the eastern and western sides of the NFFR. This riparian habitat consists of a variety of trees and shrubs including arroyo willow (*Salix lasiolepis*), Himalayan blackberry, white alder (*Alnus rhomnifolia*), mugwort (*Atemisia douglasiana*), and spice bush (*Calycanthus occidentalis*). Approximately 3.56 acre of arroyo willow thicket habitat are present within the ESL along the NFFR.

#### Wetlands and Other Waters

Preliminary jurisdictional waters survey was conducted by qualified Caltrans biologist in June 20, 2018. Caltrans biologists identified potential jurisdictional waters of the United States and Waters of the State within the ESL. Jurisdictional waters identified within the ESL include Bear Ranch Creek, NFFR, and four unnamed streams. Ordinary High-Water Mark was also assessed by observing highest water level by observing natural line impressed on the bank and shelving.

#### Plant Species

The plants listed are considered to be of special concern based on (1) federal, state, or local laws; (2) limited distribution; and/or (3) the presence of habitat required by the special-status occurring on site.

Plant surveys were performed within the ESL and adjacent to the project area by qualified Caltrans biologist. Twenty-six rare and endangered plant species were previously recorded as having the potential to occur within the project site, but only 3 were observed during plant surveys. The 3 plant species observed are Slender silver moss (*Anomobryum julaceum*), Mildred's Clarkia (*Clarkia mildrediae* ssp. *Mildrediae*), and Cantelow's lewisia (*Lewisia cantelovii*).

#### **Slender Silver Moss**

Slender silver moss is found in upland forests, lower montane coniferous forests, and north coast conifer forests across California. This plant does not have federal or state protection status, but it meets the criteria for sensitivity under CEQA.

Several slender silver moss specimens were detected during field surveys and appears to be abundant within the Feather River Canyon. These plants were found attached to granite rock faces in various moist locations along SR 70 within the ESL.

#### **Mildred's Clarkia**

Mildred's Clarkia is an annual herb found in cismontane woodlands and lower montane coniferous forests. It is known to be found from the southernmost Cascade Range and northern Sierra Nevada range along the Feather River. This plant does not have federal or state protection status, but it meets the criteria for sensitivity under CEQA. Ten Mildred's Clarkia were detected during plant surveys on the eastern end of the ESL at approximately PM 46.8 along the north western side of the roadway pullout.

### **Cantelow's Lewisia**

Cantelow's lewisia is a perennial herb found on moderately moist granite cliff faces, rocky outcrops, ravines, and sometimes serpentine seeps within broad-leafed upland forests, chaparral, cismontane woodlands and lower montane coniferous forests. This plant does not have federal or state protection status but meets the criteria for sensitivity under CEQA. During field surveys, Cantelow's lewisia were found attached to the exposed granite rockfaces along the ESL. Cantelow's lewisia was found to be locally abundant in the immediate area adjacent to the project site.

### **Animals Species**

Animals are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distribution; and/or (3) the habitat requirements of special-status animals occurring on site. Special-status animal species present within the ESL are hardhead (*Mylopharodon conocephalus*) and foothill yellow-legged frog (*Rana boylei*).

### **Hardhead**

Hardhead are a widely distributed CDFW species of special concern. They are found in low to mid elevation streams in the Sacramento-San Joaquin drainage. Their range extends from Kern County to Modoc County. Species specific surveys for hardhead were not conducted within the ESL. CDFW and USFS data identified hardhead within the NFFR and is assumed at the junction of Bear Ranch Creek and NFFR.

### **Threatened/Endangered Species**

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

Foothill yellow-legged frog (FYLF) is a species being recommended for listing under CESA as of September 20, 2019 and is currently pending formal listing by the Fish and Game Commission. FYLF are abundant in the NFFR and have been detected regularly in and around the ESL since 2003. Surveys for FYLF were conducted in June 25, 2019 and again in July 11, 2019 for the presence for tadpoles, adult FYLF and potentially suitable habitat.

### **Invasive Species**

Various invasive species including, but not limited to yellow star thistle (*Centaurea solstitialis*), bull thistle (*Cirsium vulgare*), cheatgrass (*Bromus tectorum*), and Himalayan blackberry (*Rubus armeniacus*) were identified during botanical surveys. Project activities are not anticipated to contribute to the increasing number of invasive species beyond what is currently present within the ESL. After construction is completed and all materials are removed, the project area would be restored to a natural setting by grading, placing erosion control, and replanting of native plant species.

### **Discussion of Environmental Evaluation Question 2.4—Biological Resources**

#### **Discussion of CEQA Checklist Question A**

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

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?

### **Plant Species**

Individual populations of Slender Silver Moss, Mildred's Clarkia and Cantelow's Lewisia were observed within and outside the ESL. Areas within the ESL that require excavation will impact individual Slender Silver Moss and Cantelow's Lewisia species. Although these individuals will be affected by project activities, the project would not affect the continued existence of both species as they are abundant throughout the Feather River Canyon. Project activities would not affect the 10 Mildred's Clarkia present within the ESL, but incidental impacts due to construction staging may occur. To ensure that no incidental impacts were to occur to the 10 individual Mildred's Clarkia, temporary fencing will be placed around them.

### **CEQA Conclusion**

Due to the abundance of slender silver moss and Cantelow's Lewisia species within the ESL and throughout the Feather River Canyon, it is unlikely that the project would jeopardize the existence of the two species. The 10 individual Mildred's Clarkia within the ESL are in an area where construction activities would not occur. The individual Mildred's Clarkia are in an area ideal for construction staging has the potential to be impacted. Therefore, this impact would be less than significant.

### **Avoidance and Minimization Efforts**

The following measures would be implemented for slender silver moss, Mildred's Clarkia, and Cantelow's Lewisia:

- Limit excavation to the minimum requirement to complete the project.
- Before the start of project activities, slender silver moss and Cantelow's lewisia specimens will be collected and relocated outside of the ESL.
- Before the start of project activities, the population will be marked as an environmentally sensitive area (ESA) on construction layouts and ESA fencing will be installed to protect it from accidental disturbance.

### **Mitigation Measures**

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for plant species.

### **Animal Species**

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

Proposed project would impact multiple ephemeral and perennial waterways, which would affect FYLF movement between NFFR and adjacent tributaries. It is not anticipated that waterways within the ESL are used for tadpole rearing as the flows are too high and are more ideal as passageways. Waterways impacted include Bear Ranch Creek, NFFR, and 4 unnamed perennial drainages. Impacts would be the result of ground disturbing activities at the existing bridge and culverts that connect the 4 unnamed perennial waterways. Culvert work will include modifications to improve connectivity to area that may not have been previously inaccessible. In addition, the project proposes to rehabilitate approximately 0.044 acre of creek and bank. Rehabilitation would slow waterflow under the highway decreasing turbidity and allowing for species to move upstream earlier in the year. Direct impacts to FYLF would occur if the species were present during ground disturbing activities and dewatering. The proposed project would require an Incidental Take Permit from CDFW.

### **CEQA Conclusion**

The proposed project would result in a less than significant impact with mitigation to Foothill Yellow-Legged Frogs with the avoidance, minimization, and mitigation measures outlined below. Therefore, this impact would be less than significant with mitigation.

### **Avoidance and Minimization Efforts**

The following avoidance and minimization measures would be implemented for FYLF:

- Limit water diversion to the minimum amount of time required to complete work at each location.
- Limit the construction footprint to the minimum area possible to complete the project.
- Construction work windows will be established in potential frog habitat. This period is estimated to be July 1 to August 30 and will be limited to a period before tadpole's morph into subadults, before they disperse into adjacent tributaries and associated habitat. This window is estimated to have the least amount of direct effects FYLF overall and provide the least impedance to species movement throughout the ESL.
- Pre-construction surveys will be performed to determine presence of FYLF.
- An aquatic organism rescue plan will be developed and utilized during dewatering to minimize the effects of dewatering and prevent mortality existing aquatic organisms. This plan will require the capture and relocation of organisms from Bear Ranch Creek to a preselected relocation in the adjacent NFFR.
- Worker awareness training will be performed to educate personnel, explaining protective measures, species identification, life history, habitat requirements during all life stages, and species's protective status. It will also include instruction that if any worker encounters a FYLF within or near the worksite, work shall halt, and biological representative will be informed.
- A qualified biologist will be present during work in potential FYLF habitat and will record all observations and detections of other sensitive species during surveys.
- A habitat restoration plan will be drafted to ensure proper restoration of all temporary impact areas within the ESL.

### Mitigation Measures

Caltrans proposes to use permanent FYLF habitat enhancement as mitigation for the anticipated impacts to FYLF and their habitat. Caltrans has proposed to include these features:

- Recontouring and expanding the existing creek channel at Bear Ranch Creek and NFFR confluence using natural structures to reduce turbidity and slow flows in to the NFFR.
- Revegetation, where necessary, using regionally appropriate vegetation to provide sunning and refuge area for FYLF.
- Reducing the distance between the culverts and RSP to 6-inches or less and concreting the RSP to ensure this enhancement is not washed away or altered

during future storm events. This distance is low enough that FYLF can jump into the culvert and travel upslope without having to cross the highway, improving passage conditions for FYLF. The concreted RSP will ensure the yearly flood events do not degrade the newly established dispersal corridors.

## **Hardhead**

Proposed in-channel work at Bear Ranch Creek and NFFR confluence has the potential to impact hardhead as dewatering could lead to direct mortality. Dewatering could also limit access to suitable habitat as Bear Ranch Creek contains several small pools immediately upstream of the bridge that meet their habitat preference. Impacts to hardhead habitat will be minimal as Caltrans has implemented avoidance and minimizations measures listed below.

### ***Avoidance and Minimization Efforts***

The following avoidance and minimization measures would be implemented for hardhead.

- Limit excavation to the minimum required to complete project.
- Limit the construction footprint to the minimum area possible to complete the project.
- Construction work windows will be established for in water work. This period is estimated to be July 1 to August 30 and will be related to FYFL work windows.
- Pre-construction surveys will be performed to determine presence of hardhead.
- An aquatic organism rescue plan will be developed and utilized during dewatering to minimize the effects of dewatering and prevent mortality of existing aquatic organisms. This plan will require the capture and relocation of organisms from Bear Ranch Creek to a preselected relocation in the adjacent NFFR.
- Worker awareness training will be performed to educate personnel, explaining protective measures, species identification, life history, habitat requirements during all life stages, and species's protective status. It will also include instructions that if any worker encounters a hardhead within or near the worksite, work shall halt, and biological representative will be informed.
- A qualified biologist will be present during in water work and will record all observations and detections of other sensitive species during surveys.

### ***Mitigation Measures***

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for hardhead for this project.

### **CEQA Conclusion**

The proposed project would result in a less than significant impact to hardhead with avoidance and minimization measures outlined below. Therefore, this impact would be less than significant.

### **Discussion of CEQA Checklist Question B**

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

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

### **Arroyo Willow Thicket habitat (Riparian Habitat)**

The project would impact approximately 0.95 acre of arroyo willow thicket habitat by the fill slope along the NFFR. Temporary impacts up to 0.67 acre to arroyo willow thicket habitat will be from installation of the soldier pile wall and related RSP. At Bear Ranch Creek, approximately 0.04 acre of habitat will be temporarily impacted by the enhancement work at this location. As part of enhancement work, the 0.04 acre along Bear Ranch Creek will be revegetated as required using regionally appropriate species.

### **Avoidance and Minimization Efforts**

The following avoidance and minimization measures will be implemented for arroyo willow thicket habitat:

- Install and maintain temporary construction Best Management Practices (BMPs) to minimize the impacts to riparian habitat.
- A dewatering plan will be established, and conditions in the applicable permits will be implemented.
- Construction will be limited to the minimum area necessary to construct the project and excavation will be limited to the minimum required to complete the project.

### **Mitigation Measures**

Compensatory mitigation is proposed for the 0.95 acre of permanent riparian impacts in either off-site Permittee responsible mitigation or the purchase of mitigation credits from a CDFW approved mitigation bank.



### **CEQA Conclusion**

The proposed project would result in less than significant impact with mitigation to arroyo willow thicket habitat with mitigation measures outlined below. Therefore, this impact would be less than significant with mitigation.

### **Discussion of CEQA Question C**

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

- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

### **Wetlands and Other Waters**

The proposed project would have no impact on federally protected wetlands as no wetlands were identified within the ESL. Therefore, there would be no impact.

The project will have minimal impacts to jurisdictional waters based on scope of work. Of the 6 jurisdictional waters identified, the 4 unnamed drainages will have less than 0.001 acre of permanent impact due to culvert modifications for FYLF dispersal. Bear Ranch Creek and NFFR will have 0.057 acre of temporary impacts due to replacing the bridge (No. 12-0039) and associated water diversion. Although the project will have permeant impacts to other waters of the U.S. and State, the impacts are not significant enough to warrant mitigation. Caltrans proposes to rehabilitate approximately 0.04 acre of creek channel and bank at the Bear Ranch Creek after the existing bridge is replaced.

In addition, the project would require permits from the following agencies: United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Central Valley Regional Water Quality Board (CVRWB).

### **Avoidance and Minimization Efforts**

The following avoidance and minimization measures will be implemented for other waters of the U.S and State:

- Install and maintain temporary construction BMPs to minimize the impacts to water quality. Contractors will also prepare a Storm Water Pollution Prevention Plan (SWPPP) to establish temporary pollution control measures.
- A dewatering plan will be established and conditions set forth in the applicable permits will be implemented.
- Install fencing to protect sensitive biological resources.



- Retain a qualified biologist to conduct monitoring during construction in sensitive habitats.
- Protect water quality to minimize sedimentation in and sediment-laden runoff to wetlands and other waters.
- Limit ground disturbance to the minimum required to complete project.
- Limit the construction footprint to the minimum area possible to complete the project.

### **Mitigation Measures**

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for wetlands and other waters of the U.S. and State for this project.

### **CEQA Conclusion**

The proposed project would result in less than significant impact to Other Waters of the U.S. and State with avoidance and minimization measures listed below. Therefore, this impact would be less than significant.

### **Discussion of CEQA Question D**

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

- Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

### **Foothill Yellow Legged Frog**

Please reference section 2.4 “Discussion of Environmental Evaluation Questions 2.4-Biological Resources-Question A.” Based on the discussion for FYLF in Question A, a determination was made that the project would have a “Less than significant impact with mitigation” for FYLF.

### **Hardhead**

Please reference section 2.4 “Discussion of Environmental Evaluation Questions 2.4-Biological Resources-Question A.” Based on the discussion for hardhead in Question A, a determination was made that the project would have a “Less than significant impact” for hardhead.

### **Discussion of CEQA Question E**

The following CEQA Checklist item was used to evaluate conflicts with any local policies or ordinances.

- Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance as none were identified within the project limits. Therefore, there is no impact.

#### ***CEQA Conclusion***

The proposed project would not conflict with any local plans or ordinances protecting biological resources. Therefore, there is no impact.

#### **Discussion of CEQA Checklist Question F**

The following CEQA Checklist item was used to evaluate conflicts with the provisions of an adopted Conservation Plan:

- Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

A “No Impact” determination in this section is based on the location of the proposed project. The project is not located within any habitat or community conservation locations; therefore, it would not conflict with provisions of any Habitat or Natural Community Conservation Plan.

#### ***CEQA Conclusion***

The proposed project is not located within any habitat or community conservation locations; therefore, it would not conflict with provisions of any Habitat or Natural Community Conservation Plans. Therefore, there is no impact.

#### ***Avoidance and Minimization Measures***

The following avoidance and minimization measures would be implemented for FYLF:

- Limit water diversion to the minimum amount of time required to complete work at each location.
- Limit the construction footprint to the minimum area possible to complete the project.
- Construction work windows will be established in potential frog habitat. This period is estimated to be July 1 to August 30 and will be limited to a period before tadpole’s morph into subadults, before they begin to disperse into adjacent tributaries and associated habitat. This window is estimated to have the least

amount of direct effects FYLF overall and provide the least impedance to species movement throughout the ESL.

- Pre-construction surveys will be performed to determine presence of FYLF.
- An aquatic organism rescue plan will be developed and utilized during dewatering to minimize the effects of dewatering and prevent mortality existing aquatic organisms. This plan will require the capture and relocation of organisms from Bear Ranch Creek to a preselected relocation in the adjacent NFFR.
- Worker awareness training will be performed to educate personnel, explaining protective measures, species identification, life history, habitat requirements during all life stages, and species's protective status. It will also include instruction that if any worker encounters a FYLF within or near the worksite, work shall halt, and biological representative will be informed.
- A qualified biologist will be present during work in potential FYLF habitat and will record all observations and detections of other sensitive species during surveys.
- A habitat restoration plan will be drafted to ensure proper restoration of all temporary impact areas within the ESL.

The following avoidance and minimization measures would be implemented for potential impacts to hardhead.

- Limit excavation to the minimum required to complete project.
- Limit the construction footprint to the minimum area possible to complete the project.
- Construction work windows will be established for in water work. This period is estimated to be July 1 to August 30 and will be related to FYFL work windows.
- Pre-construction surveys will be performed to determine presence of hardhead.
- An aquatic organism rescue plan will be developed and utilized during dewatering to minimize the effects of dewatering and prevent mortality of existing aquatic organisms. This plan will require the capture and relocation of organisms from Bear Ranch Creek to a preselected relocation in the adjacent NFFR.
- Worker awareness training will be performed to educate personnel, explaining protective measures, species identification, life history, habitat requirements during all life stages, and species's protective status. It will also include instructions that if any worker encounters a hardhead within or near the worksite, work shall halt, and biological representative will be informed.
- A qualified biologist will be present during in water work and will record all observations and detections of other sensitive species during surveys.

The following avoidance and minimization measures will be implemented for impacts to arroyo willow thicket habitat:

- Install and maintain temporary construction Best Management Practices (BMPs) to minimize the impacts to riparian habitat.
- A dewatering plan will be established, and conditions in the applicable permits will be implemented.
- Construction will be limited to the minimum area necessary to construct the project and excavation will be limited to the minimum required to complete the project.

The following avoidance and minimization measures will be implemented for (permanent? temporary? impacts to) other waters of the U.S and State:

- Install and maintain temporary construction BMPs to minimize the impacts to water quality. Contractors will also prepare a Storm Water Pollution Prevention Plan (SWPPP) to establish temporary pollution control measures.
- A dewatering plan will be established and conditions in the applicable permits will be implemented.
- Install fencing to protect sensitive biological resources.
- Retain a qualified biologist to conduct monitoring during construction in sensitive habitats.
- Protect water quality to minimize sedimentation in and sediment-laden runoff to wetlands and other waters.
- Limit ground disturbance to the minimum required to complete project.
- Limit the construction footprint to the minimum area possible to complete the project.

### Mitigation Measures

The following mitigation measures are being proposed to reduce impacts of the project:

BIO 1: Caltrans will purchase CDFW approved mitigation credits for the restoration of riparian habitat through off-site permittee-responsible mitigation to be used as compensation for permanent impacts to Arroyo Willow Thicket natural community.

BIO 2: Compensatory mitigation is proposed for impacts to FYFL in the form of habitat enhancement at Bear Ranch Creek. Habitat enhancement will include modifying culvert outlets to improve passage conditions for FYFL. In addition, the temporary impact to riparian habitat will be revegetated with regionally approved species.

## 2.5 Cultural Resources

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	No	Yes	No	No
<b>Would the project:</b> b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	No	No	No	Yes
<b>Would the project:</b> c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No	No	No	Yes

“Less Than Significant Impact” and “No Impact” determinations in this section are based on the scope, description, and location of the proposed project, as well as the Historic Property Survey Report (HPSR) and Finding of Effects (FOE) report dated January 28, 2020.

### *Regulatory Setting*

The term “cultural resources,” as used in this document, refers to the “built environment” (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” 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 listing in 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 historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the

ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP'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 the Department 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 (in Section 4(f) terminology—historic sites). See Appendix A for specific information about Section 4(f).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department 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 State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU)<sup>1</sup> between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

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<sup>1</sup> The MOU is located on the SER at [http://www.dot.ca.gov/ser/vol2/5024mou\\_15.pdf](http://www.dot.ca.gov/ser/vol2/5024mou_15.pdf)

### ***Environmental Setting***

The proposed project occurs on the east bank of the NFFR within the Feather River Canyon in eastern Butte County, approximately 4.3 miles northeast of the town of Pulga and 25 miles northeast of Oroville. It is situated within the Pulga 7.5-minute U.S. Geographic Survey (USGS) topographic quadrangle, township 23 North, Range 5 East, Sections 14 and 15.

The proposed project is located within the boundaries of the Feather River Highway Historic District (FRHHD). The boundaries of the FRHHD are PM 35.37 in Butte County to PM 36.00 in Plumas County, a distance of approximately 50 miles. The FRHHD was determined eligible for listing in the National Register of Historic Places (NRHP) through consensus on April 16, 1987, under criteria A and C at the state level of significance. The period of significance for the historic property is 1927 through 1937. The FRHHD is listed in the California Register of Historical resources (CRHR) and is on the Master List of State-Owned Historical Resources.

Record searches, literature review, consultation, and surveys identified one cultural resource within the project limits: The Feather River Highway Historic District (FRHHD). The FRHHD, which was determined eligible for listing in the National Register of Historic Places (NRHP) in 1987, begins at PM 35.37 in Butte County and extends to PM 36.5 in Plumas County. The FRHHD is listed in the California Register of Historical Resources (CRHR) and is on the Master List of State-Owned Historical Resources. The proposed project will affect approximately one mile of the FRHHD, including the elements that are contributing features of the historic property: the existing Bear Creek Bridge (No. 12-0039) at PM 46.44.

Extended Phase I (XPI) archaeological testing was conducted in the footprint of the proposed project near a known archaeological resource to determine whether project construction activities would impact previously unidentified cultural deposits; however, the testing was negative (no resources found). No other properties listed within the National Register of Historic Places, California Historical Landmarks, California Inventory of Historic Resources, California Points of Historical Interest, or California Register of Historical Resources are present within the project limits.

### ***Discussion of Environmental Evaluation Question 2.5—Cultural Resources***

#### ***a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?***

The proposed project would cause a substantial adverse change in the significance of a historical resource. The roadway and the existing Bear Creek Bridge (No. 12 0039) are part of the FRHHD, which is eligible for listing in the NRHP. It was determined that the proposed work would have an Adverse Effect on this segment of the FRHHD. To alleviate the impact to the FRHHD, a 5024 Memorandum of Understanding (MOU)



between Caltrans and SHPO has been initiated. Consultation with SHPO is ongoing. In addition, Caltrans has been consulting with Plumas National Forest and SHPO regarding aesthetic treatments and design features to apply to minimize and mitigate the Adverse Effect the project will have for the entire FRHHD. Therefore, the impact would be less than significant with mitigation.

***b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?***

The proposed project would not cause substantial adverse change in the significance of an archaeological resource as the results of the extended phase I site investigations determined that no cultural resources are present in the project limits or the area of potential impact. Therefore, there is no impact under CEQA.

***c) Disturb any human remains, including those interred outside of dedicated cemeteries?***

The proposed project would not disturb any human remains, including those interred outside of dedicated cemeteries as none are present within the project limits. If human remains are identified during the construction activity, they would be treated in accordance with the requirements of California Health and Safety Code section 7050.5 and Public Resources Code section 5097.98. If, pursuant to §7050.5 (c) of the California Health and Safety Code, the county coroner/medical examiner determines that the human remains are or may be of Native American origin, then the discovery shall be treated in accordance with the provisions of §5097.98 (a)-(d) of the California Public Resources Code. Therefore, there is no impact.

***Avoidance and Minimization Measures***

Caltrans will consult with the USFS and SHPO to arrive at a consensus on aesthetic applications to apply for the new bridge and retaining walls.

Caltrans with the assistance of USFS will develop the following mitigation measures that would offset the impacts caused by the project and provide a benefit the general public.

***Mitigation Measures***

CUL 1: Caltrans will record the affected section of the FRHHD, including the Bear Creek Bridge, in accordance with the standards of the Historic American Engineering Record, Level III. Documentation will include large format photographs, as-built drawings (if available), and an architectural data form. Electronic and paper copies will be provided to the USFS, Plumas National Forest; the SHPO; Caltrans Library and History Center; and Caltrans CSO. Copies will also be offered to the Plumas County Museum, Butte County Historical Society, and the Northeast Information Center at Chico State University.

CUL 2: Caltrans is proposing to produce a short film documenting the evolution of the Feather River Canyon. The film will include its geological formation, Native American



occupation, construction of the railroad, hydroelectrical facilities, the roadway, and the establishment of numerous small towns. The film will be posted on Caltrans website and provided to local repositories and schools.

***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.6 Energy

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	No	No	No	Yes
<b>Would the project:</b> b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and Air Quality and Energy Analysis prepared December 6, 2019. Potential impacts to energy are not anticipated due to:

- a) The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. The construction related energy consumption would be temporary. There will be no new source of energy demand. The need for fuel would have no noticeable effect on peak or baseline demand for energy. Therefore, there is no impact.
- b) The project will not conflict with state or local plans for renewable energy or energy efficiency. Therefore, there is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.7 Geology and Soils

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No	No	No	Yes
<b>Would the project:</b> a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: ii) Strong seismic ground shaking?	No	No	No	Yes
<b>Would the project:</b> a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iii) Seismic-related ground failure, including liquefaction?	No	No	No	Yes
<b>Would the project:</b> a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iv) Landslides?	No	No	No	Yes
<b>Would the project:</b> b) Result in substantial soil erosion or the loss of topsoil?	No	No	No	Yes
<b>Would the project:</b> 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?	No	No	No	Yes

<b>Would the project:</b> 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?	No	No	No	Yes
<b>Would the project:</b> 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?	No	No	No	Yes
<b>Would the project:</b> f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	No	No	Yes

“No impact” determinations for geology and soil are based on the project scope, field reviews, California Geological Survey Maps, U.S. Geological Survey Landslide Inventory, Department of Conservation/Caltrans Highway Corridor Landslide Hazard Mapping program, California Geological Survey (CGS), Earthquake Zones of Required Investigation map, and the Butte County Local Hazard Mitigation Plan Update. Potential impacts to geology and soils are not anticipated due to:

- a) i: The proposed project is not in a fault zone and would not rupture of a known earthquake fault, as delineated by the most recent Alquist-Priolo Earthquake Fault Zoning Map. Therefore, there is no impact.
- a) ii: The proposed project would not cause potential substantial adverse effects, including the risk of loss, injury, or death due to strong seismic ground shaking. Therefore, there is no impact.
- a) iii: The proposed project would not cause substantial adverse effects, including the risk of loss, injury, or death due to seismic-related ground failure, including liquefaction. The project area is not in a liquefaction zone; the general composition of the soils are sedimentary rocks. Therefore, there is no impact.
- a) iv: The proposed project would not cause substantial adverse effects, including the risk of loss, injury, or death due to landslides. The project area is not susceptible to landslides, nor has a landslide occurred where the proposed project is located. Therefore, there is no impact.
- b) The proposed project would not result in substantial soil erosion or the loss of topsoil. The project will implement erosion control during construction. Therefore, there is no impact.
- c) The proposed project is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. The project limits go over

several different geologic units consisting of marine sedimentary rock, metavolcanics rock, and plutonic rock. Therefore, there is no impact.

- d) The proposed project is not located on expansive soil, creating substantial risks to life or property. Therefore, there is no impact.
- e) The proposed project would not construct septic tanks or alternative waste water disposal systems. Therefore, there is no impact.

### ***No Build Alternative—Geology and Soils***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.8 Greenhouse Gas Emissions

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	No	No	Yes	No
<b>Would the project:</b> b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No	No	Yes	No

### *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 (also referred to as 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 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>), and various hydrofluorocarbons (HFCs). CO<sub>2</sub> is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO<sub>2</sub>.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or "mitigate" the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

### **Regulatory Setting**

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

#### **FEDERAL**

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices.<sup>2</sup> This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability.”<sup>3</sup> Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program on the basis of each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States.

*Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006):* This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity;

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<sup>2</sup> <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

<sup>3</sup> <https://www.sustainablehighways.dot.gov/overview.aspx>

(10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA<sup>4</sup>, in conjunction with the National Highway Traffic Safety Administration (NHTSA), is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. The current standards require vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. EPA and NHTSA are currently considering appropriate mileage and GHG emissions standards for 2022–2025 light-duty vehicles for future rulemaking.

NHTSA and EPA issued a Final Rule for “Phase 2” for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO<sub>2</sub> emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

## STATE

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

*EO S-3-05 (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 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

*AB 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006:* AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)).

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<sup>4</sup> 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 GHGs 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.



The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

*SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection:* This bill requires ARB to set regional emissions reduction targets for 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 how it will achieve the emissions target for its region.

*SB 391, Chapter 585, 2009, California Transportation Plan:* This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

*EO B-16-12 (March 2012):* Orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

*EO B-30-15 (April 2015):* Establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>e).<sup>5</sup> Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

*SB 32, Chapter 249, 2016:* Codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

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<sup>5</sup> GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO<sub>2</sub> is the most important GHG, so amounts of other gases are expressed relative to CO<sub>2</sub>, using a metric called "carbon dioxide equivalent" (CO<sub>2</sub>e). The GWP of CO<sub>2</sub> is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO<sub>2</sub>.

**SB 1386, Chapter 545, 2016:** Declared “it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state’s greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.”

**AB 134, Chapter 254, 2017:** Allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

### ***Environmental Setting***

The proposed project sits along SR 70 in Butte County. The surrounding land use is a mix of national forest, open space, and agriculture and characterized by rolling to mountainous terrain. The project is adjacent to the NFFR and goes over Bear Ranch Creek. SR 70 is an undivided two-lane conventional scenic highway that runs South-North. The nearest alternative route is SR 32, approximately 35 miles to the southwest.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4.

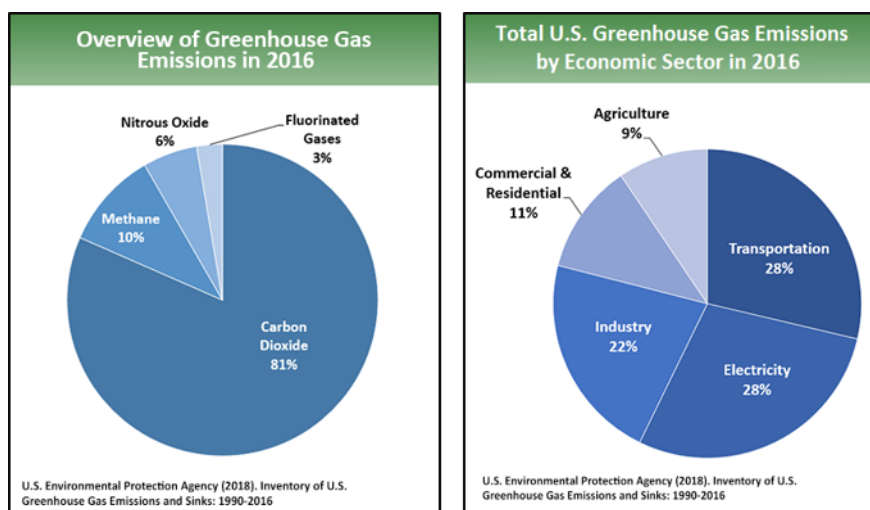
### **NATIONAL GHG INVENTORY**

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change (see figure 5). The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, perfluorocarbons, SF<sub>6</sub>, and nitrogen trifluoride. It also accounts for emissions of CO<sub>2</sub> that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO<sub>2</sub> (carbon sequestration). The 1990–2016 inventory found that of 6,511 MMTCO<sub>2</sub>e GHG emissions in 2016, 81% consist of CO<sub>2</sub>, 10% are CH<sub>4</sub>, and 6% are N<sub>2</sub>O; the balance consists of fluorinated gases ([EPA 2018a](#)).<sup>6</sup> In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of U.S. GHG emissions.

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<sup>6</sup> U.S. Environmental Protection Agency. 2018. Inventory of U.S. Greenhouse Gas Emissions and Sinks. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

**Figure 3. U.S. 2016 Greenhouse Gas Emissions**

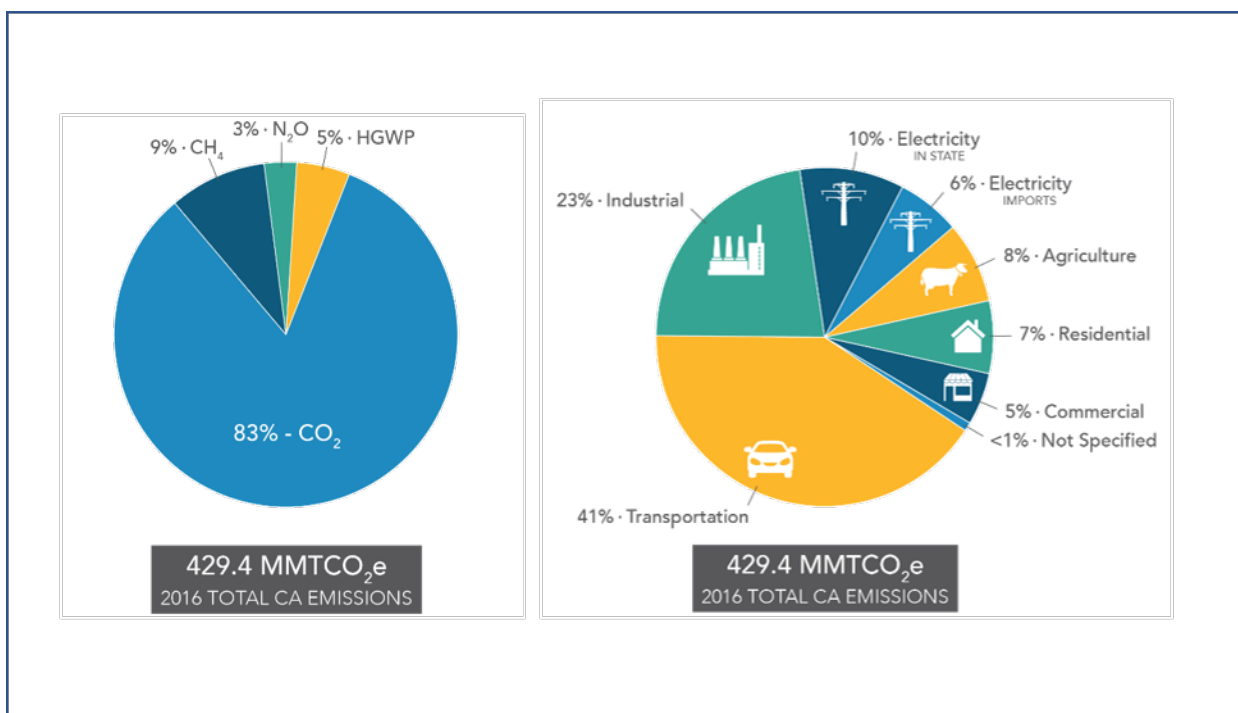


## STATE GHG INVENTORY

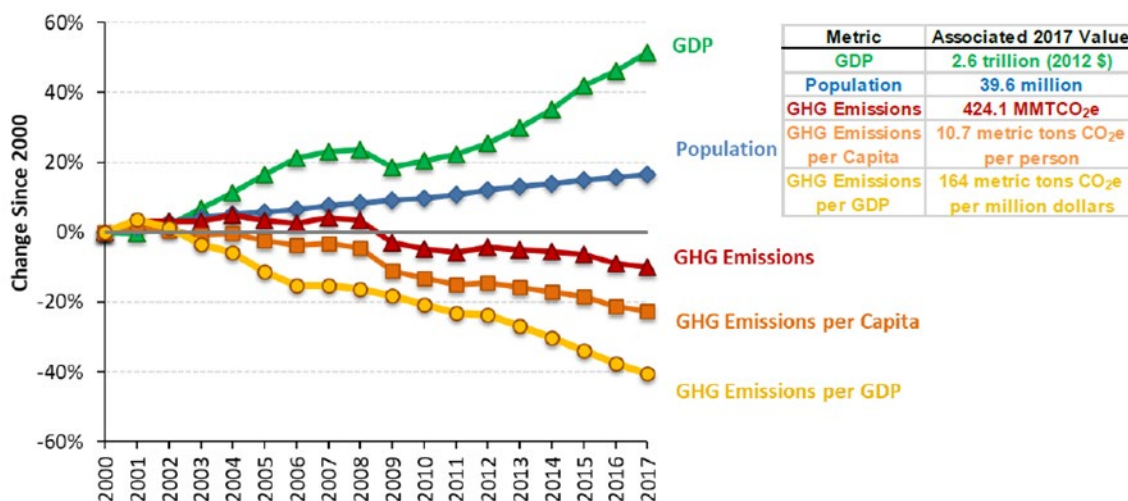
ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2018 edition of the GHG emissions inventory found total California emissions of 429 MMTCO<sub>2</sub>e for 2016, with the transportation sector responsible for 41% of total GHGs. It also found that GHG emissions have declined from 2000 to 2016 despite growth in population and state economic output.<sup>7</sup>

<sup>7</sup> 2018 Edition of the GHG Emission Inventory (July 2018). <https://www.arb.ca.gov/cc/inventory/data/data.htm>

**Figure 4. California 2016 Greenhouse Gas Emissions**



**Figure 5. Change in California GDP, Population, and GHG Emissions**



AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second

updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

## REGIONAL PLANS

ABR sets regional targets for California's 18 MPOs to use in their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005. The Butte County Association of Governments is the MPO for the project area. Butte County Association of Governments has developed a Sustainable Communities Strategy to reduce greenhouse gas emissions by 1 percent by 2020 and 1 percent by 2035.

## Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. CO<sub>2</sub> emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH<sub>4</sub> and N<sub>2</sub>O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Public Resources Code, § 21083(b)(2)). As the California Supreme Court explained, "Because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) 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. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

## Operational Emissions

The purpose of the proposed project is to replace the existing bridge at Bear Ranch Creek with a 50-foot single span bridge, raise the roadbed profile approximately 5 feet and protect the embankment with rock slope protection. The project would not be adding additional travel lanes, change roadway capacity, or vehicle miles traveled. Although greenhouse gas emissions would be produced during the construction period,

the project once completed will not lead to an increase in operational greenhouse gas emissions.

### ***Construction Emissions***

Construction GHG emissions would result from material processing, on-site construction equipment, and 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 offset to some degree by longer intervals between maintenance and rehabilitation activities.

Carbon Dioxide (CO<sub>2</sub>) emissions generated from construction equipment were estimated using the Caltrans Construction Emissions Tool (CAL-CET). The estimated emissions would be 157.2 tons of CO<sub>2</sub> over a period of 528 working days.

All construction contracts include Caltrans Standard Specifications Sections 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

### ***CEQA Conclusion***

While the proposed project will result in greenhouse gas emissions during construction, it is anticipated that the project will not result in any increase in operational greenhouse gas emissions. The proposed project does not conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction greenhouse gas emission reduction measures, the impact would be less than significant.

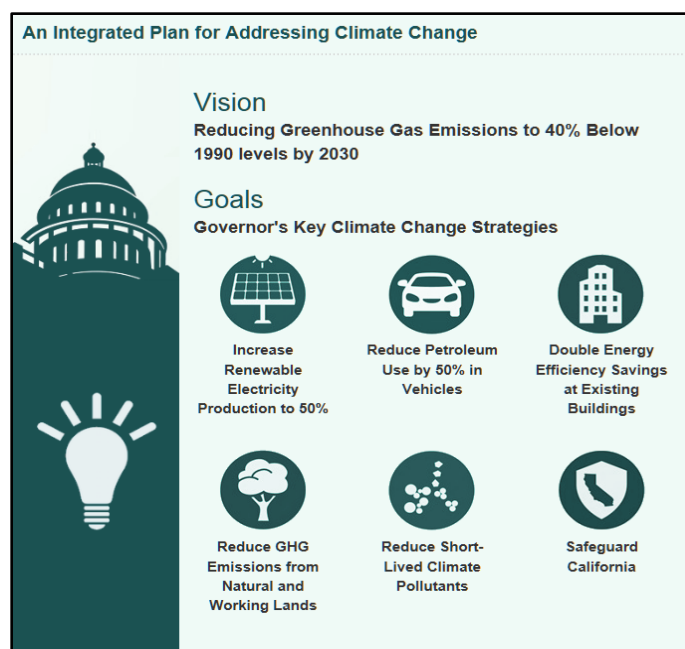
Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

## Greenhouse Gas Reduction Strategies

### Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals Figure 9 that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*. See Figure 9.

**Figure 6. California Climate Strategy**



The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing greenhouse gas emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030.

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that



policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

### ***Caltrans Activities***

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

### **CALIFORNIA TRANSPORTATION PLAN (CTP 2040)**

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO<sub>2</sub> reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

*SB 391 (Liu 2009)* requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce greenhouse gas emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

### **CALTRANS STRATEGIC MANAGEMENT PLAN**

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions



## FUNDING AND TECHNICAL ASSISTANCE PROGRAMS

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

## CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES

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) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

## PROJECT-LEVEL GREENHOUSE GAS REDUCTION STRATEGIES

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

- The construction contractor must comply with the 2018 Caltrans' Standard Specifications Section 14-9. Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.
- Compliance with Title 13 of the California Code of Regulations, which includes restricting idling of construction vehicles and equipment to no more than 5 minutes.
- Anticipated traffic control has an estimated maximum delay of 10 minutes during reversing control and 20 minutes during intermittent closure. During k-rail placement and tie-in construction operations, public traffic may be stopped in both directions for periods not to exceed 5 minutes. After each closure, all accumulated traffic must be allowed to pass through the work zone before another closure is made.
- Caltrans' Standard Specification 7-1.02C "Emissions Reduction" ensures that construction activities adhere to the most recent emissions reduction regulations mandated by the California ARB.

- Utilize a traffic management plan to minimize vehicle delays and idling emissions.
- Construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- The existing bridge would remain open during construction, avoiding lengthy detours.

### Adaptation Strategies

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must 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 their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges, combined with a rising sea level, can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

### **FEDERAL EFFORTS**

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGRCP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. Ch. 56A § 2921 et seq). The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.” Chapter 12, “Transportation,” presents a key discussion of vulnerability assessments. It notes that “asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime.”

U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and

adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions.”<sup>8</sup>

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*, December 15, 2014)<sup>9</sup> established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems.

FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels.<sup>10</sup>

## STATE EFFORTS

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system.

California’s Fourth Climate Change Assessment (2018) is the state’s latest effort to “translate the state of climate science into useful information for action” in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- Resilience is the “capacity of any entity—an individual, a community, an organization, or a natural system—to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience”. Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.

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<sup>8</sup> [https://www.fhwa.dot.gov/environment/sustainability/resilience/policy\\_and\\_guidance/usdot.cfm](https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm)

<sup>9</sup> <https://www.fhwa.dot.gov/legisregs/directives/orders/5520.cfm>

<sup>10</sup> <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

- *Vulnerability* is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factors. These factors include, but are not limited to, ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate “sea-level rise (SLR) projections into planning and decision making for projects in California” in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.<sup>11</sup>

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California’s infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

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<sup>11</sup> <http://www.opc.ca.gov/updating-californias-sea-level-rise-guidance/>

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

### *Caltrans Adaptation Efforts*

#### **CALTRANS VULNERABILITY ASSESSMENTS**

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

#### **PROJECT ADAPTION ANALYSIS**

### *Sea-Level Rise*

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

### **Floodplains Analysis**

The propose of this project is to address annual flooding at this section of SR 70. NFFR floods onto the roadway due to annual winter storms which damages the embankment and causes long delays and even closures of SR 70. The project proposes to raise the roadway by approximately 5 feet and install soldier pile walls to prevent erosion of the embankment.

### **Wildfire**

The proposed project is in a Federally Responsible area of very high fire severity. Design features that would help prevent the spread of wildfire and protect the asset from harm include 8-foot wide shoulders on both directions, soldier pile walls to prevent embankment erosion.

## 2.9 Hazards and Hazardous Materials

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No	No	Yes	No
<b>Would the project:</b> 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?	No	No	Yes	No
<b>Would the project:</b> c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No	No	No	Yes
<b>Would the project:</b> 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?	No	No	No	Yes
<b>Would the project:</b> 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 or excessive noise for people residing or working in the project area?	No	No	No	Yes
<b>Would the project:</b> f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No	No	No	Yes
<b>Would the project:</b> g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No	NO	No	Yes

“Less Than Significant Impact” and “No Impact” determinations in this section are based on the scope, description, and location of the proposed project, as well as the Initial Site Assessment dated January 28, 2019.

### ***Regulatory Setting***

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement the Resource Conservation and Recovery Act (RCRA) in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and clean up contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

### ***Environmental Setting***

The proposed project, which is not located within or impacting any sites on the Cortese list, is located in an area where there is a likelihood of contamination within the ESL. This project includes work on existing structures which may contain low levels of aerially deposited lead, thermoplastic paint containing lead, and treated wood.

### ***Discussion of Environmental Evaluation Question 2.9-Hazards and Hazardous Materials***

a-b) The proposed project would not create a significant hazard to the public. Minor hazardous waste issues that may be or are confirmed at the project location are aerially deposited lead, thermoplastic paint, and treated wood waste.

Low level of aerially deposited lead from the historic use of leaded gasoline exist along roadways throughout California. Prior to construction a site investigation will be conducted to determine if hazardous soils exist and what actions, if any, will need to occur during construction.

Thermoplastic paint may contain lead of varying concentrations depending upon color, type, and year of manufacture. Traffic stripes will be removed and disposed of in accordance with Caltrans' Standard Specification and Provision Section 36-4 "Residue



Containing High Lead Concentration Paints”, which will also require a Lead Compliance Plan.

Hazardous chemicals are known to exist in treated wood posts associated with metal beam guardrail. If treated wood posts are removed, they would be disposed of in accordance with Standard Special Provision 14-11.14.

The proposed project would have a less than significant impact on public exposure to hazards. The project features mentioned above would be implemented if appropriate, and impacts would be further reduced.

c) No existing or proposed schools are present within one-quarter mile of the project area; therefore, there would be no impact to schools from hazardous emissions or hazardous or acutely hazardous materials.

d) This project is not located on a site that is included on a list of hazardous material sites pursuant to Government Code Section 65962.5, so there would be no impact from such sites.

e) This project is not located within an airport land use plan, within 2 miles of a public airport, or within the vicinity of a private airstrip. The project would not result in a safety hazard for people residing or working in the project area due to airport hazards, so there would be no impact.

f) The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, there is no impact.

g) The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. SR 70 will remain open during construction and in the event of a wildfire, emergency services and traveling public will be able to drive during construction. Therefore, there is no impact.

### ***Mitigation Measures***

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.10 Hydrology and Water Quality

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	No	No	No	Yes
<b>Would the project:</b> b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No	No	No	Yes
<b>Would the project:</b> c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:  (i) result in substantial erosion or siltation on- or off-site;	No	No	No	Yes
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No	No	No	Yes
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No	No	No	Yes
(iv) impede or redirect flood flows?	No	No	No	Yes
<b>Would the project:</b> d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No	No	No	Yes
<b>Would the project:</b> e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, Floodplain Hydrology Study completed on September 5, 2018 and a Water Quality Assessment completed on March 26, 2019.

## ***Regulatory Setting***

### ***Federal***

#### **CLEAN WATER ACT**

In 1972, Congress amended the federal Water Pollution Control Act, making the addition of pollutants to waters of the United States from any point source<sup>12</sup> unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit program. The following are important CWA sections.

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

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<sup>12</sup> A point source is any discrete conveyance such as a pipe or a human-made ditch.

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

USACE issues two types of 404 permits: General and Standard Permits. There are two types of General Permits: Regional Permits and Nationwide Permits. Regional permits are issued for a general category of activities when they are similar and cause minimal environmental effect. Nationwide Permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE’s Standard Permits. There are two types of Standard Permits: Individual Permits and Letters of Permission. For Standard Permits, the USACE decision to approve is based on compliance with EPA’s Section 404 (b)(1) Guidelines (40 CFR § 230), and whether the permit approval is in the public interest. The Guidelines were developed by EPA in conjunction with USACE and allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if no practicable alternative exists that would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have lesser effects to waters of the United States and not cause any other significant adverse environmental consequences.

According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent<sup>13</sup> standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the United States. In addition, every permit from the USACE, even if not subject to the Guidelines, must meet general requirements. See 33 CFR Part 320.4.

## ***State***

### **PORTER-COLOGNE WATER QUALITY CONTROL ACT**

California’s Porter-Cologne Water Quality Control Act (Porter-Cologne Act), enacted in 1969, provides the legal basis for water quality regulation in California. This act requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. The act predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the United States, such as groundwater and surface waters not considered waters of the United States. Additionally, the Porter-Cologne Act prohibits discharges of “waste” as defined and this definition is broader than the CWA definition of “pollutant.” Discharges under

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<sup>13</sup> The EPA defines *effluent* as “wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall.”

the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Board and Regional Water Quality Control Boards (RWQCBs) are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and for regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, the RWQCBs designate beneficial uses for all water body segments and then set the criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the State Water Board identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and that the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

#### **STATE WATER RESOURCES CONTROL BOARD AND REGIONAL WATER QUALITY CONTROL BOARDS**

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

#### **NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM**

##### **MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

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

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

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges; and
3. Caltrans' stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) BMPs, to the maximum extent practicable, and other measures the State Water Board determines necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the statewide Storm Water Management Plan (SWMP) to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including selection and implementation of BMPs. Further, in recent years, hydromodification control requirements and measures to encourage low impact development have been included as a component of new development permit requirements. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address stormwater runoff.

#### **CONSTRUCTION GENERAL PERMIT**

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The Construction General Permit was amended by 2010-0014-DWQ and 2012-0006-DWQ on February 14, 2011, and July 17, 2012, respectively. The permit regulates stormwater discharges from construction sites that result in a disturbed soil area (DSA) of 1 acre or greater and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the Construction General Permit. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters and whether the receiving water has been designated by the SWRCB as sediment-sensitive. SWPPP requirements vary according to the risk level. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring and certain BMPs,

and, in some cases, before-construction and after-construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans' Standard Specifications, a Water Pollution Control Program rather than a SWPPP is necessary for projects with a DSA of less than 1 acre.

#### **SECTION 401 PERMITTING**

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

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

#### ***Environmental Setting***

The proposed project is along SR 70 adjacent to the NFFR in Butte County. Work also includes replacing the existing bridge over Bear Ranch Creek with a new bridge. The closest receiving water body for this project is the Feather River which confluent with Lake Oroville.

#### ***Discussion of Environmental Evaluation Question 2.10—Hydrology and Water Quality***

- a) The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. The proposed project would comply with the conditions of the California SWRCB CGP. The CGP requires that the construction contractor prepare a project specific SWPPP, which identifies construction site Best Management Practices (BMP) to reduce construction impacts on receiving water quality based on potential pollutants and pollutant sources. Therefore, there is no impact.
- b) The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. No municipal or domestic



water supply reservoirs or ground water percolation facilities are present within or near the project limits. Therefore, there is no impact.

- c) The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - I. The proposed project not result in substantial erosion or siltation on- or off-site. Appropriate construction site BMPs will be implemented to minimize and reduce erosion or siltation from occurring during construction. Therefore, there is no impact
  - II. The proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site as this area get high river flows at least once per year due to winter storms. Therefore, no impact.
  - III. The proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, there is no impact.
  - IV. The proposed project would not impede or redirect flood flows. Dewatering will be required for replacing the existing bridge at Bear Ranch Creek. The project will adhere to the conditions of the Statewide NPDES permit Work in Bear Ranch Creek will be done during low flow conditions if possible.
- d) The proposed project is not in an area that is at risk of seiches or tsunamis. The project area is known to have high river flows at least once per year which have flooded the existing highway facilities. However, the proposed project would not store pollutants and would not be constructed with hazardous materials that would pose a threat to the public if disturbed by a flood event. Therefore, there is no impact.
- e) The proposed project does not conflict with or obstruct implementation of any water pollution control plan or sustainable groundwater management plan. Therefore, there is no impact.

### ***Mitigation Measures***

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.



## 2.11 Land Use and Planning

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> a) Physically divide an established community?	No	No	No	Yes
<b>Would the project:</b> b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to land use and planning are not anticipated due to:

- a) During construction, mainline traffic on SR 70 would remain open to one-way reversing traffic and no community diversion is anticipated. Therefore, there is no impact.
- b) The proposed project will comply with the stated goals of the Butte County Regional Transportation Plan, which includes goals for transportation, pedestrian access and safety, and freight rail. Therefore, there is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.12 Mineral Resources

<b>Question:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> 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?	No	No	No	Yes
<b>Would the project:</b> 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?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and the mineral resource maps from the California Department of Conservation. Potential impacts to mineral resources are not anticipated due to:

a - b) No mineral resources were identified within the project limits or would be affected by the proposed project. There would be no impact to mineral resources.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.13 Noise

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project result in:</b> a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No	No	No	Yes
<b>Would the project result in:</b> b) Generation of excessive groundborne vibration or groundborne noise levels?	No	No	No	Yes
<b>Would the project result in:</b> c) For a project located within the vicinity of a private airstrip or 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?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and the Air Quality and Noise Analysis Study dated January 28, 2019. Potential impacts to noise are not anticipated due to:

- 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 is not anticipated. Based on the scope of work, this project is not a Type I project. Traffic noise impact is not predicted to occur from the proposed project; therefore, noise abatement is not considered.

During construction, noise may be generated from the contractors’ equipment and vehicles. Caltrans requires the Contractor to conform to the provisions of 2018 Caltrans’ Standard Specification, Section 14-8.02 “Noise Control” which states “Control and monitor noise from work activities.” And “Do not exceed 86 dBA LMax at 50 feet from the job site activities from 9 p.m. to 6 a.m.”

- b.) The proposed project is not expected to generate excessive groundborne vibration or groundborne noise. Vibration levels could be perceptible and cause disturbances at residences near the project area during operation of heavy equipment. However, these effects would be short-term and intermittent and would cease once construction is completed.
- c.) The project is not located within the vicinity of a private, public, or public use airport. There would be no impact from airport noise

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.14 Population and Housing

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Induce substantial unplanned 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)?	No	No	No	Yes
<b>Would the project:</b> b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to population and housing are not anticipated due to:

- a) The proposed project would not increase capacity or access; therefore, the proposed project would not directly or indirectly induce population growth. The project would not add new homes or businesses and would not extend any roads or other infrastructure. Therefore, there is no impact.
- b) Although some areas surrounding the project are rural residential communities, there are no residences within the project area, and no replacement housing would be necessary. Therefore, is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.15 Public Services

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	No	No	No	Yes
Police protection?	No	No	No	Yes
Schools?	No	No	No	Yes
Parks?	No	No	No	Yes
Other public facilities?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to public services are not anticipated due to:

- a.) During construction any emergency service agency whose ability to respond to incidents may be affected by traffic control would be notified prior to any closure. All emergency vehicles would be accommodated through the work area. There would be no impact to emergency services from the project. Therefore, there is no impact.

### **No Build Alternative**

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.16 Recreation

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	No	No	No	Yes
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?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to recreation are not anticipated due to:

- a.) The proposed project would not increase the use of existing neighborhood parks, regional parks, or other recreational facilities. No neighborhood parks, regional parks, or other recreational facilities are present within the project limits. Therefore, there is no impact.
- b.) The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities. No neighborhood parks, regional parks, or other recreational facilities are present within the project limits. Therefore, there is no impact.
- a) The project does not include recreational facilities or require the construction or expansion of recreational facilities. No neighborhood parks, regional parks, or other recreational facilities are present within the project limits. There would be no impact from the construction of recreational facilities. Therefore, there is no impact.

### *No Build Alternative*

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.17 Transportation/Traffic

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No	No	No	Yes
<b>Would the project:</b> b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?  NOTE: While public agencies may immediately apply Section 15064.3 of the updated Guidelines, statewide application is not required until July 1, 2020. In addition, uniform statewide guidance for Caltrans projects is still under development. The PDT may determine the appropriate metric to use to analyze traffic impacts pursuant to section 15064.3(b). Projects for which an NOP will be issued any time after December 28, 2018, should consider including an analysis of VMT/induced demand if the project has the potential to increase VMT (see page 20 of OPR's updated SB 743 Technical Advisory), particularly if the project will be approved after July 2020.	No	No	No	Yes
<b>Would the project:</b> c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No	No	No	Yes
<b>Would the project:</b> d) Result in inadequate emergency access?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and the Transportation Management Plan dated May 1, 2019. Potential impacts to transportation/traffic are not anticipated due to:

- a.) The proposed project does not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Therefore, there is no impact.



- b.) The proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b). Therefore, there is no impact.
- c.) The proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses. The proposed project would be raising the road profile by approximately 5 ft and replacing the existing bridge over the Bear Ranch Creek with a new bridge. Therefore, there is no impact.
- d.) The proposed project would not result in inadequate emergency access. During construction, mainline traffic on SR 70 would remain open to one-way reversing traffic and no community diversion is anticipated. Therefore, there is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.18 Tribal Cultural Resources

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p><b>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</b></p> <p>a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or</p>	No	No	No	Yes
<p>b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, and the Historic Property Survey Report (HPSR) dated January 28, 2020. Potential impacts to tribal cultural resources are not anticipated due to:

- a - b) The California Native American Heritage Commission (NAHC) was contacted to request a search of the sacred lands file and an updated list of Native American contacts for the project area. In June 2018, consultation letters were mailed to representatives of the Estom Yumekon Maidu Tribe of Enterprise Rancheria, Konkow Valley Band of Maidu, Mechoopda Indian Tribe, Mooretown Rancheria

of Maidu Indians, Tsi Akim Maidu, Greenville Rancheria, and Berry Creek Rancheria of Maidu Indians. The tribes that responded to these letters did not express any concerns with the project but requested dialog to begin once work had begun. In December 2018, emails were sent to tribal representatives listed above to inform them of the XPI at the Shady Rest Area with the exception for Mechoopda Indian Tribe. Mechoopda Indian Tribe responded in October 2018 that the project was outside the Mechoopda traditional territories. In June 2018, the XPI report was sent to the Native American noted on the contact list, except for the Mechoopda Indian Tribe, for review and comment. At the end of July of 2019, emails were sent asking for any comments on the XPI. No issues were noted and no comments on the XPI document. No Native American group contact desired an Environmentally Sensitive Area for the bedrock mortars, all agreed they were out of the project Area of Potential Effect (APE). Final XPI was sent in September 2019. No comments were received on the APE, Environmentally Sensitive Area, or on the effects finding. Through consultation, no tribal resources were identified within the project limits. Therefore, there is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.19 Utilities and Service Systems

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities—the construction or relocation of which could cause significant environmental effects?	No	No	No	Yes
<b>Would the project:</b> b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No	No	No	Yes
<b>Would the project:</b> c) 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?	No	No	No	Yes
<b>Would the project:</b> d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No	No	No	Yes
<b>Would the project:</b> e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to utilities and service systems are not anticipated due to:

- a) The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric

power, natural gas, or telecommunication facilities. Caltrans would verify the location of any underground gas, electric, water, or sewer lines within the project area. Therefore, there is no impact.

b) The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. Therefore, there is no impact.

c) The proposed project would not have a demand for wastewater treatment. Therefore, there is no impact.

d - e) The project would comply with all statutes and regulations related to the disposal of solid waste generated during construction. Therefore, there is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.20 Wildfire

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b> a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	No	Yes
<b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b> b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No	No	No	Yes
<b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b> c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No	No	No	Yes
<b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b> d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, location, and CalFire Hazard Severity Zone Maps of the proposed project. Potential impacts to wildfire are not anticipated due to:

- a) The proposed project is in a Federal responsibility area with very high fire severity. The project would not substantially impair this area as the existing

structures and roadway would remain open to one-way traffic during construction. Therefore, there is no impact.

- b) The proposed project would incorporate design features to prevent the uncontrolled spread of a wildfire within the project area. These design features would include steel posts as opposed to wood for guardrail, concrete weed mats for guardrail, and non-plastic culverts. Therefore, there is no impact.
- c) The proposed project is an infrastructure project, and the project would not require the installation or maintenance of additional infrastructure that would result in temporary or ongoing impacts to the environment. Therefore, there is no impact.
- d) The proposed project is not located in an area that has a high landslide risk, so no impact is anticipated from fire related landslides. Although the project would place fill in a 100-year floodplain, the project would comply with all pertinent regulations, and the project would not expose people or structures to fire related flooding. Therefore, there is no impact.

### ***No Build Alternative***

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

## 2.21 Mandatory Findings of Significance

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially 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?	No	Yes	No	No
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)?	No	No	No	Yes
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No	Yes

### *Discussion of Environmental Evaluation Question 2.21—Mandatory Findings of Significance*

a) The Less than Significant with Mitigation determination is based on the Natural Environmental Study, which was completed by a qualified Caltrans biologist in December of 2019. The proposed project does not have the potential to degrade the quality of the environment. The project may have minimal impacts to sensitive species known to occur near the project area and wetlands; therefore, these impacts have been reduced to "less than significant with mitigation". Please refer to Section 2.4 Biological Resources.

b-c) The no impact determination is based on the scope of work. The proposed project would not result in any adverse effects that, when considered in connection with other projects, would be considered cumulatively considerable. Based on the description of



the proposed project and consideration of potential effects, the project would not cause substantial adverse effects on human beings, either directly or indirectly. Therefore, there is no impact.

## **Chapter 3. Coordination and Comments**

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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. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

These agencies, organizations, and individuals were consulted to prepare this environmental document.

### **Coordination with Resource Agencies**

#### **Cultural**

- Consultation letters were mailed to representatives of the Estom Yumekon Maidu Tribe of Enterprise Rancheria, Konow Valley Band of Maidu, Meechupa Indian Tribe, Mooretown Rancheria of Maidu Indians, Tsi Akim Maidu, Greenville Rancheria, and Berry Creek Rancheria of Maidu Indians
- Native Heritage Commission was contacted for a Sacred Lands File search.
- Several site visits were conducted in 2019; two of which included members of United States Forest Service.
- Two meetings were held in Oroville with United States Forest Service, Plumas National Forest, regarding project impacts and possible mitigation measures.
- Consultation with the California State Historic Preservation Officer is ongoing regarding resolution of the project effects on the FRHHD.

#### **Biology**

- NMFS Fish Biologist was contacted for Technical Assistance.

- Greg Schmidt, United States Fish and & Wildlife Biologist for the Endangered Species Program and Caltrans Liaison for USFWS was contacted for Technical Assistance on March of 2019
- Several conversations between California Department of Fish and Wildlife and Caltrans biologist occurred between January 1, 2019 and December 30, 2019.

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## Chapter 4. List of Preparers

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These individuals performed the environmental work on the project:

### **California Department of Transportation, District 3**

David Gould – Associate Environmental Planner. Contribution: Environmental Coordinator and Document Writer.

Junior Magana - Associate Environmental Planner. Contribution: Environmental Coordinator and Document Writer.

Cara Lambirth - Senior Environmental Planner. Contribution: Environmental Branch Chief.

Erick Wulf - Associate Environmental Planner (Archeologist). Contribution: Historic Property Survey Report and Archaeological Survey Report.

Sydney Eto - Environmental Planner (Natural Sciences)/Project Biologist. Contribution: Natural Environmental Study.

Gail St John – Senior Environmental Planner/Principal Architectural Historian. Contribution: Historic Property Survey Report, Finding of Effects report

Alice Brown - Landscape Architect. Contribution: Visual Impact Assessment.

Youngil Cho - Air and Noise Specialist. Contribution: Traffic Noise and Air Quality Impact Assessment and Greenhouse Gas Construction Emission Analysis.

Rajive Chadha - Hazardous Waste Specialist. Contribution: Initial Site Assessment (ISA) for Hazardous Waste and Water Quality Assessment.

Jaroslawn Kusz - Project Engineer. Contribution: Project Design.

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## Chapter 5. References

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- California Air Resources Board (ARB). 2019b. *California Greenhouse Gas Emissions for 2000 to 2017. Trends of Emissions and Other Indicators*. [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2017/ghg\\_inventory\\_trends\\_00-17.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf). Accessed: August 21, 2019.
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- U.S. Global Change Research Program (USGCRP). 2018. *Fourth National Climate Assessment*. <https://nca2018.globalchange.gov/>. Accessed: August 21, 2019.



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# Appendix A. Title VI Policy

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STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, Governor

## DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR  
P.O. BOX 942873, MS-49  
SACRAMENTO, CA 94273-0001  
PHONE (916) 654-6130  
FAX (916) 653-5776  
TTY 711  
www.dot.ca.gov



Making Conservation  
a California Way of Life.

November 2019

### NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:  
<https://dot.ca.gov/programs/business-and-economic-opportunity/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, at 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at [Title.VI@dot.ca.gov](mailto:Title.VI@dot.ca.gov).

A blue ink signature of Toks Omishakin, consisting of a stylized 'T' followed by a series of loops and a horizontal line.

Toks Omishakin  
Director

*"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"*

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."





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# Appendix B. USFWS, NMFS, CNDDB, CNPS

## Species Lists

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### United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Sacramento Fish And Wildlife Office  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:  
Consultation Code: 08ESMF00-2018-SLI-2724  
Event Code: 08ESMF00-2019-E-02793  
Project Name: 03-3H540

February 05, 2019

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

#### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

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The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Sacramento Fish And Wildlife Office**  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
(916) 414-6600

## Project Summary

Consultation Code: 08ESMF00-2018-SLI-2724

Event Code: 08ESMF00-2019-E-02793

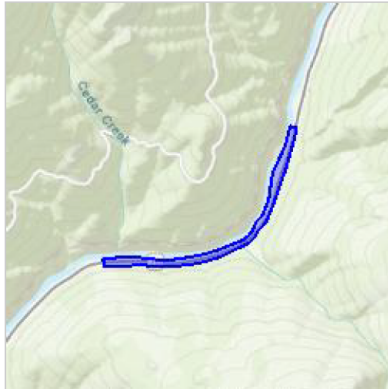
Project Name: 03-3H540

Project Type: TRANSPORTATION

Project Description: BUT-70 PM 46.0/47.0 - Pulga

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.84614516415046N121.39447844252439W>



Counties: Butte, CA

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## Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Query Criteria: Quad<span style='color:Red'> IS </span>(Pulga (3912174))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Allium jepsonii</i> Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
<i>Anomobryum julaceum</i> slender silver moss	NBMUS80010	None	None	G5?	S2	4.2
<i>Cardamine pachystigma</i> var. <i>dissectifolia</i> dissected-leaved toothwort	PDBRA0K1B1	None	None	G3G5T2Q	S2	1B.2
<i>Clarkia gracilis</i> ssp. <i>albicaulis</i> white-stemmed clarkia	PDONA050J1	None	None	G5T3	S3	1B.2
<i>Clarkia mildrediae</i> ssp. <i>mildrediae</i> Mildred's clarkia	PDONA050Q2	None	None	G3T2T3	S2S3	1B.3
<i>Clarkia mosquinii</i> Mosquin's clarkia	PDONA050S0	None	None	G2	S2	1B.1
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eremogone cliftonii</i> Clifton's eremogone	PDCAR17010	None	None	G2G3	S2S3	1B.3
<i>Eriogonum umbellatum</i> var. <i>ahartii</i> Ahart's buckwheat	PDPGN086UY	None	None	G5T3	S3	1B.2
<i>Erythranthe filicifolia</i> fern-leaved monkeyflower	PDPHR01150	None	None	G2	S2	1B.2
<i>Fritillaria eastwoodiae</i> Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G5	S3S4	
<i>Lewisia cantelovii</i> Cantelow's lewisia	PDPOR04020	None	None	G3	S3	1B.2
<i>Mylopharodon conocephalus</i> hardhead	AFCJB25010	None	None	G3	S3	SSC
<i>Myotis thysanodes</i> fringed myotis	AMACC01090	None	None	G4	S3	
<i>Packera eurycephala</i> var. <i>lewisrosei</i> Lewis Rose's ragwort	PDAST8H182	None	None	G4T2	S2	1B.2
<i>Penstemon personatus</i> closed-throated beardtongue	PDSCR1L4Y0	None	None	G2	S2	1B.2
<i>Poa sierrae</i> Sierra blue grass	PMPOA4Z310	None	None	G3	S3	1B.3
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC



**Selected Elements by Scientific Name**  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Rhynchospora capitellata</i></b> brownish beaked-rush	PMCYP0N080	None	None	G5	S1	2B.2
<b><i>Sedum albomarginatum</i></b> Feather River stonecrop	PDCRA0A030	None	None	G2	S2	1B.2

Record Count: 22



# CNPS *California Native Plant Society* Inventory of Rare and Endangered Plants



\*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

## Plant List

27 matches found. [Click on scientific name for details](#)

### Search Criteria

Found in Quad 3912174

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Allium jepsonii</a>	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	S2	G2
<a href="#">Anomobryum julaceum</a>	slender silver moss	Bryaceae	moss		4.2	S2	G5?
<a href="#">Arctostaphylos mewukka ssp. truei</a>	True's manzanita	Ericaceae	perennial evergreen shrub	Feb-Jul	4.2	S3	G4?T3
<a href="#">Aspidotis carlotta-halliae</a>	Carlotta Hall's lace fern	Pteridaceae	perennial rhizomatous herb	Jan-Dec	4.2	S3	G3
<a href="#">Brodiaea sierrae</a>	Sierra foothills brodiaea	Themidaceae	perennial bulbiferous herb	May-Aug	4.3	S3	G3
<a href="#">Calycadenia oppositifolia</a>	Butte County calycadenia	Asteraceae	annual herb	Apr-Jul	4.2	S3	G3
<a href="#">Cardamine pachystigma var. dissectifolia</a>	dissected-leaved toothwort	Brassicaceae	perennial rhizomatous herb	Feb-May	1B.2	S2	G3G5T2Q
<a href="#">Clarkia gracilis ssp. albicaulis</a>	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	1B.2	S3	G5T3
<a href="#">Clarkia mildrediae ssp. lutescens</a>	golden-anthered clarkia	Onagraceae	annual herb	Jun-Aug	4.2	S3	G3T3
<a href="#">Clarkia mildrediae ssp. mildrediae</a>	Mildred's clarkia	Onagraceae	annual herb	May-Aug	1B.3	S2S3	G3T2T3
<a href="#">Clarkia mosquinii</a>	Mosquin's clarkia	Onagraceae	annual herb	May-Jul(Sep)	1B.1	S2	G2
<a href="#">Cypripedium californicum</a>	California lady's-slipper	Orchidaceae	perennial rhizomatous herb	Apr-Aug(Sep)	4.2	S4	G4
<a href="#">Cypripedium fasciculatum</a>	clustered lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2	S4	G4
<a href="#">Eremogone cliffonii</a>	Clifton's eremogone	Caryophyllaceae	perennial herb	Apr-Sep	1B.3	S2S3	G2G3
<a href="#">Erigeron petrophilus var. sierrensis</a>	northern Sierra daisy	Asteraceae	perennial rhizomatous herb	Jun-Oct	4.3	S4	G4T4
<a href="#">Eriogonum umbellatum var. ahartii</a>	Ahart's buckwheat	Polygonaceae	perennial herb	Jun-Sep	1B.2	S3	G5T3
<a href="#">Erythranthe filicifolia</a>	fern-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jun	1B.2	S2	G2
<a href="#">Erythranthe glaucescens</a>	shield-bracted monkeyflower	Phrymaceae	annual herb	Feb-Aug(Sep)	4.3	S3S4	G3G4
<a href="#">Fritillaria eastwoodiae</a>	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2	S3	G3Q
<a href="#">Lewisia cantelovii</a>	Cantelow's lewisia	Montiaceae	perennial herb	May-Oct	1B.2	S3	G3
<a href="#">Packera eurycephala var. lewisrosei</a>	Lewis Rose's ragwort	Asteraceae	perennial herb	Mar-Jul(Aug-Sep)	1B.2	S2	G4T2
<a href="#">Penstemon personatus</a>	closed-throated beardtongue	Plantaginaceae	perennial herb	Jun-Sep(Oct)	1B.2	S2	G2
<a href="#">Poa sierrae</a>	Sierra blue grass	Poaceae	perennial rhizomatous herb	Apr-Jul	1B.3	S3	G3
<a href="#">Rhynchospora capitellata</a>	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	2B.2	S1	G5
<a href="#">Sedum albomarginatum</a>	Feather River stonecrop	Crassulaceae	perennial herb	May-Jun	1B.2	S2	G2

<a href="#">Sidalcea gigantea</a>	giant checkerbloom	Malvaceae	perennial rhizomatous herb	(Jan-Jun)Jul-Oct	4.3	S3	G3
<a href="#">Streptanthus longisiliquus</a>	long-fruit jewelflower	Brassicaceae	perennial herb	Apr-Sep	4.3	S3	G3

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## **Appendix C. Response to Comments**

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