

Lower Moffett Creek Bridge Replacement Project

SISKIYOU COUNTY, CALIFORNIA

02-SIS-3-PM 38.0-38.6

EA#: 02-4G440

EFIS#: 0214000013

Initial Study with Proposed Mitigated Negative Declaration



Prepared by the
State of California, Department of Transportation
Caltrans District 2
1657 Riverside Drive, MS-30
Redding, CA 96001

June 2019



General Information about this Document

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of a proposed bridge replacement project on State Route (SR) 3, between postmiles 38.0 and 38.6, in Siskiyou County. This Initial Study was prepared to comply with the California Environmental Quality Act (CEQA). Caltrans is the lead agency under CEQA. This document describes the purpose and need for the project, project alternatives, potential environmental impacts, and proposed avoidance, minimization, and mitigation measures.

What should you do?

- Please read this Initial Study
- You are invited to review this environmental document and supporting technical studies. A printed copy of the document and technical studies can be found during business hours (Monday-Friday, 8:00 a.m. to 4:30 p.m.) at the Caltrans District Office located at 1657 Riverside Drive in Redding. In addition, a printed copy of the document can be found at the Siskiyou County Library (Monday-Thursday 12:00pm-5:00pm), located at 11960 East Street in Fort Jones. A copy of the environmental document is also available on Caltrans' website at:
<http://www.dot.ca.gov/dist3/departments/envinternet/siskiyou.htm>
- We welcome your comments. If you have any information or concerns regarding the project, please send your written comments to Caltrans by the deadline. Submit comments via postal mail to:

California Department of Transportation
Attention: Emiliano Pro
North Region Office of Environmental Management
1657 Riverside Drive, MS-30
Redding, CA 96001

- You may also submit comments via e-mail to Emiliano.Pro@dot.ca.gov
- Please submit comments by the deadline: 7/21/2019

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) undertake additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Emiliano Pro, North Region Environmental Services, 1657 Riverside Drive, MS-30, Redding, CA 96001; (530) 225-2085 Voice, or use the California Relay Service TTY number, 711 or 1-800-735-2929.
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Lower Moffett Creek Bridge Replacement Project

In Siskiyou County near Fort Jones on State Route 3

**INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE
DECLARATION**

Submitted Pursuant to: Division 13, California Public Resources Code

STATE OF CALIFORNIA
Department of Transportation

Prepared By:



Date: 6-13-19

Cabe Cornelius, Associate Environmental Planner - Redding
North Region Environmental Management
California Department of Transportation

Approved By:



Date: 6/13/19

Wes Stroud, Office Chief - Redding
North Region Environmental Management
California Department of Transportation



Proposed Mitigated Negative Declaration

Pursuant to: Division 13, California Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the Lower Moffett Creek Bridge (Br. No. 02-0042) located along State Route (SR) 3 between post miles 38.0 and 38.6 in Siskiyou County. The purpose of the project is to maintain mobility and connectivity on SR 3 near the town of Fort Jones in Siskiyou County without load restrictions. Work activities would include demolition of the existing bridge, construction of a new bridge on the current alignment, installation of new guardrails and bridge railing, reconstruction of approach pavement and shoulders to conform to the new bridge, and the improvement of road connections within the project limits. The project would require vegetation clearing, temporary construction easements, and a full detour on an adjacent county road. Construction equipment parking and material stockpiling would occur within Caltrans right-of-way. The project would require permits from the California Department of Fish and Wildlife (CDFW) 1602 permit, North Coast Regional Water Quality Control Board (NCRWQCB) 401 certification, and the U.S. Army Corps of Engineers (USACE) 404 permit.

Determination

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

The Department 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 for the following reasons:

- The proposed project would have *No Impact* to: *Agriculture and Forest Resources, Cultural Resources, Energy, Geology and Soils, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation/Traffic, Tribal Cultural Resources, Utilities and Service Systems or Wildfires.*
- The proposed project would have a *Less-Than-Significant Impact* to: *Aesthetics, Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality and Noise.*
- The proposed project will have a *Less-Than-Significant Impact with Mitigation* to: *Biological Resources and Mandatory Findings of Significance.*

Wesley Stroud
Office Chief - Redding
North Region Environmental Management
California Department of Transportation

Date

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Chapter 1. Proposed Project

Project Title

Lower Moffett Creek Bridge Replacement Project

Lead Agency Name and Address

California Department of Transportation, District 2
Office of Environmental Management
1657 Riverside Drive, MS-30
Redding, CA 96001

Contact Person and Phone Number

Emiliano Pro, Senior Environmental Planner
North Region Environmental Management
Phone: (530) 225-3174
Email: emiliano.pro@dot.ca.gov

Project Location

The project is located on State Route 3 (SR 3), from Post Mile (PM) 38.0 to 38.6, in Siskiyou County (Figures 1 and 2).

Project Sponsor's Name and Address

California Department of Transportation, District 2
1657 Riverside Drive
Redding, CA 96001

Purpose and Need

The purpose of the project is to maintain mobility and connectivity on SR 3 near the town of Fort Jones in Siskiyou County without load restrictions. The project is needed because the Lower Moffett Creek Bridge deck is showing chloride-induced corrosion which is leading to deck deterioration. In addition, the structure's bridge railing is non-standard.

Existing Facilities

The Lower Moffett Creek Bridge (No. 02-0042) was built in 1956 and consists of reinforced concrete (RC) girders on RC wall piers and RC closed-end cantilever abutments founded on spread footings. The existing two span bridge is 95.4 feet long, and its deck width is 32.7 feet with metal tube railing and no scuppers. Currently the bridge provides two 12-foot-wide travel lanes and two 4-foot-wide shoulders and is 15 feet above Moffett Creek's stream bed. The existing abutments and pier are not protected by rock slope protection (RSP).

Corrosion of the steel rebar in the deck, due to chloride contamination, has started and cannot be arrested. It was determined that full structure replacement would be most cost effective.

Project Description (Build Alternative D)

The California Department of Transportation (Caltrans) is proposing to replace the Lower Moffett Creek Bridge (Bridge No. 02-0042) on State Route (SR) 3 in Siskiyou County. Work activities would include demolition of the existing bridge, construction of a new bridge on the current alignment, installation of new guardrails and bridge railing, and the improvement of road connections within the project limits. The new bridge would be longer and wider than the existing bridge (Table 1), to meet current design standards. Construction would occur over one season and traffic would be detoured during construction to adjacent county roads. This detour route, Peach Tree Orchard Road and East Moffett Creek Road, would be used as a detour by traffic until the new bridge is complete. The contractor will be provided with an approved optional disposal site.

Table 1: Summary of Existing and Proposed Bridge Dimensions

Lower Moffett Creek Bridge	Dimensions		
	Length (feet)	Width (feet)	Piers
Existing	95'4"	32'7"	1
Proposed	100'	44'	0
Change	+5'6"	+7'3"	-1

The existing bridge would be removed and replaced with a single-span bridge approximately 100 feet long and 44 feet wide comprising of two 12-foot-wide traffic lanes and two eight-foot-wide shoulders. The new bridge would be constructed on the existing alignment and span the entirety of Moffett Creek. The existing roadway to and from the bridge would be widened to match the new bridge deck width and profile. The existing four-foot shoulders on SR 3 would be widened to conform to the eight-foot shoulders on the proposed bridge. The total of new impervious area is approximately 0.30 acres. The new bridge rail would have type ST-20S bridge rail, and new approach metal beam guard railing (MBGR) installed. The new bridge would be approximately 0.25 feet higher than the existing bridge in elevation and would have no scuppers. RSP will not be placed at the abutments.

Prior to the construction of the new bridge, traffic on SR 3 will be detoured onto Peach Orchard Road and East Moffett Creek Road within Siskiyou County. Intersections will be widened at Peach Orchard Road and East Moffett Creek Road to allow for easier entrance and exit onto the detour. Once traffic is re-routed to the detour, bridge construction would begin.

Construction equipment and material staging areas are located northwest and northeast of Abutment 2 and along the west side of SR 3, south of Abutment 1. All potential staging areas are within the State right of way (ROW).

Construction of Temporary Access Roads

Temporary access roads will be required to access work below the bridge. These proposed temporary access roads would most likely be constructed at all four corners of the existing bridge. Most construction of these temporary access roads would take place within existing disturbed upland areas. These roads would be graded, rocked or stabilized prior to any rainfall events to prevent sediment mobilization, and vehicle furrowing that could cause sediment delivery to the creek. Grading for the newly constructed temporary access roads may require

grading up to three to four feet deep to push out high spots or to fill in low spots. These roads would have an overall width of approximately 10-14 feet.

Placement of Temporary Crossing and Gravel Work Pad

Portions of the temporary access roads that continue into the channel will be rocked with clean, rounded gravel (e.g., fish rock gravel). Fabric will be placed over the gravel, and angular crushed rock will be placed on top. This method would keep the angular crushed rock separated from the clean, rounded gravel. All or part of the clean, rounded gravel may be left in the channel once work is finished as determined through the regulatory permitting process. Installation and removal of these rocks would occur in a dry streambed. Removal of all rocks would be disposed of at an appropriately permitted disposal site.

A temporary stream crossing will be required to allow equipment to cross the creek during construction and aid in the minimization of erosion and downstream sedimentation caused by equipment. After the stream is de-watered, all aquatic resources are safely relocated, and a culvert is installed, gravel installation would occur as discussed above. The culvert would be placed to one side of the center pier. The gravel work pad would be approximately 25 to 35 feet wider than the existing bridge. The gravel work pad allows the removal of the existing pier without further impacts to the creek. The contractor will prepare a temporary stream crossing plan for approval by Caltrans and regulatory agencies prior to implementation.

Installation and removal of the temporary crossing and gravel work pad will occur during the dry season between May 1 and October 31 (or as specified by the permitting resource agencies).

Removal of the existing bridge and associated bridge elements

The contractor will prepare a bridge demolition plan for approval by Caltrans. The existing bridge would likely be removed in sections from the top down. Following the removal of the bridge rail, the superstructure would be removed. Removal of the bridge superstructure typically requires saw cutting the deck into manageable sections and then removing them by an overhead crane or other vertical-lift equipment. Next, removal of the abutments and pier require breaking the abutments and pier into small, manageable concrete and rebar pieces that can be removed by an excavator or other mobile construction equipment. A hydraulic hoe ram mounted on an excavator would likely be used to break or split the abutments and pier. The hoe ram is powered by an auxiliary hydraulic system from the excavator. Lastly, removal of the abutment footings. The existing abutment footings are approximately 6.5 feet and 9.5 feet deep. Excavation to one foot below the original ground or three feet below finished grade, whichever is lower, would be required to remove the abutment footings. Pier footings would not be removed.

During bridge removal, the contractor will be required to construct a catchment device to collect all debris. The catchment device will be deployed for the duration of the demolition process.

All concrete and other debris resulting from the removal of the existing bridge will be removed from the project site and disposed properly by the contractor.

Construction of the new bridge and associated bridge elements

The new bridge will be constructed from the bottom up. The superstructure type will be precast pre-stressed (PC/PS) composite concrete box girders supported on cantilever seat abutments on 24-inch-diameter cast-in-drilled-hole (CIDH) concrete piles.

CIDH pile installation requires drilling a 24-inch diameter hole, filling the hole with bentonite clay slurry to keep the hole from caving in, setting a steel reinforce cage in the hole, and filling the hole with concrete. The concrete is placed from the bottom of hole to the top. As the concrete fills the hole, the bentonite clay slurry is displaced and collected into a closed container. Sometimes a 24-inch diameter steel casing is advanced as the hole is drilled to prevent caving in of loose alluvium soils.

For this project, 24-inch CIDH piles with a 24-inch rock socket and 32-inch permanent steel casing is proposed. Each abutment is expected to have approximately 7 piles, and each pile is approximately 46 feet long. The 24-inch CIDH is socketed into bedrock (6 feet) to carry the load from the superstructure.

Pile caps installation requires excavation and may require shoring. The top of the footing must be below the anticipated scour elevation. Sheet piles may be vibrated into the ground to be used as temporary shoring for foundation work. Footings that are below the ground water table require dewatering. Water is pumped from the excavated-shored footing area into a portable settling tank or a settling basin outside the channel in an adjacent upland area.

The new abutments will be constructed following the construction of the foundation. The new abutments would be setback approximately one-foot three inches from its existing footprints.

The deck would have a polyester concrete overlay, and type ST-20S bridge barriers modified with bicycle railing. The concrete barrier is attached to the bridge.

Water Drafting

Water drafting may be necessary for dust suppression or other construction activities (i.e., earthwork compaction operation or concrete curing). If water drafting is needed, the contractor shall provide to Caltrans copies of current applicable permits for the water drafting. Water drafting will comply with NMFS guidelines for water drafting. The contractor will prepare a water drafting plan for Caltrans' approval. At the minimum, the plan shall include the amount and the schedule of water withdrawals.

Right of Way

All bridge work and staging will take place within the Caltrans ROW and no additional permanent ROW will be required to complete the project.

Utilities

A Pacific Power electrical line (aerial/underground) as well as a Siskiyou Telephone (aerial/underground) line are present in the project vicinity but are not anticipated to be impacted. The overhead Siskiyou Telephone line crossing over the proposed Peach Orchard Road and East Moffett Creek Road detour route may need to be temporarily raised to meet minimum vertical clearance requirements while the detour is in operation.

Project Alternatives

Four project alternatives, one of which is a "no-build" alternative, were developed as potential solutions to address the purpose and need for the proposed project.

Alternative A (No Build Alternative)

This alternative does not meet the purpose and need of this project. On-going maintenance would be required to maintain the existing bridge. This strategy would result in a higher cost to the taxpayer, and greater and prolonged environmental disturbance, while only temporarily delaying replacement of the bridge.

Alternative B (New bridge on current alignment using a slide in bridge built next to existing bridge)

This alternative replaces the existing bridge with a new slide-in-bridge that is first built parallel to the existing bridge and used as a detour route. Once traffic is shifted over to the slide-in-bridge, the existing bridge deck and its supports are removed. New abutments are then built for the new bridge and once complete, the new bridge (the detour structure) is slid into its final position. This would require at least a 6-hour closure of SR 3 and traffic detoured to Peach Orchard Road and East Moffett Creek Road.

The staging area for the slide-in-bridge (construction of superstructure on temporary supports) could be constructed on either side of the existing bridge, but temporary construction easements would be needed. The temporary bridge supports, combined with the increased construction footprint area due to staging in the channel would cause a greater area of environmental impact to Moffett Creek and surrounding environment. This alternative was previously considered, however, for the above reasons has been rejected from further consideration and will not be discussed further in this document.

Alternative C (New bridge on current alignment with temporary detour bridge built next to it)

This alternative replaces the existing bridge with a new bridge built at the same location. This is facilitated by first building a temporary bridge parallel to the existing bridge, allowing SR 3 traffic to be shifted over to it during construction of the new bridge. Once construction of the new structure and roadway conform is complete, traffic would be shifted back over, and removal of the temporary bridge would be performed.

The temporary bridge would have been constructed on the upstream side of the existing bridge, requiring temporary construction easements, to avoid conflicts with the confluence of the Lower and West Moffett Creeks. This alternative would result in an increased construction area footprint to accommodate construction and operation of the temporary bridge detour and associated environmental impacts on Moffett Creek and the surrounding environment. This alternative was previously considered, however, for the above reasons has been rejected from further consideration and will not be discussed further in this document.

Alternative D (New bridge on current alignment using Peach Tree Orchard Road as a detour)

This alternative is the preferred alternative as it meets the project purpose and need, minimizes construction duration and minimizes impacts to Moffett Creek and the surrounding environment. This alternative replaces the bridge on the existing alignment without the need for an additional temporary structure in the creek channel. This is achieved by using Peach Orchard Road and East Moffett Creek Road as a detour route during construction and closing SR 3 at the bridge site allowing for a one season construction job.

Permits and Approvals

Proposed work activities within Moffett Creek would require permits from the California Department of Fish and Wildlife (1602 Streambed Alteration Agreement as well as an Incidental Take Permit), Regional Water Quality Control Board (401 Water Quality Certification), and the U.S. Army Corps of Engineers (404 Nationwide Permit).

A Water Quality Assessment (WQA) was prepared and in accordance with Caltrans standard construction specifications, the contractor would be required to submit a Stormwater Pollution Prevention Plan (SWPPP) for the proposed project. The SWPPP would be prepared in accordance with Caltrans' Storm Water Management Program and the Statewide Caltrans NPDES Permit issued by the State Water Resources Control Board. The SWPPP would identify potential sources of pollution and includes Caltrans' Best Management Practices (BMPs) that would be implemented to avoid and/or minimize potential water quality-related impacts in the proposed project vicinity.



Figure 1: Project Vicinity Map





Figure 2: Project Location Map



Chapter 2. CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included in the section following the checklist. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
See Section 3.1: Aesthetics				
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p>There is no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or a Williamson Act contract land in the project vicinity.</p> <p>Land within the project limits is not considered to be forest land or timberland.</p> <p>The proposed project would have no impact to agriculture and forest resources.</p>				
<p>III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:</p>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>See Section 3.2: Air Quality</p>				
<p>IV. BIOLOGICAL RESOURCES: Would the project:</p>				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
See Section 3.3: Biology				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Literature and record searches of the proposed project area along with field visits and contacts with multiple repositories, agencies, organizations, and Native American representatives were conducted from 2017 to 2019. The purpose of these efforts was to identify and evaluate any cultural resources that may exist within the project Area of Potential Effects (APE), and to assess any effects that the proposed project might have related to the cultural resources.</p> <p>Caltrans determined there are no cultural resources or eligible historic properties within the project limits.</p> <p>It is Caltrans' policy to avoid impacting cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in the area until a qualified archaeologist can evaluate the nature and significance of the find.</p> <p>The proposed project would have no impact to cultural resources.</p>				
VI. ENERGY: Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p>Caltrans staff completed an Energy Analysis in April of 2019 and found that project construction would primarily consume diesel and gasoline through operation of construction equipment. This represents a small demand on local and regional fuel supplies that would easily be accommodated, and this demand would cease once construction is complete. Construction-related energy consumption would be temporary and not a permanent new source of energy demand and demand for fuel would have no noticeable effect on peak or baseline demands for energy. In addition, the proposed project would not increase capacity or provide congestion relief when compared to the no-build alternative. Therefore, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy.</p> <p>The project would not obstruct a state or local plan for renewable energy or energy efficiency.</p> <p>The proposed project would have no impact to energy.</p>				

VII. GEOLOGY AND SOILS: Would the project:

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p>The project site is not located in an area that contains a known earthquake fault or that is subject to strong seismic ground shaking, seismic-related ground failure, and/or landslides.</p> <p>Following construction, all disturbed soil areas will be stabilized with erosion control measures, and erosion control materials such as straw and seed mixes will be certified weed-free.</p> <p>Soil types found in the project area are not known to be expansive.</p> <p>The project does not include the use of septic tanks and/or alternative waste water disposal systems.</p> <p>There are no known paleontological resources in the proposed project limits; the proposed project is not expected to have an impact to paleontological resources.</p> <p>The proposed project would have no impact to geology and soils.</p>				
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
See Section 3.4: Climate Change				
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
See Section 3.5: Hazards and Hazardous Materials				
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
See Section 3.6: Hydrology and Water Quality				
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>The proposed project would not physically divide an established community as it's replacing an existing bridge in its' current location.</p> <p>Land in the immediate project vicinity is rural and 5 miles East of the town of Fort Jones. The project consists of the replacement of an existing bridge; there is no conflict regarding any applicable land use plan, policy, and or regulation of an agency with jurisdiction over the project.</p> <p>There are no habitat conservation plans and/or natural community conservation plans that apply to the project site.</p> <p>The proposed project would have no impact to land use and planning.</p>				
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Project implementation would take place on and adjacent to an existing roadway and the project would not introduce new uses into the area. Furthermore, the existence of a new bridge and demolition of the old bridge would not preclude use of adjacent land for mineral extraction.</p> <p>There would be no impact to mineral resources.</p>				
XIII. NOISE: Would the project result in:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
See Section 3.7: Noise.				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING: Would the project:				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>The proposed project would result in improvements to an existing roadway and would not increase capacity of the facility. In addition, the new bridge would not result in new access to locations where access is not already provided. Therefore, the project would not result in any population growth, directly or indirectly. In addition, the proposed project does not require permanent acquisition of new right-of way and would not displace people or housing.</p>				
XV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p>The proposed project would not result in new service population and, therefore, no additional public facilities would be required.</p> <p>Caltrans would notify and coordinate with local emergency and transit authorities to ensure proper function of public services. During construction traffic would utilize a detour on Peach Tree Orchard Road and East Moffett Creek Road for approximately a 1/24th of a mile until construction of the new bridge is complete to minimize traffic delays and all local businesses and services would continue uninterrupted.</p> <p>Once construction is complete and the road is opened back up to the travelling public traffic volumes, composition and speeds would remain the same and would not impact public services.</p> <p>The proposed project would have no impact to public services.</p>				
XVI. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>The project area does not contain existing neighborhood or regional parks or other recreational facilities. Therefore, the project would not 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. The project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment and would not delay access to recreational sites located along SR 3.</p> <p>The proposed project would have no impact to recreational facilities.</p>				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>This bridge replacement project would not result in conflicts or impacts related to an applicable congestion management program, air traffic patterns, increased hazards due to a design feature, inadequate emergency access, and/or adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.</p> <p>Based on guidelines outlined in the Technical Advisory produced and provided in December 2018 by the Office of Planning and Research a travel analysis will not be required as this is a bridge replacement project and will not increase traffic or capacity.</p> <p>A short detour on an adjacent county road will handle the current traffic during construction. The detour will be conducted under signalized, one-way-reversing traffic control.</p> <p>State Route 3 is designated as a Terminal Access route for STAA trucks. It is not anticipated that traffic control for this project will alter the requirement for STAA truck route: therefore, no truck impacts are anticipated.</p> <p>Caltrans would notify and coordinate with local emergency and transit authorities to ensure proper function of public services.</p> <p>The proposed project would have no impact to transportation and traffic.</p>				
XVIII. TRIBAL CULTURAL RESOURCES: 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:				
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>There are no tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources, or in a local register or historical resources, or determined to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 within the project limits.</p> <p>Assembly Bill (AB) 52 establishes a formal consultation process for California tribes as part of the CEQA review process and equates significant impacts on “tribal cultural resources” (TCRs) with significant environmental impacts (Public Resources Code 21084.2).</p> <p>Caltrans contacted the Native American Heritage Commission (NAHC) by email letter on August 4, 2017. The NAHC responded indicating that a search of the sacred lands files for the project area failed to reveal the presence of any Native American cultural resources in the vicinity of the proposed project but also provided a listing of Native American individuals who might have knowledge related to the area. These individuals were initially contacted either by informational letter or phone on October 20, 2017 and January 29, 2019.</p> <p>No formal written requests or comments have been received from any Native American tribes that are traditionally and/or culturally affiliated with the project area pursuant to Public Resources Code section 21080.3.1.</p> <p>The proposed project would have no impact to tribal cultural resources.</p>				
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>The proposed project consists of the replacement of an existing bridge and would not result in an increase in the service population for any utilities or service systems. In addition, the project would comply with all statutes and regulations related to the disposal of solid waste generated during construction.</p> <p>The proposed project would have no impact to utilities and service systems.</p>				
<p>XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</p>				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>The project proposes to replace the current bridge with a wider bridge on the current alignment and would not impair any emergency response or evacuation plan. Caltrans would notify and coordinate with local emergency authorities to ensure proper function of public services.</p> <p>Although the project is designated as a high risk fire area according to Cal Fire online mapping (http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps) the project would not modify or add any components that may exacerbate wildfire risks, and would not change the surrounding topography which is currently annual grasses with a few scattered trees along the creek.</p> <p>The project would have no impact related to additional wildfire risk.</p>				
<p>XXI. MANDATORY FINDINGS OF SIGNIFICANCE</p>				

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Although the proposed project would have impacts to the environment it does not 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. Please see Chapter 3 and the CEQA Checklist for a detailed discussion regarding biological and cultural resources.</p> <p>The project would have a negligible contribution to any potential cumulatively considerable impacts as the project proposes to replace an existing bridge with a new single-span structure on the existing alignment, and would not increase capacity, nor introduce any additional transportation facility elements on this rural stretch of SR3. Please see Chapter 3 and the CEQA Checklist for further discussion.</p> <p>The project will have no long-term adverse impacts on human beings, either directly or indirectly. Please see Chapter 3 and the CEQA Checklist for detailed discussions related to potential impacts to the human environment.</p>				

Chapter 3. Discussion of Environmental Impacts

3.1 Aesthetics

The project site is located along a rural area on SR 3 near Fort Jones. This section of SR 3 is not designated as an Eligible State Scenic Highway.

A minor amount of vegetation, including one cottonwood tree will be removed from the project limits to allow for construction access. In accordance with Caltrans standard construction specifications, areas cleared of vegetation and riparian habitat during construction activities would be reseeded with a native grass and shrub mix for aesthetics and erosion control following construction.

The proposed project consists of the replacement of the existing bridge in the same location and would have no impact to scenic vistas, scenic resources, and would not substantially degrade the existing visual character or quality of the site and its surroundings.

The proposed project would utilize an architectural treatment of stamped concrete on the transition blocks recommended by the Visual Impact Assessment completed March 2019.

There would be a less than significant impact to aesthetics.

3.2 Air Quality

Siskiyou County, which includes the project area, is categorized as an attainment/unclassified area for all current California and National Ambient Air Quality Standards (CAAQS & NAAQS).

The proposed project would not change traffic volume, fleet mix, speed, or any other factor that would cause an increase in emissions relative to the no build alternative; therefore, this project would not cause an increase in operational emissions.

The proposed project is expected to result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM10, would be the primary short-term construction impact, which may be generated during excavation, grading, pavement grinding, and hauling activities. Both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature and would not result in long-term adverse conditions. Caltrans Standard Specifications require the awarded contractor to maintain compliance with all applicable laws and regulations related to air quality, including the Siskiyou County Air Pollution Control District regulations and local ordinances. In addition, the contractor is required to use water or dust palliatives to control fugitive dust, implement track-out reduction measures, cover or maintain adequate freeboard on all transported loads of materials, and properly maintain construction vehicles and equipment. Although the project would result in short-term construction-related emissions the proposed project would not expose sensitive receptors to substantial pollutant concentrations or create substantial objectionable odors.

The proposed project would have a less than significant impact to air quality.

3.3 Biological Resources

Caltrans staff conducted biological resources-related literature and record searches of the proposed project area including reviews of numerous databases, lists, and maps, as well as visits to and/or contacts with relevant agencies.

Biological field surveys were conducted on multiple occasions in 2017 and 2018 to assess the existing environment, gather information on the potential presence of special status species, and determine potential project level impacts with regard to biological resources.

Habitats and Natural Communities of Concern

Habitats and natural communities of special concern in the project limits include riparian habitat and Lower Moffett Creek. These habitats are protected by both federal and State laws and impacts to these resources require certifications, permits or agreements from resource agencies.

Riparian

Project Impacts

Work below the bridge would require temporary access roads. These temporary access roads would most likely be constructed at all four corners of the existing bridge down to Moffett Creek. Approximately 0.131 acres of riparian vegetation would be temporarily impacted by the construction of these temporary access roads. Riparian vegetation impacted consists of primarily grasses and Himalayan blackberry.

The new bridge abutments would be wider than the existing bridge. A cottonwood tree which functions as riparian habitat and located within the northeast quadrant of the existing bridge would be removed permanently to accommodate the wider abutment. The removal of this cottonwood tree would result in permanent impacts of approximately 0.013 acres of riparian vegetation.

Avoidance and Minimization Measures

Caltrans specifications, special provisions, and best management practices (BMPs) would be implemented. Standard specifications and special provisions include project conservation measures to be implemented for the protection of a species and/or its habitat. BMPs are implemented in all Caltrans construction projects. Caltrans may, on project basis, specify or require contractors to implement certain BMPs.

The following standard specifications, special provisions, and BMPs will be implemented for this project.

- Preserve and protect existing vegetation not to be removed.
 - Roots of felled trees and brush shall not be removed unless authorized by the Engineer.
 - Disturbance or removal of existing vegetation shall not exceed the minimum necessary to complete the project.
 - Environmental Sensitive Areas (ESA) will be called out on plan sheets to protect in place vegetation not slated for removal.
- Remove vegetation to the ground level to allow regeneration of riparian vegetation following construction.
- ESA will be shown on plans to protect in place the trees located immediately downstream and upstream of the work limits.
- Caltrans anticipates nesting or attempted nesting by migratory and nongame birds from February 1 to September 30. Tree or shrub removal is expected to occur outside of the nesting season.

- If tree or shrub cannot be removed outside of the anticipated nesting or attempted nesting period, a contractor supplied biologist will conduct a preconstruction survey no more than three days prior to the tree or shrub removal.
- If active nest(s) are located during a preconstruction survey, the contractor supplied biologist will notify the contractor and they will follow the appropriate contract specified guidelines.
- If needed during construction, as required by the CDFW, the Oregon grape, multi-flora rose, and California gooseberry bushes found within the southwest and southeast quadrants of the existing bridge will be protected in place and/or if needed during construction can be transplanted or replanted within the Caltrans ROW rather than disposing of them.

Mitigation

For the proposed 0.013 acres of permanent impacts to riparian vegetation, Caltrans will offset the impacts or loss by offsite in-kind mitigation or other type of mitigation strategy identified by the CDFW during the notification or permit process. Temporary loss of riparian habitat is expected to naturally re-establish.

With the implementation of the above discussed avoidance, minimization, and mitigation measures, impacts from the proposed project would not have a substantial adverse effect, either directly or indirectly, on the riparian habitat on a local or regional level and have been determined to be less than significant.

Waters/Riverine Habitat

Project Impacts

Removal of the existing pier would require the placement of a temporary stream crossing and a gravel work pad in Moffett Creek. The placement of the temporary stream crossing and gravel work pad would require a portion of Moffett Creek within the project limits to be dewatered. Temporary stream diversion would be required prior to the dewatering. Dewatering activities will occur directly below and approximately 40 feet upstream and downstream of the existing bridge. Dewatering activities would temporarily impact approximately 141 linear feet and approximately 0.061 acres of the active channel. However, the removal of the existing pier will provide an additional 0.0012 acres of open water habitat in the project limits.

The contractor will provide a dewatering plan prior to construction. The plan will be approved by the Caltrans Resident Engineer and regulatory agencies.

Avoidance and Minimization Measures

The following standard specifications, special provisions, and BMPs would be implemented for this project.

- Equipment storage, materials staging, and stockpiling shall only occur in designated construction staging areas located at least 100 feet away from Ordinary High-Water Mark (OHWM) of Lower Moffett Creek.
- Work within the drainage channel below the OHWM may occur from May 15 to October 31 of any year, when the creek is in low flow conditions.
- The National Weather Service's (NWS) forecast will be monitored daily. If the NWS predicts a storm event in the project area with at least a 50 percent probability of precipitation within 72 hours for construction activities, work will not begin or will be stopped immediately in the drainage channel.
- The contractor will submit a dewatering and discharge work plan to the Engineer for approval by the regulatory agencies (i.e., CDFW and NMFS).

- The contractor will prevent the discharge of concrete and asphalt concrete waste from entering receiving waters.
- The contractor will prevent job-site liquid waste from entering receiving waters.
- Fueling and maintenance on vehicles and equipment must be performed off site by the contractor. If fueling or maintenance of vehicles and equipment must be performed at the job site, the activities must be performed on level ground and 50 feet from receiving waters.
- The contractor will place drip pans, plastic sheeting, and/or absorbent pads under vehicles and equipment used on surfaces over water. Keep enough spill-clean up material with the vehicles and equipment to handle potential spills.
- The contractor will not allow materials generated during structures demolition to enter receiving waters. They will attach devices on equipment to catch debris during demolition activities.
- The contractor will submit a Temporary Creek Diversion System (TCDS) Plan to the Engineer for approval by regulatory agencies (i.e., CDFW and NMFS).
- Construction use and removal, of the TCDS is restricted to the time frame of May 15 to October 31. Construction of the TCDS must occur during daylight hours. If work cannot be completed during the period of May 15 to October 31, remove the TCDS, restore the creek to original flow condition, and reconstruct the TCDS after or on May 15 of the following year. No work is allowed within the flowing waters except during the restricted time frame.
- The contractor will monitor and maintain the TCDS.
- When no longer required, the contractor will remove all components of the TCDS and return the creek bed and banks to the original condition.

Mitigation

Because the proposed project would remove the existing pier located within Moffett Creek and would result in a net gain of 0.0012 acres of waters, mitigation related to open waters is not required.

The proposed project would have a less than significant impact to waters.

Threatened and Endangered Species

Wildlife

Based on resource databases query results, no federal candidate or state candidate, threatened, or endangered wildlife species are known to occur in the project limits except for the federal and state threatened Southern Oregon Northern California Coast (SONCC) Coho salmon and the federal candidate and state candidate endangered Upper Klamath-Trinity Rivers (UKTR) Spring-Run Chinook salmon (Table 2).

Southern Oregon Northern California Coast (SONCC) Coho Salmon

SONCC coho salmon were listed as a threatened species on May 6, 1997 by the National Marine Fisheries Service (NMFS). On May 5, 1999, NMFS designated the species critical habitat. Designated critical habitat includes all river reaches accessible to listed coho salmon between Cape Blanco, Oregon and Punta Gorda, California. In 2005, NMFS reaffirmed SONCC coho salmon status as a threatened species. On March 30, 2005 the CDFW determined that the SONCC coho salmon should be listed as a threatened species, and the determination to list the species as threatened was finalized on March 30, 2005.

The Project is located within Coho salmon boundary and their designated critical habitat.

Project Impacts

As mentioned above, the placement of a temporary stream crossing and a gravel work pad in Moffett Creek would require Moffett Creek to be dewatered, and dewatering would require the stream to be temporarily diverted. Stream diversion and dewatering activities are expected to generate a localized and short duration of sediment and turbidity. Although the duration and risk of exposure to sediment and turbidity is small, SONCC coho salmon may still encounter unfavorable habitat conditions and/or exhibit a behavior or a physical change. An unfavorable habitat condition includes, but is not limited to, reduced oxygen-rich water running through gravels. Behavioral changes may include, but are not limited to, sudden reactions to sediment plumes, vacating preferred habitat, or reduced feeding rates. Physical changes may include, but are not limited to, reduced growth, damaged tissue, or death.

Proposed dewatering activities will occur at a time when SONNC coho salmon are least expected in the project limits, which is before any adults have immigrated and after most smolts have emigrated. The adults are expected to travel through the project area later in November, and the juveniles are expected to leave the project area before June to begin migration to the Scott River. The adults are not expected to remain in the project limits to spawn as the area lacks the spawning habitat. Juvenile SONNC coho salmon may be present in the project limits during dewatering activities, because a few stragglers are expected to remain. However, no fish mortality is expected from project related turbidity or suspended sediment.

Avoidance Measures

Federal Consultation with NMFS has been completed using the Programmatic Biological Opinion (PBO), dated October 18, 2013. The project will implement the Terms and Conditions provided in the PBO to minimize the amount or extent of incidental take of the threatened SONCC Coho salmon.

The project will also implement the Terms and Conditions provided in an Incidental Take Permit (ITP) required from CDFW that will also be obtained during the permitting phase.

Several "Project Actions" listed in the PBO will be implemented to construct the project. Each "Project Action" contains Additional BMPs (ABMPs) that will be implemented during construction in addition to Caltrans' standard maintenance and construction site BMPs to reduce the potential for harm to threatened SONCC Coho salmon. Refer to the Lower Moffett Creek Bridge Replacement Project's Administrative File for the list of "Project Actions" that will occur and applicable ABMPs that will be implemented, as required by the NMFS PBO. This document will be available during the review period, at the Redding Caltrans District Office previously discussed.

Mitigation

Dewatering activities would require Moffett Creek to be de-fished with the employment of fish capture and relocation efforts. Fish capture and relocation efforts would take place prior to stream diversion and prior to the dewatering of the work area. No area would be diverted or dewatered prior to May 15 and would take place during daylight hours. Fish capture and relocation attempts are expected to occur and would be conducted by qualified fisheries biologists following both CDFW and NMFS guidelines.

Fish relocation efforts are expected to minimize project impacts to SONNC coho salmon by removing them from the diverted and dewatered areas where they may have experienced high rates of death or injury. Fish will be relocated to areas that possess similar habitat and water quality parameters (e.g., temperature) to their original locations and will be distributed appropriately to prevent overcrowding. Fish at relocation sites are expected to disperse to areas either upstream or downstream that have greater availability of habitat and less competition. Because very few fish are expected to be relocated from the project limits, overcrowding is not expected.

No SONNC coho salmon are expected to be killed from dewatering activities due to the low numbers of juveniles expected to be present, if any at all, in the project limits. If present, it is expected that fish would have been relocated prior to the placement of the temporary stream crossing and gravel work pad. Additionally, a fisheries biologist will remain onsite to net and rescue any additional fish that may become stranded throughout the dewatering process.

Fish passage will be temporarily blocked when block nets are in place during fish capture and relocation activities. The effects on fish passage are expected to be minimal as they will be over small areas (approximately 292 linear feet) and a short time period (approximately one day). Installation of block nets will have minimal disruption to the stream bed, and the addition of rocks to seal the bottom edge of the net to the streambed will be spread out after the nets are removed. Adult Coho salmon are not expected to be present during dewatering activities. Therefore, incidences of decreased fish passage resulting from the dewatering activities are not expected to reduce the fitness of individual SONNC coho salmon or function of critical habitat.

Additionally, coordination between Caltrans and CDFW has identified potential restoration projects that would further mitigate the effect of Coho salmon. The specific restoration project will be identified within the Incidental Take Permit (ITP); however, possible restoration projects in the Scott River watershed, include but are not limited to, restoration projects in French, Patten, and Moffett creeks. The potential restoration activities within these creeks, include but are not limited to, installation of livestock fencing, installation of beaver dam analogues, large wood augmentation for fish habitat, instream floodplain and riparian improvement, and restoration of riparian vegetation. Another possible mitigation option would be to install a stream gage on Moffett Creek. A previous United States Geological Survey (USGS) stream gage existed on Moffett from 1959 – 1967. The installation of a new stream gage would be beneficial to the long-term restoration of Moffett Creek. Caltrans contractor would install the gage and then transfer ownership, maintenance, and data collection to CDFW, or another willing agency such as the USGS.

Upper Klamath-Trinity Rivers (UKTR) Chinook Salmon

UKTR Chinook salmon includes all Klamath basin populations from the Trinity River and the Klamath River upstream from the confluence with the Trinity River. The UKTR Chinook salmon population is composed of both fall and spring-run types. The spring-run type has been declared a federal candidate threatened or endangered on April 30, 2018 and a state candidate endangered species on February 6, 2019. Only fall-run type has the potential to be found in the stream reaches within the project limits.

Project Impacts

Based on professional contacts and published literature, the project does not have the potential to impact individual UKTR Spring-Run Chinook salmon. The project, however, has the potential to impact individual UKTR fall-run Chinook salmon and EFH habitat for both the UKTR Fall and spring-run Chinook salmon.

Project impacts discussed for SONCC Coho salmon are same for the UKTR Chinook salmon. Refer to the SONNC coho salmon's impacts section for the UKTR.

Avoidance Measures

Avoidance measures discussed for SONCC Coho salmon are same for the UKTR Chinook salmon. Refer to the SONNC coho salmon's avoidance measure section for the UKTR.

Mitigation

Mitigation discussed for SONCC Coho salmon are same for the UKTR Chinook salmon. Refer to the SONNC coho salmon's mitigation section for the UKTR.

Table 2*. Federal and State Threatened and Endangered Species – Wildlife

Scientific Name	Common Name	Legal Status Federal/State	Habitat Present	Potential for Species Presence	Impact and Rationale
<i>Pekania penanti</i>	Fisher – West Coast DPS	--/T	NO	NO	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is along SR 3, approximately 3 miles north of the project limits. The adult male fisher was observed as a roadkill. Therefore, the species will not be impacted by the proposed project.
<i>Rana boylei</i>	Foothill yellow-legged frog	--/CT	NO	NO	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, because substrates in Moffett Creek consist mostly of fine sand and gravel with little to no boulders or bedrock, presence of the species is unlikely. The closest documented occurrence is along Yreka Creek near Canann Gulch, southwest of Yreka. The species was not observed during field surveys. Therefore, the species will not be impacted by the proposed project.
<i>Riparia riparia</i>	Bank swallow	--/T	NO	NO	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is about 7 miles south of the project limits, north of Eller Lane Bridge within the Scott River. Therefore, the species will not be impacted by the proposed project.
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	E/--	NO	NO	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	T/--	NO	NO	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Canis lupus</i>	gray wolf	E/E	NO	NO	Although the project limits fall within the species' distribution range,

					suitable habitat is not present in the ESL. No documented occurrences are near the project limits. Therefore, the species will not be impacted by the proposed project.
<i>Chasmistes brevirostris</i>	shortnose sucker	E/E	NO	NO	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	T/E	NO	NO	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Deltistes luxatus</i>	Lost River sucker	E/E	NO	NO	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	E/--	NO	NO	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Oncorhynchus kisutch pop. 2</i>	Coho salmon - southern Oregon / northern California ESU	T/T	YES	YES	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, and if any, presence of the species would be limited to seasonal movement, because Moffett Creek can become disconnected from the Scott River at the mouth, preventing fish from entering Moffett Creek from Scott River. The species was not observed during field surveys.
<i>Oncorhynchus tshawytscha pop. 30</i>	chinook salmon - upper Klamath and Trinity Rivers ESU	CE/P	YES	YES	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, and if any, presence of the species would be limited to seasonal movement, because Moffett Creek can become disconnected from the Scott River at the mouth, preventing fish from entering Moffett Creek from Scott River. The species was not observed during field surveys.
<i>Rana pretiosa</i>	Oregon spotted frog	T/--	NO	NO	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the

					species will not be affected or impacted by the proposed project.
<i>Strix occidentalis caurina</i>	northern spotted owl	T/T	NO	NO	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. A closest documented occurrence is a negative observation that is approximately 0.50 mile east of the project limits. Therefore, the species will not be impacted by the proposed project.

*This table is a subset of the Regional Species Tables in Appendix C.

Federal -- = No Status CE = Candidate Endangered E = Endangered T = Threatened	State -- = No Status E = Endangered CT = Candidate Threatened T = Threatened
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Plants

Based on resource databases query results, no federal or state candidate, threatened, or endangered plant species are known to occur in the project limits (Table 3).

Floristic surveys conducted for the proposed project confirmed that the project limits do not contain federal or state candidate, threatened, or endangered plant species. The project will have no effect on federal or on State candidate, threatened, or endangered plant species.

Table 3*. Federal and State Threatened and Endangered Species-Plants

Scientific Name	Common Name	Legal Status Federal/State	Habitat Present	Potential for Species Presence	Impact and Rationale
<i>Calochortus persistens</i>	Siskiyou mariposa-lily	--/R	NO	NO	The Environmental Study Limits (ESL) is outside the species' known range, and suitable habitat is not present. The species is not expected to be found within the ESL.
<i>Euphorbia hooveri</i>	Hoover's spurge	T/--	NO	NO	The ESL is outside the species' known range, and suitable habitat is not present. The species is only found in Butte, Tehama, and Tulare Counties. Therefore, the species is not expected to be found within the ESL.
<i>Fritillaria gentneri</i>	Gentner's fritillary	E/--	NO	NO	The ESL is outside the species' known range, and suitable habitat is not present. The species is not expected to be found within the ESL.

<i>Lomatium peckianum</i>	Peck's lomatium	T/E	NO	NO	Project limits are outside the species' elevation range, and suitable habitat is not present. The species will not be affected by the project.
<i>Phlox hirsuta</i>	Yreka phlox	E/E	NO	NO	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, the species was not observed during field surveys, and no known observations have been reported near the ESL.
*This table is a subset of the Regional Species Tables in Appendix C.					
Federal -- = No Status E = Endangered T = Threatened			State -- = No Status E = Endangered R = Rare		

Special Status Plant Species

Wildlife

Based on database queries and species distribution ranges, 14 special status wildlife species had the potential to occur within the ESL, and no reported migratory birds. A comprehensive evaluation of each special status species' potential to occur in the ESL is included in Appendix C. After further evaluation, the ESL supports potential suitable habitat for only two of the 14 special status wildlife species. These two species merit further discussion based on their potential for occurrence in the ESL. The two special status wildlife species are the federal and state threatened SONCC coho salmon and the federal candidate and state candidate endangered UKTR Spring-Run Chinook salmon. Discussion of these species is in the Threatened and Endangered Species Section.

Plant

Based on database queries and species elevation requirements, 21 special-status plant species had the potential to occur within the project limits. After further evaluation, only two of the 21 special status plant species have been identified as having the potential to occur in the project limits, including federal or state candidate, threatened, or endangered species (Appendix C). These two special status plant species are Shasta chaenactis (*Chaenactis suffrutescens*) and Scott Valley phacelia (*Phacelia greenei*).

Floristic surveys were conducted within the ESL during the blooming periods of the flowers in accordance to CNPS Botanical Survey Guidelines. No special-status plant species were observed within the project limits. Therefore, project-related soil disturbance is not anticipated to affect botanical resources significantly beyond the existing disturbance regime.

Invasive Species

Nine species included on the State-listed Noxious Weeds List and the California Invasive Species Advisory Committee (CISAC) 2010 list of invasive species were encountered during field surveys: yellow starthistle, Canada thistle, bull thistle, Dyer's woad, perennial pepperweed, Russian thistle, black mustard, downy brome, and Himalayan blackberry

Project Impacts

Equipment entering the worksite and vegetation clearing activities could introduce or spread invasive species. These activities are not anticipated to contribute to the increasing number of invasive species beyond what is presently within the project limits. Because work will be confined within the project limits, and Caltrans standard specifications, special provisions, and BMPs will be implemented during construction to further prevent the spread of invasive species.

Avoidance and Minimization Efforts

- Disturbance or removal of existing vegetation shall not exceed the minimum necessary to complete the project.
- Clean or wash vehicles and equipment before entering and leaving the job site.
- Following construction, all disturbed soil areas will be stabilized with erosion control measures, and erosion control materials such as straw and seed mixes will be certified weed-free.
- Plans will show plant species that will be used for erosion control. They will consist of native species or non-persistent hybrids that will prevent invasive species from colonizing disturbed areas.
- Straw must be certified weed free under the Department of Food and Agriculture. Straw must be free of plastic, glass, metal, rocks, and refuse or other deleterious material.
- Seed must not contain:
 - Prohibited noxious weed seed
 - More than 1.0 percent total weed seed by weight

Mitigation

No mitigation is proposed for this species.

Migratory Bird Treaty Act (MBTA)

Based on data queries, a list of potential migratory birds is not available. However, field surveys identified vegetation (i.e., trees or shrubs) within the project limits to have the potential for use by migratory birds. The existing habitat near SR 3 consists of trees that have no structural attributes to support raptors (e.g., eagle or osprey). No bird nests were observed.

Project Impacts

Vegetation removal during the migratory bird nesting season could cause impacts to nesting birds or their young. Noise generated during work activities could also disturb nesting birds or their young.

Avoidance and Minimization Measures

Vegetation removal is not anticipated to have a negative effect on migratory birds because the vegetation removal will take place outside of the bird breeding season, between October 1 and January 31. As a standard practice, if vegetation removal must be removed during the nesting season, a qualified biologist must conduct a preconstruction survey for nests no more than 3 days prior to the vegetation removal.

Mitigation

No mitigation is proposed for MBTA species.

3.4 Climate Change

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

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and difluoroethane (HFC-152a).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation.¹ In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of GHG emissions.² The dominant GHG emitted is CO₂, mostly from fossil fuel combustion.

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).

Regulatory Setting

This section outlines state and federal efforts to comprehensively reduce GHG 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

¹ <https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014>

² <https://www.arb.ca.gov/cc/inventory/data/data.htm>

vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices.³

This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— “the triple bottom line of sustainability.”⁴ 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. Addressing these factors up front in the planning process will assist in decision-making and improve efficiency at the program level and will inform the analysis and stewardship needs of project-level decision-making.

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 Energy Policy Act of 1992 (EPACT92, 102nd Congress H.R.776.ENR): With this act, Congress set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. EPACT92 consists of 27 titles detailing various measures designed to lessen the nation's dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light-duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the Program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

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

Energy Policy and Conservation Action of 1975 and Corporate Average Fuel Standards (42 USC Section 6201) and Corporate Average Fuel 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 Corporate Average Fuel Economy (CAFE) program based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

³ <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

⁴ <https://www.sustainablehighways.dot.gov/overview.aspx>

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.

U.S. EPA, in conjunction with the National Highway Traffic Safety Administration (NHTSA), issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010⁵ and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards required these vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules' long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which NHTSA, EPA, and ARB will decide on CAFE and GHG emissions standard stringency for model years 2022–2025. NHTSA has not formally adopted standards for model years 2022 through 2025. However, the EPA finalized its mid-term review in January 2017, affirming that the target fleet average of at least 54.5 miles per gallon by 2025 was appropriate. In March 2017, President Trump ordered EPA to reopen the review and reconsider the mileage target.⁶

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 CO₂ emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

State

With the passage of legislation including State Senate and Assembly bills and executive orders, California has been innovative and proactive in addressing GHG emissions and climate change.

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

Executive Order S-3-05 (June 1, 2005): The goal of this executive order (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 32 in 2006 and SB 32 in 2016.

⁵ <https://one.nhtsa.gov/Laws-&-Regulations/CAFE-%E2%80%93-Fuel-Economy>

⁶ <https://www.federalregister.gov/documents/2017/03/22/2017-05316/notice-of-intention-to-reconsider-the-final-determination-of-the-mid-term-evaluation-of-greenhouse>

Assembly Bill 32 (AB 32), Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” 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 Section 38551(b)). 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.

Executive Order 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.

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

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires 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.

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

Executive Order 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.

Executive Order 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 (MMTCO₂e). 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.

Senate Bill 32 (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.

Environmental Setting

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 ([AB 32](#)), which created a comprehensive, multi-year program to reduce GHG emissions in California. 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. The Scoping Plan was first approved by ARB in 2008 and must be updated every 5 years. 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. As part of its supporting documentation for the updated Scoping Plan, ARB released the GHG inventory for California.⁷ ARB is responsible for maintaining and updating California's GHG Inventory per H&SC Section 39607.4. The associated forecast/projection is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

An emissions projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided in Figure ## represent a business-as-usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists ARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO₂e.⁸ The [2018 edition of the GHG emissions inventory](#) found total California emissions of 429 MMTCO₂e for 2016.

The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 MMTCO₂e total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 MMTCO₂e.

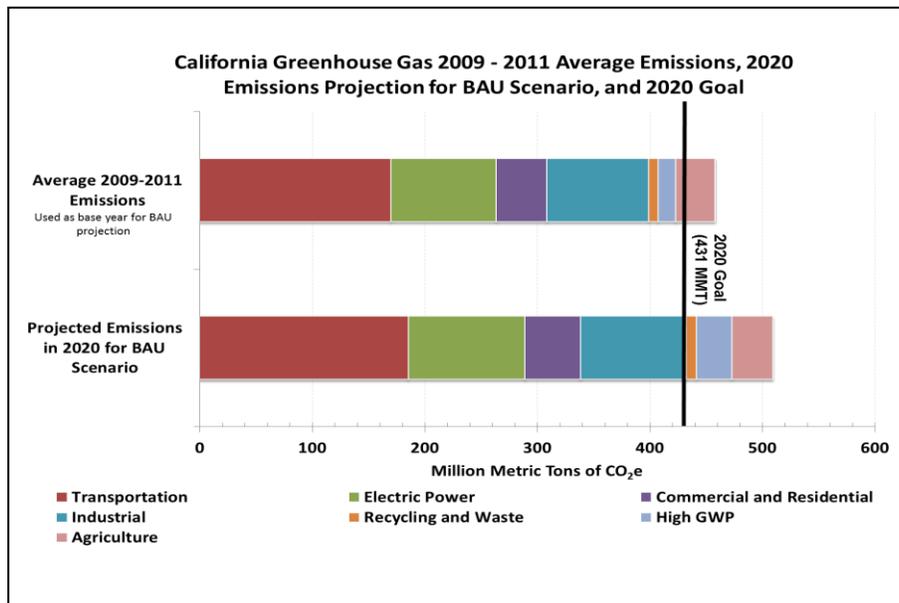


Figure 3: California Greenhouse Gas Forecast

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

⁸ The revised target using Global Warming Potentials (GWP) from the IPCC Fourth Assessment Report (AR4)

Project Analysis

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.⁹ In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

GHG emissions for transportation projects can be divided into those produced during operations and those produced during construction. The following represents a best faith effort to describe the potential GHG emissions related to the proposed project.

Operational Emissions

The project purpose is to replace the structurally deficient Moffett Creek Bridge to maintain mobility and safety on SR 3. The proposed project would not increase roadway capacity or vehicle miles traveled (VMT). While construction emissions would be unavoidable, no increase in operational emissions is expected.

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.

The CAL-CET2018 (1.1) was used to estimate average carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and hydrofluorocarbons (HFCs) emissions from construction activities. Calculated together as carbon dioxide equivalent (CO₂e), GHG emissions produced during construction are estimated to total approximately 180 metric tons for the 107 working days of construction.

The project will include measures to minimize construction GHG emissions. Caltrans 2018 Standard Specifications Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including the Siskiyou County Air Pollution Control District regulations and local ordinances. The contractor will also comply with Title 13 of the California Code of Regulations, which includes idling restrictions of construction vehicles and equipment to no more than 5 minutes. Caltrans 2018 Standard Specification 7-1.02C "Emissions Reduction" ensures that construction activities adhere to the most recent emissions reduction regulations mandated by the California Air Resource Board. The project would utilize a traffic management plan to minimize vehicle delays, and to the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

⁹ This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: *The CEQA Guide*, April 2011) and the US Forest Service (*Climate Change Considerations in Project Level NEPA Analysis*, July 13, 2009).

CEQA Conclusion

Because the proposed project does not increase roadway capacity or VMT, no long-term increase in operational GHG emissions is anticipated. Construction emissions would be minimal, and further reduced by implementing Caltrans Standard Specifications and complying with construction best management practices and all air district rules, regulations, and ordinances for air quality. Accordingly, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for reducing the emissions of greenhouse gas. Therefore, the impact would be less than significant.

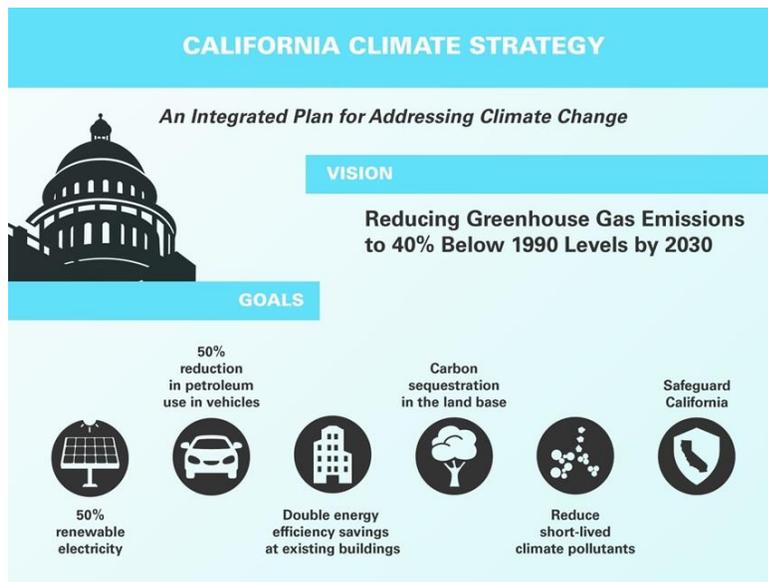
Although GHGs from the proposed project would have a less-than-significant impact on the environment, Caltrans is firmly committed to implementing measures to help further reduce GHG emissions. These measures and strategies are outlined in the following section.

Greenhouse Gas Reduction Strategies

STATEWIDE EFFORTS

To further the vision of California’s GHG reduction targets outlined in AB 32 and SB 32, Governor Brown identified key climate change strategy pillars (concepts). These pillars highlight the idea that several major areas of the California economy will need to reduce emissions to meet the 2030 GHG emissions target. These pillars are (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 farm and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state’s climate adaptation strategy, *Safeguarding California*.

Figure 4: The Governor’s Climate Change Pillars: 2030 Greenhouse Gas Reduction Goals



The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. One of [Governor Brown's key pillars](#) sets the ambitious goal of reducing today's petroleum use in cars and trucks by up to 50 percent by 2030.

Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon. These lands can remove carbon dioxide from the atmosphere through biological processes, and to then sequester 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 a new 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. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal transportation system. It serves as an umbrella document for all of the other statewide transportation planning documents.

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 GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG 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 per capita
- 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 funding and technical assistance programs that have GHG reduction benefits. These include the Bicycle Transportation Program, Safe Routes to School, Transportation Enhancement Funds, and Transit Planning Grants. A more extensive description of these programs can be found in [Caltrans Activities to Address Climate Change](#) (2013).

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 activities undertaken by Caltrans statewide 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.

- According to Caltrans Standard Specifications, the contractor must comply with all of the Siskiyou County Air Pollution Control District rules, ordinances, and regulations regarding air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.
- Landscaping reduces surface warming, and through photosynthesis, decreases CO₂. The project includes replanting in areas cleared by construction activities. This replanting would help offset any potential CO₂ emissions increase.

Adaptation Strategies

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

FEDERAL EFFORTS

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the CEQ, the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011¹⁰, outlining the federal government's progress in expanding and strengthening the nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provided an update on actions in key areas of federal adaptation, including building resilience in local communities,

¹⁰ <https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/resilience>

safeguarding critical natural resources such as fresh water, and providing accessible climate information and tools to help decision-makers manage climate risks.

The federal Department of Transportation issued *U.S. DOT Policy Statement on Climate Adaptation* in June 2011, committing 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.”¹¹

To further the DOT Policy Statement, on December 15, 2014, FHWA issued order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*).¹² This directive established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. The FHWA will work to integrate consideration of these risks into its planning, operations, policies, and programs to promote preparedness and resilience; safeguard federal investments; and ensure the safety, reliability, and sustainability of the nation’s transportation systems.

FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels.¹³

STATE EFFORTS

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed several state agencies to address California’s vulnerability to sea-level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea-level rise and directed all state agencies planning to construct projects in areas vulnerable to future sea-level rise to consider a range of sea-level rise scenarios for the years 2050 and 2100, assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea-level rise. Sea-level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high-water levels, and storm surge and storm wave data.

Governor Schwarzenegger also requested the National Academy of Sciences to prepare an assessment report to recommend how California should plan for future sea-level rise. The final report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington* (Sea-Level Rise Assessment Report)¹⁴ was released in June 2012 and included relative sea-level rise projections for the three states, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates; and the range of uncertainty in selected sea-level rise projections. It provided a synthesis of existing information on projected sea-level rise impacts to state infrastructure (such as roads, public facilities, and beaches), natural areas, and coastal and marine ecosystems; and a discussion of future research needs regarding sea-level rise.

In response to EO S-13-08, the California Natural Resources Agency (Resources Agency), in coordination with local, regional, state, federal, and public and private entities, developed *The California*

¹¹ https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm

¹² <https://www.fhwa.dot.gov/legregs/directives/orders/5520.cfm>

¹³ <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

¹⁴ *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: http://www.nap.edu/catalog.php?record_id=13389.

Climate Adaptation Strategy (Dec 2009),¹⁵ which summarized the best available science on climate change impacts to California, assessed California's vulnerability to the identified impacts, and outlined solutions that can be implemented within and across state agencies to promote resiliency. The adaptation strategy was updated and rebranded in 2014 as Safeguarding California: Reducing Climate Risk (Safeguarding California Plan).

Governor Jerry Brown enhanced the overall adaptation planning effort by signing EO B-30-15 in April 2015, requiring state agencies to factor climate change into all planning and investment decisions. In March 2016, sector-specific Implementation Action Plans that demonstrate how state agencies are implementing EO B-30-15 were added to the Safeguarding California Plan. This effort represents a multi-agency, cross-sector approach to addressing adaptation to climate change-related events statewide.

EO S-13-08 also gave rise to the State of California Sea-Level Rise Interim Guidance Document (SLR Guidance), produced by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), of which Caltrans is a member. First published in 2010, the document provided “guidance for incorporating sea-level rise (SLR) projections into planning and decision making for projects in California,” specifically, “information and recommendations to enhance consistency across agencies in their development of approaches to SLR.”¹⁶

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is actively engaged in working toward identifying these risks throughout the state and will work to incorporate this information into all planning and investment decisions as directed in EO B-30-15.

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.

Moffett Creek drains an area of 78 square miles. The project location is within a FEMA Zone A floodplain, corresponding to the 1-percent annual chance (100-year) floodplain with no base flood elevation determined. Winter rainfall occasionally causes flooding in the project area, but to date, Caltrans' bridge inspection records show no history of bridge overtopping. The project floodplain analysis found that the current bridge has 1.0 foot of freeboard (distance from water surface to bottom of bridge) under 100-year storm conditions. Analysis of the conditions with the proposed project showed that the proposed bridge replacement would provide 1.6 feet of freeboard under 100-year design storm conditions, and 2 feet of freeboard for the 50-year design storm, which would allow flood flows plus debris to pass under the bridge. Two 18-inch culverts will be replaced with 24-inch culverts to improve stormwater surface drainage. However, modeling indicates the intersection of SR 3 and Peach Orchard Road would be flooded under 50-year and 100-year design storms. The District 2 Climate Change Vulnerability Assessment indicates a less than 5% change in 100-year storm precipitation depth in the project area in 2085 under a business-as-usual GHG emissions scenario. Accordingly, the proposed project as designed would accommodate flood flows that could occur under future heavier rainfall resulting from climate change.

¹⁵ <http://www.climatechange.ca.gov/adaptation/strategy/index.html>

¹⁶ <http://www.opc.ca.gov/2013/04/update-to-the-sea-level-rise-guidance-document/>

3.5 Hazards and Hazardous Materials

Caltrans staff completed an Initial Site Assessment (ISA) in 2014 that identified the potential for minor hazardous waste/material issues within the project site; Asbestos Containing Material (ACM), Treated Wood Waste (TWW), Lead Containing Paint (LCP) related to thermoplastic and/or paint striping removal, Aerially Deposited Lead (ADL) and Naturally Occurring Asbestos (NOA).

Asbestos Containing Material (ACM) may be present in shims, joints, and/or bearing plates of the bridge. If ACM is present it would be treated in accordance with the Caltrans Standard Specifications, including requiring the contractor be notified as to the presence of suspected ACM. ACM removal must be conducted by a licensed and certified asbestos abatement contractor.

Treated wood is present within the project limits in the form of Metal Beam Guard Rail (MBGR) and sign posts. If Treated Wood Waste (TWW) is generated during this project, the storage and disposal would be in accordance with Caltrans Standard Specifications.

In accordance with Caltrans Standard Specifications, a Lead Compliance Plan (LCP) would be prepared and implemented to address appropriate lead removal related to LCP and Aerially ADL, including temporary storage, testing, and transportation to an appropriate disposal or recycling facility.

Soil samples taken in the project limits indicate a varied low-level to non-detect presence of Naturally Occurring Asbestos (NOA). Since NOA at Lower Moffett Creek Bridge was detected in a few samples at or greater than 1% asbestos threshold, excess material will need to be disposed of at an appropriately-permitted landfill or at a state-owned site.

The project is not near an existing or proposed school, or public or private airport and/or airstrip.

The project would not interfere with an emergency response plan and/or emergency evacuation plan or expose people or structures to wildland fire-related hazards.

The proposed project would have a less than significant impact related to hazards and hazardous materials.

3.6 Hydrology and Water Quality

For this project, increased turbidity is a realistic short-term impact that may occur when performing instream work. This includes installing the gravel work pad and removing a gravel bar from the channel. It could also occur while removing the old structure abutments. Instream channel work will occur after May 15th and is expected to have a less than significant impact to turbidity.

Accidental spills and leaks from heavy equipment, electricity generators, and vehicles have potential to occur during construction. Leaks and spills would result in fuels, lubricants, and other chemicals being released. Providing adequate containment for stationary equipment and maintaining leak free mobile equipment would reduce the potential for fuel and lubricant-related pollutant discharges.

A Water Quality Assessment (WQA) was prepared and in accordance with Caltrans standard construction specifications, the contractor would be required to submit a Stormwater Pollution Prevention Plan (SWPPP) for the proposed project. The SWPPP would be prepared in accordance with Caltrans' Storm Water Management Program and the Statewide Caltrans NPDES Permit issued by the State Water Resources Control Board. The SWPPP would identify potential sources of pollution

and includes Caltrans' Best Management Practices (BMPs) that would be implemented to avoid and/or minimize potential water quality-related impacts in the proposed project vicinity.

The impervious surface estimated for this project is well below the one-acre threshold required for implementing treatment BMPs required by the Statewide NPDES Permit. However, since the impervious surface will be slightly increased it should be expected that treatment BMPs will be required by the North Coast Regional Water Quality Control Board (NCRWQCB) as a condition for issuing the 401 Water Quality Certification.

The project consists of the replacement of the existing bridge, and would not impact groundwater supplies, alter existing drainage patterns, create additional runoff water, or otherwise degrade water quality.

The bridge will be replaced on the same alignment of the existing bridge. The new bridge will have a higher soffit elevation and longer span between abutments, keeping the abutments out of the channel.

The project site is not located in an area subject to potential inundation by a seiche, tsunami, or mudflow.

The proposed project would have a less than significant impact related to hydrology and water quality.

3.7 Noise

Once complete, operation of the improved roadway would not result in increases in noise levels above existing conditions. The project would not increase roadway capacity or involve the introduction of additional noise-producing activities. The project area is rural and has few receptors present.

Construction noise would be temporary and intermittent. Construction of the new bridge structure would require work that would result in minor groundborne vibration and noise. However, due to the rural nature of the project area, the project would not result in substantial temporary or periodic increases in ambient noise levels and would not result in the exposure of persons to, or generation of, excessive groundbourne vibration or noise levels.

The project site is not located near a public or private airport and/or airstrip.

The proposed project would have a less than significant impact related to noise and vibration.

Chapter 4. List of Preparers

This Initial Study was prepared by the California Department of Transportation, North Region Office of Environmental Management, with input from the following staff:

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Cabe Cornelius, Environmental Coordinator
Contribution: Document writer

Chelsea Tran-Wong, Project Biologist
Contribution: Natural Environment Study

Chris Brace, Bridge Construction Engineer
Contribution: Construction Methods

Dave Demar, Project Archaeologist
Contribution: Cultural resource surveys and reports

Emiliano Pro, Environmental Branch Chief
Contribution: Document preparation oversight

Miguel Vilicana, NPDES Coordinator
Contribution: Water Quality Assessment Report

Rajive Chadha, Engineering Geologist
Contribution: Initial Site Assessment for Hazardous Waste

Robin Solari, Landscape Architect
Contribution: Visual Assessment Report

Roy Galarpe, Design Senior
Contribution: Design oversight

Ryan Henry, Project Engineer
Contribution: Project design

Stacey Barnes, Project Manager
Contribution: Project management

Youngil Cho, Air and Noise Specialist
Contribution: Air Quality and Greenhouse Gas Memorandum

Appendix A. Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

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March 16, 2012

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

A handwritten signature in blue ink that reads "Malcolm Dougherty".

MALCOLM DOUGHERTY
Acting Director

"Caltrans improves mobility across California."

Appendix B. Caltrans Standard Specifications, Special Provisions, Best Management Practices And Mitigation Measures

Caltrans standard specifications, special provisions, and best management practices (BMPs) that apply will be implemented during construction. Standard specifications and special provisions are project specific conservation measures to be implemented for the protection of a species and/or its habitat. BMPs are implemented in all Caltrans construction projects. Caltrans may, on project basis, specify or require contractors to implement certain BMPs.

The following standard specifications, special provisions, and BMPs will be implemented for this project.

- Equipment storage, material staging, and stockpiling shall only occur in designated construction staging areas located at least 100 feet away from Ordinary High-Water Mark (OHWM) of Lower Moffett Creek.
- Preserve and protect existing vegetation not to be removed.
 - Roots of felled trees and brush shall not be removed unless authorized by the Engineer. Trees and brush shall be felled between October 1 and January 31. If trees must be removed outside of this period it must be authorized by the Engineer.
 - Disturbance or removal of existing vegetation shall not exceed the minimum necessary to complete the project.
 - Environmental Sensitive Areas will be called out on plan sheets to protect in place vegetation not slated for removal.
- Work within the drainage channel below the OHWM may occur from May 1 to October 31 of any year, when the creek is in low flow conditions.
- Monitor the National Weather Service's (NWS) forecast daily. If the NWS predicts a storm event in the project area with at least a 50 percent probability of precipitation within 72 hours for construction activities, do not begin work or stop work immediately in the drainage channel.
- Submit a dewatering and discharge work plan to the Engineer for approval by the regulatory agencies (i.e., CDFW and NMFS).
- Prevent the discharge of concrete and asphalt concrete waste from entering receiving waters.
- Prevent job-site liquid waste from entering receiving waters.
- Fueling and maintenance on vehicles and equipment must be performed off site. If fueling or maintenance of vehicles and equipment must be performed at the job site, the activities must be performed on level ground and 50 feet from receiving waters.
- Place drip pans, plastic sheeting, and/or absorbent pads under vehicles and equipment used on surfaces over water. Keep enough spill-clean up material with the vehicles and equipment to handle potential spills.
- Do not allow materials generated during structures demolition to enter receiving waters. Use attached devices on equipment to catch debris during demolition activities.
- Submit a Temporary Creek Diversion System (TCDS) Plan to the Engineer for approval by regulatory agencies (i.e., CDFW and NMFS).

- Construction use and removal, of the TCDS is restricted to the time frame of May 15 to October 31. Construction of the TCDS must occur during daylight hours. If work cannot be completed during the period of May 15 to October 31, remove the TCDS, restore the creek to original flow condition, and reconstruct the TCDS after or on May 15 of the following year. No work is allowed within the flowing waters except during the restricted time frame.
 - Remove vegetation to ground level to allow regeneration of riparian vegetation following construction.
- Monitor and maintain the TCDS.
- When no longer required, remove all components (i.e., culvert, gravels, isolation fabric) of the TCDS. Return the creek bed and banks to the original condition.
- Environmentally sensitive area (ESA) will be shown on plans to protect in place the trees located immediately downstream and upstream of the work limits.
- Bird exclusion must be performed between October 1 and January 31.
- Caltrans anticipates nesting or attempted nesting by migratory and nongame birds from February 1 to September 30. Do not perform tree or shrub removal during nesting or attempted nesting.
- If tree or shrub cannot be removed outside of the anticipated nesting or attempted nesting period, a contractor supplied biologist will conduct a preconstruction survey no more than 3 days prior to the tree or shrub removal.
 - If active nest(s) are located during preconstruction survey, the contractor supplied biologist will notify the contractor.
- Prepare and submit an invasive species prevention plan. The plan must describe measures for preventing the introduction and spread of invasive species.
- Submit an exclusion plan prepared by a qualified biologist to the Engineer. Allow 10 days for review. Do not start jobsite activities until the plan is authorized.
- Monitor the effectiveness and maintenance of the exclusion devices as described in the permit, license, agreement, or certificate.
- Materials for bird exclusion must be one or a combination of the following:
 - Polytetrafluorethylene (PTFE) sheeting.
 - Acoustical deterrent
 - Visual deterrent
 - Other materials authorized by the engineer.
- You may not use devices that include netting.
 - A qualified biologist must oversee installation, maintenance and removal of the exclusion device.
 - During the nesting season, nest removal is not allowed. If attempted nesting occurs during the nesting season, you may remove the nest material prior to the nests becoming one-third complete.
 - During the non-nesting season, nest removal is allowed.
 - Clean bird waste or other debris from the contact surfaces of the bridge girders before installing the exclusion devices.
 - Upon completion of the work, remove exclusion devices.
- Following construction, all disturbed soil areas will be stabilized with erosion control measures, and erosion control materials such as straw and seed mixes will be certified weed-free.
- Plans will show plant species that will be used for erosion control. They will consist of native species or non-persistent hybrids that will prevent invasive species from colonizing disturbed areas.
- Straw must be certified weed free under the Department of Food and Agriculture. Straw must be free of plastic, glass, metal, rocks, and refuse or other deleterious material.

- Seed must not contain:
 - Prohibited noxious weed seed
 - More than 1.0 percent total weed seed by weight
- According to Caltrans Standard Specifications, the contractor must comply with all of the Siskiyou County Air Pollution Control District rules, ordinances, and regulations regarding air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C “Emission Reduction” and Section 14-9.03 “Dust Control”. Provision 14-9.02 “Air Pollution Control” requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.
- Landscaping reduces surface warming, and through photosynthesis, decreases CO₂. The project includes replanting in areas cleared by construction activities. This replanting would help offset any potential CO₂ emissions increase.

The following mitigation measures will be implemented for this project.

- Coordination between Caltrans and CDFW has identified potential restoration projects that would mitigate the effect of Coho salmon. The specific restoration project will be identified during the consistency determination; however, possible restoration projects in the Scott River watershed, include but are not limited to, restoration projects in French, Patten, and Moffett creeks. The potential restoration activities within these creeks, include but are not limited to, installation of livestock fencing, installation of beaver dam analogues, large wood augmentation for fish habitat, instream floodplain and riparian improvement, and restoration of riparian vegetation. Another possible mitigation option would be to install a stream gage on Moffett Creek. A previous USGS stream gage existed on Moffett from 1959 – 1967. The installation of a new stream gage would be beneficial to the long-term restoration of Moffett Creek. Caltrans contractor would install the gage and then transfer ownership, maintenance, and data collection to CDFW, or another willing agency such as the USGS.
- For the proposed 0.013 acres of permanent impacts to riparian vegetation, Caltrans will offset the impacts or loss by offsite in-kind mitigation or other type of mitigation strategy identified by the CDFW during the notification or permit process. Temporary loss of riparian habitat is expected to naturally re-established. In addition, as required by the CDFW, the Oregon grape, multi-flora rose, and California gooseberry bushes found within the southwest and southeast quadrants of the existing bridge will be protected in place. If they need to be disturbed during construction, the Oregon grape, multi-flora rose, and California gooseberry bushes can be transplanted or replanted within the Caltrans’ ROW rather than disposing of them.

Appendix C. Regional Species Tables

Regional Species Table - Wildlife						
Scientific Name	Common Name	Status Federal/State	Other Status	General Habitat	Habitat Present/Absent	Impact and Rationale
<i>Accipiter gentilis</i>	northern goshawk	--/--	BLM_S-Sensitive CDF_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S- Sensitive	Within, and in vicinity of, coniferous forest. Uses old nests and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be impacted by the proposed project.
<i>Aquila chrysaetos</i>	golden eagle	--/--	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is approximately 685 feet northeast of Marlahan pond at the toe of Chaparral Hill. The nest is more than 6 miles away from the project site. Therefore, the species will not be impacted by the proposed project.
<i>Ardea herodias</i>	great blue heron	--/--	CDF_S-Sensitive IUCN_LC-Least Concern	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites near foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is along Patterson Creek, north of Eller Lane, about 0.50 mile west of the Scott River. The rookery site is more than 9 miles away from the project site. Therefore, the species will not be impacted by the proposed project.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	--/--	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S- Sensitive WBWG_H-High Priority	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is near Greenview Mines on BLM land. The bats are more than 8 miles away from the project site. Therefore, the species will not be impacted by the proposed project.

<i>Emys marmorata</i>	western pond turtle	--/--	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, and if any, presence of the species would be limited to seasonal movement, because Moffett Creek can become disconnected from the Scott River at the mouth, preventing turtles from entering Scott River from the creek. Creeks occupy by the turtle lack connection to Moffett Creek and its tributaries. Nearby ponds do not exist. Also, Moffett Creek is shallow and lacks emergent aquatic vegetation or logs. The closest documented occurrence is near Brazies Pond in Yreka. Additionally, the species was not observed during field surveys. Therefore, the species will not be impacted by the proposed project.
<i>Erethizon dorsatum</i>	North American porcupine	--/--	IUCN_LC-Least Concern	Forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges. Wide variety of coniferous and mixed woodland habitat.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is along SR 3, approximately 4 miles north of the project limits. The porcupine was observed as a roadkill. Therefore, the species will not be impacted by the proposed project.
<i>Falco mexicanus</i>	prairie falcon	--/--	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. Nesting requirements such as ledge, cavity, or crevice of a cliff face does not exist in the ESL. The closest documented occurrence is at an elevation of 5,400 feet near Duzel Rock Lookout, approximately 7 miles southeast of the project limits. Therefore, the species will not be impacted by the proposed project.
<i>Hydroporus leechi</i>	Leech's skyline diving beetle	--/--		Aquatic.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is in a roadside spring on Soap Creek Ridge, approximately 3 miles north of the project limits. Presence of the species was documented in the 60s. No new

						documentation of the species since. Therefore, the species will not be impacted by the proposed project.
<i>Pekania pennanti</i>	fisher - West Coast DPS	--/T	BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is along SR 3, approximately 3 miles north of the project limits. The adult male fisher was observed as a roadkill. Therefore, the species will not be impacted by the proposed project.
<i>Rana boylei</i>	foothill yellow-legged frog	--/CT	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, and because substrates in Moffett Creek consist mostly of fine sand and gravel with little to no boulders or bedrock, presence of the species is unlikely. The closest documented occurrence is along Yreka Creek near Canann Gulch, southwest of Yreka. The species was not observed during field surveys. Therefore, the species will not be impacted by the proposed project.
<i>Riparia riparia</i>	bank swallow	--/T	BLM_S-Sensitive IUCN_LC-Least Concern	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. The closest documented occurrence is about 7 miles south of the project limits, north of Eller Lane Bridge within the Scott River. Therefore, the species will not be impacted by the proposed project.
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	E/--	IUCN_EN-Endangered	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.

<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	T/--	IUCN_VU-Vulnerable	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Canis lupus</i>	gray wolf	E/E	IUCN_LC-Least Concern	Habitat generalists, historically occupying diverse habitats including tundra, forests, grasslands, and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water, and low human contact.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. No documented occurrences are near the project limits. Therefore, the species will not be impacted by the proposed project.
<i>Chasmistes brevirostris</i>	shortnose sucker	E/E	AFS_EN-Endangered CDFW_FP-Fully Protected IUCN_EN-Endangered	Native to the Klamath and Lost river systems in California and Oregon. Spend most of year in open waters of large lakes. They feed on plankton. Spawn in tributary streams.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	T/E	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Deltistes luxatus</i>	Lost River sucker	E/E	AFS_EN-Endangered CDFW_FP-Fully Protected IUCN_EN-Endangered	Native to the Lost River system in California and Oregon. Primarily a lake species found in fairly deep water. Adults run up tributary streams to spawn in the spring.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Entosphenus similis</i>	Klamath River lamprey	--/--	AFS_TH-Threatened CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Upper Klamath River and upper Klamath Lake. Adults need coarser gravel-rubble substrate for spawning. Ammocoetes need sand/mud substrate in shallow pools.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Entosphenus tridentatus</i>	Pacific lamprey	--/--	AFS_VU-Vulnerable BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Found in Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temps between 12-18 C. Ammocoetes need soft sand or mud.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	E/--	IUCN_EN-Endangered	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.

<i>Oncorhynchus kisutch</i> pop. 2	coho salmon - southern Oregon / northern California ESU	T/T	AFS_TH-Threatened	Federal listing refers to populations between Cape Blanco, Oregon and Punta Gorda, Humboldt County, California. State listing refers to populations between the Oregon border and Punta Gorda, California.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, and if any, presence of the species would be limited to seasonal movement, because Moffett Creek can become disconnected from the Scott River at the mouth, preventing fish from entering Moffett Creek from Scott River. The species was not observed during field surveys.
<i>Oncorhynchus tshawytscha</i> pop. 30	chinook salmon - upper Klamath and Trinity Rivers ESU	CE/P	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Spring-run chinook in the Trinity River and the Klamath River upstream of the mouth of the Trinity River. Major limiting factor for juvenile chinook salmon is temperature, which strongly effects growth and survival.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, and if any, presence of the species would be limited to seasonal movement, because Moffett Creek can become disconnected from the Scott River at the mouth, preventing fish from entering Moffett Creek from Scott River. The species was not observed during field surveys.
<i>Rana pretiosa</i>	Oregon spotted frog	T/--	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	Low swampy areas in mountainous woodlands and wet meadows, springs, small cold streams & lakes in northeastern California. Standing water needed for breeding.	A	Project limits are outside the species' distribution range, and suitable habitat is not present. Therefore, the species will not be affected or impacted by the proposed project.
<i>Strix occidentalis caurina</i>	northern spotted owl	T/T	CDF_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy.	A	Although the project limits fall within the species' distribution range, suitable habitat is not present in the ESL. A closest documented occurrence is a negative observation that is approximately 0.50 mile east of the project limits. Therefore, the species will not be impacted by the proposed project.

Federal	Habitat Evaluation
-- = No Status	A (Absent) = the ESL is outside of the species known range and/or potential suitable habitat is not present in the ESL and no further work is needed.
CE = Candidate Endangered	HP (Habitat Present) = potential suitable habitat is or may be present in the ESL. The species may be present.
E = Endangered	P (Present) = the species known to occur (documented in CNDDB or elsewhere) and/or was observed during field surveys within the ESL.
T = Threatened	CH (Critical Habitat) = the ESL is located within a designated critical habitat unit but does not necessarily mean that appropriate habitat is present.
State	
-- = No Status	
E = Endangered	
CT = Candidate Threatened	
T = Threatened	

Regional Species Table - Plant						
Scientific Name	Common Name	Status Federal/State/CNPS	Other Status	General Habitat Description	Habitat Present/Absent	Impact and Rationale
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	--/--/4.2		Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland. Dry grassy slopes. 150-1305 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Arabis oregana</i>	Oregon rockcress	--/--/4.3		Chaparral, Lower montane coniferous forest. Rocky hillsides, steep banks, serpentinite. 600-1830 m.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, the species was not observed during field surveys, and no known observations have been reported near the ESL.
<i>Balsamorhiza lanata</i>	woolly balsamroot	--/--/1B.2	BLM_S-Sensitive	Cismontane woodland. Open woods, grassy slopes. Volcanic substrates. 575-1830 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Calochortus persistens</i>	Siskiyou mariposa-lily	--/R/1B.2	BLM_S-Sensitive USFS_S-Sensitive	Lower montane coniferous forest, North Coast coniferous forest. On dry shallow soils of metavolcanic origin. Open, rocky areas. 1310-1735 m.	A	The ESL is outside the species' known range, and suitable habitat is not present. The species is not expected to be found within the ESL.
<i>Chaenactis suffrutescens</i>	Shasta chaenactis	--/--/1B.3	BLM_S-Sensitive SB_Berry Seed Bank USFS_S-Sensitive	Lower montane coniferous forest, upper montane coniferous forest. Unstable, sandy to rocky, generally serpentine soils, scree, drainages. 750-2800 m.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. Known observations of the species have been reported near the ESL; however, the species was not observed during field surveys.
<i>Cypripedium fasciculatum</i>	clustered lady's-slipper	--/--/4.2		Lower montane coniferous forest, North Coast coniferous forest. 100-2435 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Eriogonum siskiyouense</i>	Siskiyou buckwheat	--/--/4.3		Lower montane coniferous forest (rocky, often serpentinite). 970-2740 m.	HP	Although project limits are outside of species' known range, suitable habitat maybe present. However, the species was not observed during field surveys and no known observations have been reported near the ESL. Also, Jepson eFlora noted the species lower range of occurrence is at 1600 m. Thus, the species is not anticipated to be found within the area of disturbances.

<i>Eriogonum ursinum</i> var. <i>erubescens</i>	blushing wild buckwheat	--/--/1B.3	BLM_S-Sensitive USFS_S-Sensitive	Lower montane coniferous forest, montane chaparral. Rocky (gravel) sites including scree and talus. 790-2120 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL. Also, Jepson eFlora noted the species lower range of occurrence is at 1600 m. Thus, the species is not anticipated to be found within the area of disturbances.
<i>Euphorbia hooveri</i>	Hoover's spurge	T/--/1B.2		Vernal pools. Vernal pools on volcanic mudflow or clay substrate. 25-130 m.	A	The ESL is outside the species' known range, and suitable habitat is not present. The species is only found in Butte, Tehama, and Tulare Counties. Therefore, the species is not expected to be found within the ESL.
<i>Fritillaria gentneri</i>	Gentner's fritillary	E/--/1B.1		Cismontane woodland, chaparral. Open sites at edge of woodland or chaparral (in Oregon); sometimes on serpentine. 1005-1120 m.	A	The ESL is outside the species' known range, and suitable habitat is not present. The species is not expected to be found within the ESL.
<i>Galium serpenticum</i> ssp. <i>scotticum</i>	Scott Mountain bedstraw	--/--/1B.2	BLM_S-Sensitive	Lower montane coniferous forest. Generally on north-facing steep slopes on serpentine in mixed conifer (pine) forest. 950-2225 m.	HP	Although project limits are outside of species' known range, suitable habitat maybe present. However, the species was not observed during field surveys and no known observations have been reported near the ESL. Also, Jepson eFlora noted the species lower range of occurrence is at 1000 m. Thus, the species is not anticipated to be found within the area of disturbances.
<i>Hymenoxys lemmonii</i>	alkali hymenoxys	--/--/2B.2		Great Basin scrub, lower montane coniferous forest, meadows and seeps. Roadsides, open areas, slopes, drainage areas, stream banks. Subalkaline soils. 805-2745 m.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, the species was not observed during field surveys, and no known observations have been reported near the ESL.
<i>Lewisia cotyledon</i> var. <i>howellii</i>	Howell's lewisia	--/--/3.2		Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest. Rock outcrops, crevices on canyon walls, open woodland; serpentine . 150-2010.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, the species was not observed during field surveys, and no known observations have been reported near the ESL.
<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	woolly meadowfoam	--/--/4.2		Chapparal, cismontane woodland, valley and foothill grassland, vernal pools. Vernal wet areas, ditches, and ponds. 60-1335 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Lomatium peckianum</i>	Peck's lomatium	T/E/2B.2	SB_UCBB G-UC Berkeley Botanical Garden	Vernal pools. Often in gravelly substrate. 25-1755 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.

<i>Orthocarpus pachystachyus</i>	Shasta orthocarpus	--/--/1B.1	BLM_S-Sensitive	Great Basin scrub, meadows and seeps, valley and foothill grassland. Alluvial plains, hillsides. Openings in sagebrush scrub. 835-1525 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Phacelia greenei</i>	Scott Valley phacelia	--/--/1B.2	BLM_S-Sensitive USFS_S-Sensitive	Closed-cone coniferous forest, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. Bare serpentine ridges and openings in yellow pine and red fir forest communities. 850-2380 m.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. Known observations of the species have been reported near the ESL; however, the species was not observed during field surveys.
<i>Phlox hirsuta</i>	Yreka phlox	E/E/1B.2	SB_RSAB G-Rancho Santa Ana Botanic Garden	Lower montane coniferous forest, upper montane coniferous forest. Open slopes and grasslands, on serpentine gravel. 830-1280 m.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, the species was not observed during field surveys, and no known observations have been reported near the ESL.
<i>Polemonium carneum</i>	Oregon polemonium	--/--/2B.2		Coastal prairie, coastal scrub, lower montane coniferous forest. Moist to dry, open areas. 0-1830 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Sabulina howellii</i>	Howell's sandwort	--/--/1B.3	BLM_S-Sensitive	Lower montane coniferous forest, chaparral. Dry open places, often on serpentine hillsides and ridges, near Jeffrey pines. 550-1000 m.	HP	Based on habitat requirement and the presence of potential suitable habitat within the ESL, it is anticipated that the species may be present at project site. However, the species was not observed during field surveys, and no known observations have been reported near the ESL.
<i>Scirpus pendulus</i>	pendulous bulrush	--/--/2B.2		Meadows and seeps, freshwater marsh. Mesic sites. 800-885 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Trifolium siskiyouense</i>	Siskiyou clover	--/--/1B.1		Meadows and seeps. Mesic sites. 880-1500 m.	A	Although project limits fall within the species' known range, suitable habitat is not present. No known observations have been reported near the ESL; thus, the species is not anticipated to be found within the area of disturbances.
<i>Triteleia crocea</i> var. <i>crocea</i>	yellow triteleia	--/--/4.3		Lower montane coniferous forest (granitic or serpentinite). 1200-2000 m.	HP	Although project limits are outside of species' known range, suitable habitat maybe present. However, the species was not observed during field surveys and no known observations have been reported near the ESL. Thus, the species is not anticipated to be found within the area of disturbances.

California Native Plant Society (CNPS)	Federal	Habitat Evaluation
-- = No status	-- = No Status	A (Absent) = the ESL is outside of the species known range and/or potential suitable habitat is not present in the ESL and no further work is needed.
1A = Presumed extinct in California	CE = Candidate Endangered	HP (Habitat Present) = potential suitable habitat is or may be present in the ESL. The species may be present.
1B = Rare, threatened, or endangered in California and elsewhere	E = Endangered	P (Present) = the species known to occur (documented in CNDDDB or elsewhere) and/or was observed during field surveys within the ESL.
2B = Rare, threatened, or endangered in California, but more common elsewhere	T = Threatened	CH (Critical Habitat) = the ESL is located within a designated critical habitat unit but does not necessarily mean that appropriate habitat is present.
3 = Plants about which more information is needed – a review list	State	
4 = Limited Distribution - A Watch List	-- = No Status	
0.1 = Seriously endangered in California	E = Endangered	
0.2 = Fairly endangered in California		
0.3 = Not very endangered in California		