

DRAFT

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

BIG TREES PARKWAY BRIDGE DECK REPLACEMENT

**CALAVERAS BIG TREES STATE PARK,
CALAVERAS AND TUOLUMNE COUNTIES**

BRIDGE NUMBER: 30P-0001



LSA

May 2025

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CALAVERAS AND TUOLUMNE COUNTIES
BRIDGE NUMBER: 30P-0001**

Submitted to:

California Department of Parks and Recreation
Central Valley District
22708 Broadway Street
Columbia, California 95310

Prepared by:

LSA
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Project No. BUH2102



May 2025

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LIST OF ABBREVIATIONS AND ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ACM	asbestos-containing materials
ADL	aerially deposited lead
APE	Area of Potential Effects
APN	Assessor's Parcel Number
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CAC	Certified Asbestos Consultant
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
Caltrans SSPs	California Department of Transportation Standard Special Provisions
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CCAPCD	Calaveras County Air Pollution Control District
CCC	Civilian Conservation Corps
CCIC	Central California Information Center
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act

CGS	California Geological Survey
CHP	California Highway Patrol
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CSST	Certified Site Surveillance Technician
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DBH	diameter at breast height
DOC	Department of Conservation
DOSH	California Division of Occupational Safety and Health
DPR	California Department of Parks and Recreation
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EFH	essential fish habitat
EFZ	Earthquake Fault Zones
EQ Zapp	California Earthquake Hazards Zone Application
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZs	Fire Hazard Severity Zones

FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FRAP	Fire and Resources Assessment Program
FTA	Federal Transit Administration
FYLF	Foothill yellow-legged frog
GSAs	groundwater sustainability agencies
HUD	United States Department of Housing and Urban Development
in/sec	inches per second
IPaC	Information for Planning and Consultation
LBP	lead-based paint
L _{dn}	day-night average level
L _{eq}	equivalent continuous sound level
L _{max}	maximum noise level
LOS	level of service
LRA	Local Responsibility Area
L _v	vibration velocity levels in decibels
MASH	Manual for Assessing Safety Hardware
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
mg/cm ²	milligram per square centimeter
MLD	Most Likely Descendant
NAAQS	National Ambient Air Quality Standards
NAHC	North American Heritage Commission

NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NRI	National River Inventory
NWP	Nationwide Permit
O	Open Space
OPR	Governor's Office of Planning and Research
ORVs	Outstandingly Remarkable Values
OSHA	Occupational Safety and Health Administration
P	Public
PM ₁₀	particulate matter less than 10 microns in size
PPV	peak particle velocity
PRC	Public Resources Code
project	Calaveras Big Trees State Park – Big Trees Parkway Bridge Deck Replacement Project
REC	Recreation
RM	Resource Management
RMS	root-mean-square
RWQCB	Regional Water Quality Control Board
SGMA	Sustainable Groundwater Management Act
SLF	Sacred Lands File
SR	State Route
SRA	State Responsibility Area
SVP	Society of Vertebrate Paleontology

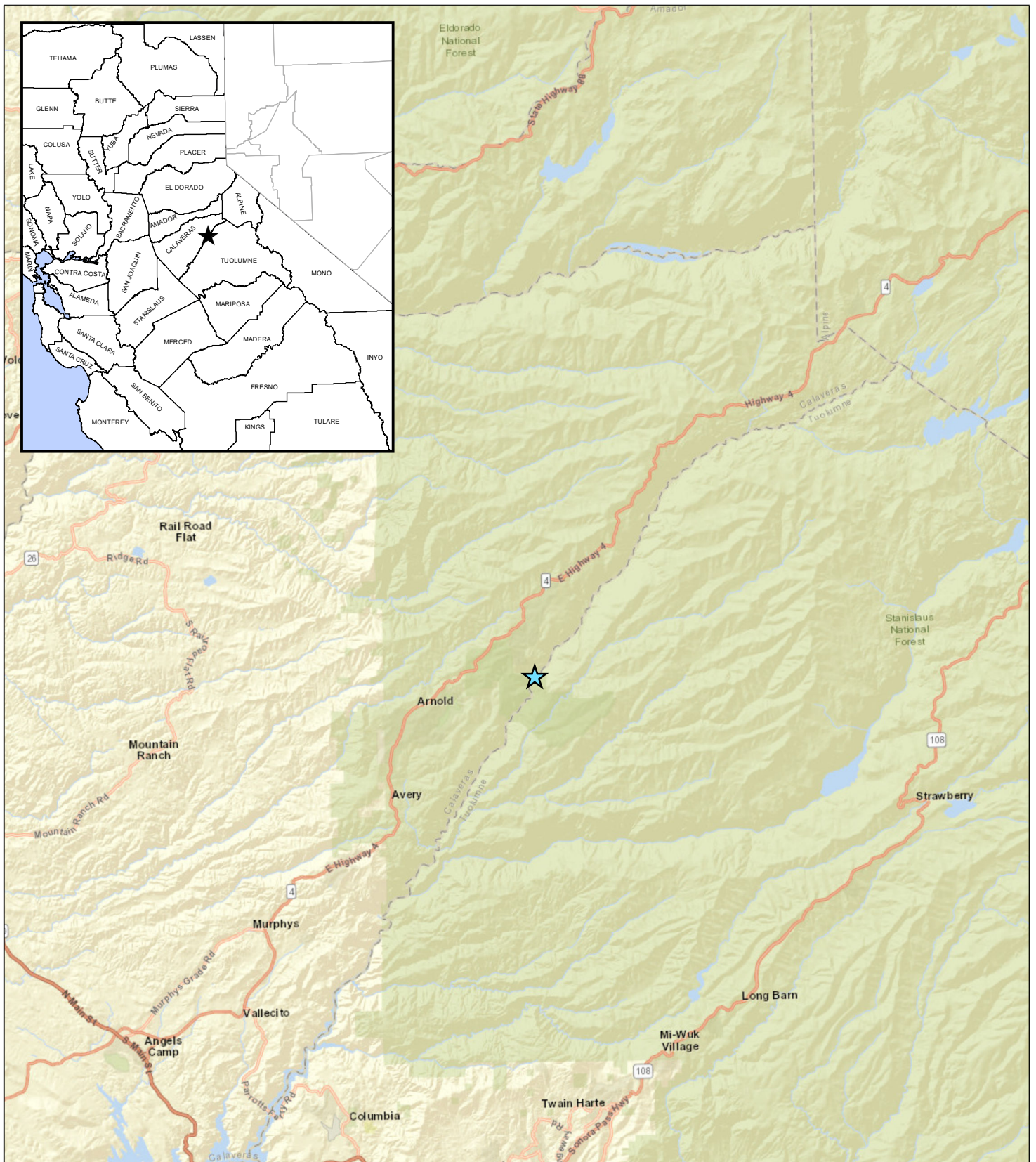
SWPPP	Storm Water Pollution Prevention Plan
SWSLPP	Storm Water Soil Loss Prevention Plan
TCAPCD	Tuolumne County Air Pollution Control District
TMP	Transportation Management Plan
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V	RMS velocity amplitude
VdB	vibration in decibels
VMT	vehicle miles traveled
V _{ref}	reference velocity amplitude
Waters of the U.S.	waters of the United States
WHO	World Health Organization
WPCP	Water Pollution Control Plan

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1.0 PROJECT INFORMATION

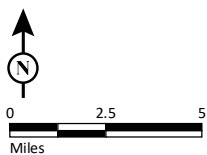
1. **Project Title:** Calaveras Big Trees State Park – Big Trees Parkway Bridge Deck Replacement
Project Bridge No. 30P-0001
2. **Lead Agency Name and Address:**
California Department of Parks and Recreation
Northern Service Center
2241 Harvard Street, Suite 200
Sacramento CA 95815
3. **Contact Person and Phone Number:**
Mike Brown
Project Manager
(916) 698-5982
4. **Project Location:** The Calaveras Big Trees State Park – Big Trees Parkway Bridge Deck Replacement Project (project) is located on Big Trees Parkway approximately 4.3 miles northeast of the community of Arnold, California. Calaveras Big Trees State Park encompasses about 6,500 acres of parkland in Calaveras and Tuolumne Counties. The bridge is located approximately 5.5 miles east of the State Park entrance at the Big Trees Parkway crossing of the North Fork Stanislaus River. The land west of the bridge is within Calaveras County (Assessor's Parcel Number [APN] 025-005-026), while the land east of the bridge is in Tuolumne County (APN 016-010-011). The bridge provides public access to the South Grove Trailhead and other park amenities south of the bridge including dedicated park picnic areas, and also provides service and emergency vehicle access. The bridge is located in Township 5N, Range 15E, NW 1/4 of SE 1/4 of Section 24, Mount Diablo Base Meridian, United States Geological Survey (USGS) 7.5' *Dorrington, California* quadrangle. The Area of Potential Effects (APE) is approximately 2.5 acres in size (the APE is considered the project boundary throughout this document). **Figure 1: Regional Location** and **Figure 2: Project Vicinity** show the location of the project site on a regional and local scale. **Figure 3: Proposed Project** shows the project site and immediately surrounding area, including the proposed limits of work.
5. **Project Sponsor's Name and Address:**
California Department of Parks and Recreation
Northern Service Center
2241 Harvard Street, Suite 200
Sacramento CA 95815

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LEGEND

★ Project Location



SOURCE: ESRI World Street Map (10/2023)

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FIGURE 1

*Big Trees Parkway Bridge (No. 30P-0001) Deck Replacement
Calaveras Big Trees State Park, Calaveras County, California
LSA Project No. BUH2102
Regional Location*

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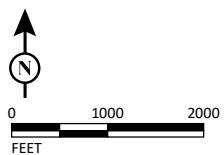


FIGURE 2



LEGEND

 Study Area - (2.407 ac)



SOURCE: Vivid Maxar Aerial Imagery (06/2021)

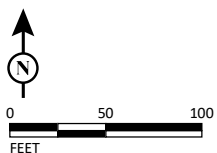
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*Big Trees Parkway Bridge (No. 30P-0001) Deck Replacement
Calaveras Big Trees State Park, Calaveras County, California
LSA Project No. BUH2102
Project Vicinity*

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FIGURE 3



LEGEND

- Study Area - (2.407 ac) Existing
-  Bridge
- Permanent Impact Footprint
- Temporary Impact Footprint

*Big Trees Parkway Bridge (No. 30P-0001) Deck Replacement
Calaveras Big Trees State Park, Calaveras County, California
LSA Project No. BUH2102
Proposed Project*

SOURCE: Google Aerial Imagery (06/2021); Design - Mark Thomas (05/2023)

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6. **General Plan Designation:** Per the Calaveras Big Trees State Park General Plan Land Use map,¹ the North Fork Stanislaus River, the bridge along Big Trees Parkway over the North Fork Stanislaus River, the River Access Parking Area and River Picnic Area are designated Day Use. Additionally, per the Calaveras County General Plan Land Use Map,² land to the west of the bridge is designated as Resource Management (RM). Per the Tuolumne County 2018 General Plan Land Use Map,³ land to the east of the bridge is designated as Public (P).
7. **Zoning:** Land to the west of the bridge is zoned Recreation (REC) per the Calaveras County Zoning Map (2022) and land to the east of the bridge is zoned Open Space (O) per the Tuolumne County Zoning Map (2022).

8. **Description of Project:**

Introduction

The California Department of Parks and Recreation (DPR) in cooperation with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) is proposing to rehabilitate the Calaveras Big Trees State Park – Big Trees Parkway Bridge Deck (Br. No. 30P-0001) and to construct the necessary approach roadway improvements to accommodate the bridge upgrades. The project would replace the deteriorated concrete roadway deck, construct the necessary roadway approach improvements, and address seismic deficiencies of the existing bridge to satisfy current performance standards.

The project would require compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). DPR is the lead agency for the CEQA process, while Caltrans is the lead agency for the NEPA process.

Existing Facility

The existing bridge was built in 1959 and measures 36 feet wide by 236 feet long. The existing bridge consists of two 14-foot travel lanes, two 4-foot sidewalks on each side of the bridge, and timber guardrails.

Caltrans conducted a fracture critical inspection in May 2021, and the findings of the fracture critical inspection are included in the December 2022 Bridge Inspection Report. The 2022 inspection identified the bridge as fracture critical, which means the structure was found to have seismic vulnerability. Additionally, in the December 2022 Bridge Inspection Report, Caltrans categorized the bridge deck as “Serious Condition” due to the widespread spalling and delamination in the deck soffit. A spall is an area of concrete where water has entered the surface of the concrete and weakened the integrity of the material. This causes the surface of the concrete to become brittle and flake, peel, or pop out. An area of delamination is generally

¹ California Department of Parks and Recreation. 1990. *Calaveras Big Trees State Park General Plan*. September.

² Calaveras County. 2020. *Calaveras County General Plan Land Use Map*. October.

³ Tuolumne County Community Resources Agency. 2018. *Tuolumne County General Plan Volume II: Technical Background Report*. August.

caused by water damage and is characterized by concrete that peels or falls off the structure layer by layer.

During the fall of 2021, DPR completed a temporary deck repair project to ensure the continued load capacity of the bridge deck (15, 24, and 26 tons for Type 3, Type 3-S2, and Type 3-3 trucks, respectively). The temporary deck repair project involved the addition of steel trench plates over the westbound lane in spans 1 and 3. The eastbound lane is currently closed to vehicle traffic, with orange barriers demarcating the single open lane, and vehicular access to the one-lane bridge is controlled by a metered stop light.

Purpose and Need

The purpose of the project is to replace the deck on the Big Trees Parkway Bridge over the North Fork Stanislaus River and provide seismic stability to the bridge piers. The proposed project would repair, protect, and extend the service life of the deck and install seismic restraint devices at bridge connections.

The project is needed due to widespread deck spalling, delamination, and rusted reinforcement in the deck. The bridge deck would continue to deteriorate and result in the need of emergency repairs if work is not completed.

Project

The project would replace the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River in Calaveras Big Trees State Park, Calaveras and Tuolumne Counties, California. The proposed bridge would be 236 feet long and 36 feet wide including barriers, two 13-foot-wide travel lanes, and 2-foot-wide Manual for Assessing Safety Hardware (MASH)-compliant barriers that would replace existing timber guardrails on both sides of the bridge. The existing deck of the three-span bridge would be rehabilitated through deck replacement. The existing 4-foot-wide sidewalks located on the north and south sides of the bridge would be removed and a new 6-foot-wide sidewalk on the south side of the bridge would be constructed.

Construction work would occur within existing roadway right-of-way or within property owned and operated by the DPR. The proposed project would not require temporary or permanent property acquisition. Construction of the project is estimated to begin in July 2025 and would be completed by November 2025 while the site is free of snow. The proposed project would be approximately 800 feet long and approximately 2.5 acres in size.

Staging Area

The construction staging area would be located in the existing paved parking lot on the west side of the river. Approximately one half of the parking lot would be required for staging. The portion of the parking lot to be used as the staging area would be fenced and house two 20-foot by 8-foot, secured equipment containers. A 30-cubic yard dumpster bin would remain on site during the demolition phase. Heavy equipment would be stored within the fenced staging area and would consist of a semi-truck with flat-bed trailer and a rubber tire skid steer.

Shoring Platform, Demolition, and Site Preparation

A temporary shoring platform would be installed below the bridge deck to be used as a catchment for the demolished concrete and as a personnel platform. The catchment would be suspended from the steel bridge girders and anchored to the concrete piers and abutments. The elements of the shoring would be installed by mobile crane access on the bridge deck. The crane would only be stored on site during the shoring installation and removal operations. The crane would be positioned on the west abutment for access to swing materials and equipment down below the bridge. No equipment would be stored within the floodplain. Personnel access on the ground below the bridge would be limited to rock removal during the foundation retrofit work and is not anticipated during demolition. All dust and demolished materials would be controlled by Best Management Practices (BMPs) to prevent sediment and materials from entering the river.

Up to 100 feet of vegetation 3 feet wide would be cleared with hand tools to create access pathways leading to the interior piers. During construction activities, BMPs would be implemented for erosion control. Erosion and sediment control devices and slope protection would be applied in areas that would provide access to the bridge piers. BMPs would be implemented throughout the construction phase. Dewatering would not be required, and no in-water work would occur at any point during construction.

The formwork needed for the bridge deck construction would be attached to the steel girders. Access to install the forms would be from the temporary suspended platform below the beams. Likewise, access for construction would be from the temporary platform below the deck including temporary stair elements at the piers to access the footing. Additionally, the piers would require scaffolding to gain access along their height.

The existing concrete deck would be demolished using an excavator. The majority of the deck would be removed, and debris would be collected at the west end of the bridge. Demolition would begin on the east end of the bridge and finish at the west end. A catchment platform would be installed below the bridge to catch smaller pieces of concrete and prevent material from dropping in the riverbed. Concrete collected by the catchment platform would be removed by hand. Existing wood guardrails on the bridge would be cut or unbolted using hand tools from the bridge deck. All demolished materials would be collected in dumpsters in the staging area and hauled to a disposal facility in Calaveras County.

Roadway Approaches, Bridge Deck, and Seismic Retrofit Work

Each roadway approach would be graded and new slopes would be constructed to achieve a flush transition at the surface of the bridge deck. Anticipated grading limits for the roadway approaches would be approximately 300 feet on the west and east approaches.

The project would replace the existing decking; therefore, the vertical profile would be similar to the existing profile. The concrete deck would be placed by a concrete boom pump located on the west approach of the road. Pouring of concrete would begin on the east end and progress to the west end. Where the pump hose is not long enough to reach the work area, a steel pipe extension tube would be used. The concrete truck would operate on the west side of the bridge. The new MASH-compliant guardrail would be bolted to anchors cast into the new concrete deck.

The structure would be designed and constructed to comply with the American Association of State Highway and Transportation Officials (AASHTO) HL-93 highway loading standard (an upgrade from the current H15 rating). The existing abutments, pier structures, and girder connections would be retrofitted to current Caltrans seismic performance standards, if practical. The pier footing would be widened by 12 inches on all sides and 12 inches of new concrete would be added on top of the footing. This process would include drilled and epoxied reinforcing dowels into the rock and the existing footing concrete. Existing concrete surfaces would be roughened with a bush hammer or jack hammer. The girders bearing on the abutments would be reinforced with additional seismic restraints consisting of reinforced concrete piers next to the existing steel bearing pin. Existing steel girder modifications would include seismic restrainer cables at hinge connections and bearing seats. The project would involve installation of new steel cover plates on the girders, which may include drilling new holes in existing steel, installation of seismic restraints at the piers and abutments, and seismic retrofit of the pier foundations.

The crosswalk on the west side of the bridge would be restriped, and a new crosswalk on the east side of the bridge would be striped to accommodate pedestrian traffic from the proposed 6-foot-wide sidewalk on the south side of the bridge to the northern road shoulder. A minimum of two 4-inch round openings for future utilities would be installed in the sidewalk. Because one 4-inch round opening can be added for each additional foot of sidewalk width, a maximum of six round utility openings could be installed in the 6-foot-wide sidewalk.

On either end of the south/downstream side of the bridge, water from roadside ditches along Big Trees Parkway drains to the North Fork Stanislaus River through culverts. The project would not disturb those existing drainage features.

Access

Bridge access would be closed for the duration of construction activities. Construction vehicles and equipment would access the project site from the west; Big Trees Parkway as it approaches the bridge would not require modification to support the construction traffic. Roadway closure barriers and signage would be installed along Big Trees Parkway to alert motorists of the bridge/road closure.

Park facilities east (south) of the bridge would not be accessible to the public during construction. Facilities closed during construction include Oak Leaf Spring Picnic Area, South Grove Trailhead, Beaver Creek Campsites, and Beaver Creek Picnic Area. Fire access roads are present beyond the South Grove area; however, access is controlled by locked gates and the distance and road surface is not suitable for public access. Fire personnel may continue to access these areas by using fire roads originating from other areas, where feasible. Park facilities west of the bridge would remain open to the public during construction.

Post-Construction

At the conclusion of construction, fencing would be removed, and the staging area would be returned to its pre-project condition. Upon completion of the curing of the concrete deck, vehicle lanes would be striped consistent with existing lanes widths and any associated signage

would be attached to the bridge or the approaches. The temporary platform and shoring from below the deck would be removed. The demolished concrete bridge deck would be removed by mobile crane set on the bridge. All access routes/pathways disturbed during construction activities would be restored to pre-project conditions. BMP devices would be removed. Fencing and other items would be removed from the staging area. Any areas within the staging area that had been damaged (i.e., pavement damage) would be repaired and restored to pre-project conditions, as necessary.

Given the remote location of the bridge, utility relocation within the project site and surrounding area is not anticipated. No temporary utilities would be installed as part of this project. Power generation for construction would be delivered by portable generators.

Disturbed Soil Area

The total area of temporary impacts would be 0.60 acre, which would occur as a result of cleared vegetation for foot traffic access to the western bridge pier location, bridge abutments, and bridge approach shoulder.

The total area of permanent impact would be 0.02 acre. These impacts would occur during seismic retrofit of the western pier footing, which would widen the pier footing with concrete by 12 inches, and during abutment wingwall seismic retrofit work.

Therefore, the total Disturbed Soil Area would be 0.62 acre.

Cut-and-Fill Slopes

As described in Section 1.2.2, above, new slopes would be constructed and grading performed as required for each roadway approach to achieve a flush transition at the surface of the bridge deck. No slopes would be steeper than 2:1.

Net New Impervious Area

All existing impervious areas would be replaced or would remain in place, and the total area of permanent impact would be 0.02 acre. Therefore, the net new impervious area would be 0.02 acre.

Drainage Systems

Similar to the existing bridge, the replacement bridge deck would be on a horizontal curve so that the outer curve of the bridge deck, to the north, is higher than the inner curve. The 6-foot-wide sidewalk on the south side of the bridge would be constructed with a 9-inch curb. The four existing drains on the bridge deck would be replaced with seven drains placed on the deck at the foot of the curb, with sweep reinforcing around each drain. Drains would empty to 6-inch galvanized drain pipes, which would drain bridge deck flows to the North Fork Stanislaus River. Deck drains would be covered with grates, and would be placed a maximum of 50 feet apart.

No changes would be made to drainage beyond the bridge, either on the roadway or approaches at either end of the bridge.

- 9. Surrounding Land Uses and Setting:** The project site is located approximately 4.3 miles northeast of the community of Arnold within the Calaveras Big Trees State Park of southern Calaveras County and northern Tuolumne County. The subject bridge is surrounded by DPR lands including access to river picnic areas.

Additional information concerning surrounding land uses within and adjacent to the project site is included in the Land Use and Planning Section of this Initial Study.

- 10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):**

Agency	Permit/Approval
Caltrans District 10	NEPA Approval
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement for impacts to riparian vegetation of North Fork Stanislaus River ¹
State Water Resources Board (SWRCB)	Compliance with State Water Resources Control Board's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002) (Construction General Permit). ²
Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification for impacts to North Fork Stanislaus River ³
United States Army Corps of Engineers (USACE)	Section 404 Nationwide Permit (NWP 14 – Linear Transportation Projects) for impacts to North Fork Stanislaus River ⁴
United States Fish and Wildlife Service (USFWS)	Biological Opinion from Section 7 Consultation

Source: Compiled by LSA (2025).

¹ The CDFW can require a streambed alteration agreement under the California Fish and Game Code to protect North Fork Stanislaus River, its riparian habitat, and dependent fishery or wildlife resources.

² The proposed project would result in less than 1 acre of ground disturbance. Therefore, no Notice of Intent (NOI) or Stormwater Pollution Prevention Plans (SWPPP) would be required.

³ Per General Order (No. WQ-2021-0048-DWQ), NWP 14 is pre-certified by the RWQCB if project impacts do not exceed 0.01 acre and 100 linear feet for permanent impacts and 0.2 acre and 300 linear feet for total impacts to waters of the State.

⁴ In accordance with the conditions of NWP 14, notification is not required for impacts less than 0.1 acre and within an aquatic feature that is not a special aquatic site (e.g., wetlands).

Caltrans = California Department of Transportation

NEPA = National Environmental Policy Act

NPDES = National Pollutant Discharge Elimination System

- 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

The North American Heritage Commission (NAHC) was contacted on June 30, 2022, to conduct a Sacred Lands File (SLF) search and provide a Native American Contact List for the proposed project. The NAHC responded on August 5, 2022, stating that an SLF search was completed for the proposed project site with negative results and a list of tribes and individuals recommended for contact, which was provided to the DPR. These five individuals were contacted via certified letter sent on August 11, 2022, pursuant to Assembly Bill (AB) 52 to identify Tribal Cultural Resource describing the project with maps depicting the project study area. Follow up email notifications were sent on September 23, 2022, requesting confirmation of receipt of the letter

and a request for comments. No responses were received to either certified mail or electronic correspondence.

Consultation with tribes did not result in the identification of any tribal cultural resources.

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2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist in Chapter 3.0.

- | | | |
|--|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forestry Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology/Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards & Hazardous Materials |
| ☐ Hydrology/Water Quality | ☐ Land Use/Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population/Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☐ Tribal Cultural Resources |
| ☐ Utilities/Service Systems | ☐ Wildfire | ☐ Mandatory Findings of Significance |

2.1 DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “Potentially Significant Impact” or “Potentially Significant Unless Mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

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3.0 CEQA ENVIRONMENTAL CHECKLIST

3.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Impact Analysis

The discussion and analysis provided below is based on the Visual Impact Assessment Memorandum⁴ prepared for the proposed project.

a. *Would the project have a substantial effect on a scenic vista?*

A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Aesthetic components of a scenic vista generally include: (1) scenic quality, (2) sensitivity level, and (3) view access. The area surrounding the project site is rural and is primarily characterized by open space and the North Fork Stanislaus River channel and its associated riparian vegetation. Development in the project vicinity includes local roads, parking areas, trails, and picnic areas. The proposed bridge deck replacement and roadway improvement project would be consistent with the land uses within the project corridor and nearby vicinity.

The project site is visible from Big Trees Parkway and Forest Route 5N18, a nearby parking lot, and from portions of the North Fork Stanislaus River that are used for picnicking, hiking, rafting, and fishing. Views from the nearby River Picnic Area and River Canyon Trail are largely obstructed due to the dense tree cover in the project site and surrounding area. Although the nearby open space, which consists of dense coniferous forest, is visible from the project site, the proposed bridge replacement and roadway improvements would not alter the existing views. The proposed project and adjacent land have no locally designated scenic resources; though both Calaveras and Tuolumne

⁴ LSA Associates, Inc. (LSA). 2024a. *Big Trees Parkway Bridge Deck Replacement (Bridge No. 30P-0001) Visual Impact Assessment Memorandum*. February.

Counties include goals aimed at protecting natural landscapes, such as that in the project site, there are no specifically protected views in the project site and surrounding area. Furthermore, the proposed project and adjacent land have no federally designated scenic resources and are not located within a Scenic Corridor, and Big Trees Parkway and Forest Route 5N18 are not designated as a Scenic Highway or a Scenic Resource.^{5,6}

Implementation of the proposed project would not result in a substantial adverse effect on a scenic vista. **No impact** would occur, and no mitigation is required.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The Caltrans Landscape Architecture Program administers the Scenic Highway Program contained in Streets and Highways Code Sections 260–263. Portions of State Route (SR) 4 within Calaveras County have been designated as a State Scenic Highway and SR 49 is eligible for State Scenic Highway designation.⁷ There are three highways within Tuolumne County that are eligible for State Scenic Highway Designation: SRs 49, 108, and 120.⁸ The nearest State Scenic Highway to the project site is SR 4 in Calaveras County, which is located approximately 2.1 miles west of the project site. However, due to the hilly topography and dense coniferous tree cover, the project site is not visible from SR 4. There are no historic buildings or rock outcroppings on the project site or in the surrounding vicinity. Furthermore, implementation of the proposed project would not result in the removal or damage of any scenic resources. Therefore, implementation of the proposed project would not damage scenic resources within a State or locally designated scenic roadway. **No impact** would occur, and no mitigation is required.

c. In non-urbanized areas, would the project 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?

There are no County-designated scenic resources (vistas) within the boundaries of the proposed project.^{9,10} The project site is in a non-urbanized area in a rural portion the Calaveras Big Trees State Park of southern Calaveras County and northern Tuolumne County crossing over the North Fork Stanislaus River. The visual character of the project site is primarily defined by open space consisting of dense coniferous forest, the North Fork Stanislaus River channel and its associated riparian vegetation, and local roadways and parking areas.

⁵ Tuolumne County Community Resources Agency. 2018. *Tuolumne County General Plan Volume II: Technical Background Report*. August.

⁶ Calaveras County. 2018. *Calaveras County Draft General Plan, SCH#2017012043 Draft Environmental Impact Report*. June.

⁷ Ibid.

⁸ Tuolumne County Community Resources Agency. 2018. Op. cit.

⁹ Ibid.

¹⁰ Calaveras County. 2018. Op. cit.

Although the North Fork Stanislaus River is not designated as a wild and scenic river by the National Wild and Scenic Rivers System, the proposed project is located along the reach of the river from Highland Creek (upstream of the proposed project) to McKays Reservoir (downstream of the proposed project) that is listed in the National River Inventory (NRI), and is therefore considered a candidate for inclusion in the National Wild and Scenic River System.¹¹ The NRI listing for the North Fork Stanislaus River includes potential classifications under the Wild and Scenic Rivers Act of both “Recreational” and “Wild”, and indicates that the reach meets the eligibility criteria, called Outstandingly Remarkable Values (ORVs), for Recreational, Scenic, Wildlife, and Other.

Under the Wild and Scenic Rivers Act, the proposed project could adversely affect the NRI-listed North Fork Stanislaus River if it would:

- Destroy or alter all or part of the free-flowing nature of the river;
- Introduce visual, auditory, or other sensory intrusions which are out of character with the NRI river segment or its setting;
- Result in deterioration of the water quality of the NRI river segment; or
- Result in the transfer or sale of property adjacent to the NRI river segment without adequate conditions or restriction for protecting the river and its environment.

During project construction activities, the visual character of the area would change with the introduction of construction equipment, construction materials, construction equipment staging areas, construction workers, and clearing of vegetation in the North Fork Stanislaus River channel. This change in visual character would be visible to motorists approaching the project site from Big Trees Parkway and users of nearby trails and parking and picnic areas; however, construction activities would be confined to the river overcrossing, roadway approaches, the staging area located in the parking lot adjacent to the project site, and would not degrade the visual characteristics of the open space surrounding the site. Additionally, the change of visual character at the project site during construction would be temporary in nature and would be returned to preconstruction conditions after completion of the proposed project.

The existing bridge was built in 1959 and measures 36 feet wide by 236 feet long. The existing bridge consists of two 14-foot travel lanes, two 4-foot sidewalks on each side of the bridge, and timber guardrails. The project would replace the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system. The existing deck of the three-span bridge would be rehabilitated through deck replacement. Therefore, the vertical profile would be similar to the existing profile. Existing 4-foot sidewalks located on the north and south side of the bridge would be removed and a 6-foot sidewalk on the south side of the bridge would be constructed. The project would also replace the existing timber guardrail with a new MASH-compliant guardrail. The proposed bridge would be 236 feet long and 36 feet wide including barriers, two 13-foot travel

¹¹ United States Department of the Interior, National Park Service. 2022. Nationwide Rivers Inventory. Website: <https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm> (accessed December 4, 2023).

lanes, 2-foot-wide MASH-compliant barriers on both sides of the bridge, and the 6-foot sidewalk on the south side of the bridge. The crosswalk on the west side of the bridge would be restriped, and a new crosswalk on the east side of the bridge would be striped to accommodate pedestrian traffic. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, and seismic retrofit of the pier foundations. Implementation of the proposed project would be confined to the river overcrossing and roadway approaches and would not degrade the visual characteristics of the open space surrounding the site.

Once construction is complete, the proposed project would not create any new adverse visual impacts within or adjacent to the project site that have not been previously introduced by the existing bridge. The proposed project would not significantly increase the bridge or roadway footprint on the surrounding landscape. In addition, the project would not change the use, function, or scenic values associated with adjacent properties. Though visual intrusions (as well as auditory intrusions) would occur during construction of the proposed project, these intrusions would be temporary (over the construction period) and minor, as discussed above. Once work is complete, the proposed project would not introduce visual, auditory, or other sensory intrusions that are out of character with the river or its setting. The proposed project would not result in the transfer or sale of any property adjacent to the North Fork Stanislaus River. Additionally, as discussed in Section 3.10 of this document, implementation of the proposed project would not destroy or alter any part of the free-flowing nature of the river, nor would it result in the degradation of the water quality of the NRI-listed North Fork Stanislaus River, and storm water from the project site would not adversely affect any other waters in or associated with Calaveras Big Trees State Park and the surrounding wilderness area. Therefore, the proposed project would not have an adverse effect on the NRI-listed North Fork Stanislaus River under the Wild and Scenic Rivers Act.

Additionally, reopening of the currently closed lane and removal of the orange barriers and other associated lane closure items would increase the intactness and unity of the landscape surrounding the project site. Therefore, implementation of the proposed project would not adversely affect a scenic vista, nor would it substantially degrade the existing visual character or quality of public views of the site and its surroundings. As such, impacts would be **less than significant**, and no mitigation is required.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The proposed project site is located in a rural area of Calaveras Big Trees State Park within Calaveras and Tuolumne Counties with minimal existing sources of light and glare. Existing sources of light and glare include headlights/taillights of vehicles traveling along Big Trees Parkway and Forest Route 5N18. No new permanent source(s) of light or glare would be introduced as part of the proposed project. All temporary construction-related sources of light or glare (i.e., construction equipment headlights/safety lights) would cease following completion of construction. Replacement of the bridge deck would not generate any additional traffic that could increase light or glare in the rural area. The proposed project would therefore not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. As such, impacts would be **less than significant**, and no mitigation is required.

3.2 AGRICULTURE AND FORESTRY 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 (CAL FIRE) 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
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?	☐	☐	☒	☐

3.2.1 Impact Analysis

- a. *Would the project 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?*

The Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) reports biannually on the conversion of farmland and grazing land and compiles important farmland maps and data for each county within the State. These maps categorize land use into the following nine categories to describe farmland and non-farmland:

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland

- Farmland of Local Importance
- Grazing Land
- Urban and Built Up Land
- Other Land
- Water
- Area Not Mapped

Per the *State CEQA Guidelines*, impacts to the following Important Farmland categories must be evaluated:

- **Prime Farmland** is irrigated land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields.
- **Unique Farmland** is land with lesser-quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California.
- **Farmland of Statewide Importance** is irrigated land similar to Prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland.
- **Farmland of Local Importance** is land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

The proposed project site and surrounding areas are not designated as an Important Farmland category (i.e., Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance) according to the FMMP. The project site and surrounding areas are designated as Area Not Mapped according to the FMMP.¹² Furthermore, the project site and surrounding area is densely forested and not suitable for agricultural use. As such, implementation of the proposed project would not convert Important Farmland to non-agricultural use. **No impact** would occur, and no mitigation is required.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Land to the west of the bridge is zoned Recreation (REC) per the Calaveras County Zoning Map and land to the east of the bridge is zoned Open Space (O) per the Tuolumne County Zoning Map. The intent of the REC district is to serve as a zone for local and visitor-oriented recreation activities. The intent of the O district is to protect the public in areas not suitable for development because of flooding or other natural hazards and to provide areas of open space for the protection of wildlife

¹² California Department of Conservation. 2016. *California Important Farmland Finder*. Website: <https://maps.conservation.ca.gov/dlrp/ciff/> (accessed October 4, 2022).

habitat and scenic quality where vegetation removal may be appropriate in certain instances or for the preservation of cultural resources.

The California Land Conservation Act of 1965 (the Williamson Act) is a voluntary program that incentivizes the preservation of farmland. The project site and surrounding area is densely forested and not suitable for agricultural use and is not under a Williamson Act contract.^{13,14}

The proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act Contract. There would be **no impact**, and mitigation is not required.

- c. Would the project 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))?*

Land to the west of the bridge is zoned Recreation (REC) per the Calaveras County Zoning Map and land to the east of the bridge is zoned Open Space (O) per the Tuolumne County Zoning Map. Commercial growing and harvesting of timber is not permitted in the REC zone within Calaveras County but is conditionally permitted in the O zone of Tuolumne County if it is found that the use does not conflict with the scenic or wildlife habitat value of the parcel or the preservation of cultural resources, or cause additional flooding, drainage or fire hazards. However, according to established Watercourse and Lake Protection Zones per the California Forest Practice Rules, timber harvesting would not be allowable within the majority of the project footprint due to its proximity to the North Fork Stanislaus River. Therefore, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production. Implementation of the proposed project would result in **no impact** to forest land, and no mitigation is required.

- d. Would the project result in the loss of forest land or conversion of forestland to non-forest use?*

The proposed project is located in a densely forested area and would require the removal of up to 100 feet of vegetation 3 feet wide using hand tools to clear access pathways leading to the interior piers. The proposed vegetation removal would be minimal and would avoid impacts to mature trees to the greatest extent feasible. The proposed project would result in no changes to the existing land use. Therefore, implementation of the proposed project would not result in the loss of forest land or the conversion of forestland to a non-forest use. Impacts would be **less than significant**, and no mitigation is required.

- e. Would the project 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?*

¹³ Calaveras County. 2018. Op. cit. Figure 4.2-1 Williamson Act Contracts in Calaveras County.

¹⁴ Tuolumne County. 2018. *Draft Recirculated Environmental Impact Report for the Tuolumne County General Plan Update Project, State Clearinghouse No. 2015082027*. Exhibit 3.2-1 Williamson Act Contract Lands. August

As previously discussed, the project site and surrounding area is densely forested and not suitable for agricultural use. The proposed project would result in no changes to the existing land use. Although the site is densely forested, it is used for recreational and open space purposes and would not result in a conversion of forest land to non-forest use. Impacts would be **less than significant**, and no mitigation is required.

3.3 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.

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

3.3.1 Impact Analysis

The project site is within the jurisdiction of the Calaveras County Air Pollution Control District (CCAPCD), which regulates air quality in the Calaveras County portion of the Mountain Counties Air Basin (MCAB), and the Tuolumne County Air Pollution Control District (TCAPCD), which regulates air quality in the Tuolumne County portion of MCAB. MCAB is an approximately 11,000-square-mile area that encompasses Amador, Calaveras, Mariposa, Nevada, Plumas, Sierra, and Tuolumne Counties, as well as portions of El Dorado and Placer Counties. Most of the MCAB is located in the northern Sierra Nevada, although the western boundary of the MCAB extends into the Sacramento Valley.

The general climate of the MCAB varies considerably with elevation and proximity to mountains. The mountains and hills are primarily responsible for wide variations in rainfall, temperatures, localized wind patterns, and localized inversion layers that occur throughout the region. The temperature variations have a significant influence on wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry within the MCAB. Climates vary from alpine in the eastern areas to more arid at the western edge of the MCAB. Relatively few sources of air quality emissions are located within MCAB. However, for counties within MCAB, including both Calaveras and Tuolumne Counties, air quality impacts occur through the transport of air quality pollutants from the more developed Central Valley upwind to these mountain counties. Therefore, while sources of emissions within Calaveras and Tuolumne Counties may be limited, the overwhelming transport into these counties of emissions from other areas can negatively impact air quality within these and other MCAB counties. The most visible impacts to air quality originating within CCAPCD and TCAPCD jurisdictions are the result of open burning of vegetation related to property owners, woodstoves, industrial activities, and State agency activities.

Both the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. The federal standards are divided into primary standards, which are designed to protect the public health, and secondary standards, which are designed to protect the public welfare. The ambient air quality standards for each contaminant represent safe levels that avoid specific adverse health effects. Pollutants for which air quality standards have been established are called “criteria” pollutants.

Both Calaveras and Tuolumne Counties have been designated as a non-attainment area for the State and federal ozone standards, and Tuolumne County has been designated as a non-attainment area for the State particulate matter less than 10 microns in size (PM₁₀) standard.¹⁵ Designations for the other ambient air quality standards within Calaveras and Tuolumne Counties are unclassified or attainment. To become designated as a non-attainment area for the State and federal standards, there must be at least one monitored violation of the ambient pollutant standards within the area's boundaries. An area is designated in attainment of the State standard if concentrations for the specified pollutant are not exceeded. An area is designated in attainment for the federal standards if concentration for the specified pollutant is not exceeded on average more than once per year. CCAPCD and TCAPCD manage air quality in each county through education and enforcement of air district rules and CARB measures and regulations.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The project would not conflict with any applicable air quality plan. No new lanes are proposed and no changes to traffic volumes or flow would take place with implementation of the project. Limited, temporary, on-site construction activities would occur within the boundaries of the existing site. Construction would include demolition, site preparation, and construction of the replacement bridge and associated improvements. These construction activities are not substantial or prolonged enough to create emissions that would violate applicable air quality standards or substantially contribute to an existing or projected air quality violation.

Although both Calaveras and Tuolumne Counties are in non-attainment areas for Ozone under the National Ambient Air Quality Standards (NAAQS), and Calaveras County is a non-attainment area for PM₁₀ under California Ambient Air Quality Standards (CAAQS),¹⁶ the project would not result in any permanent changes in traffic patterns that would result in increased emissions. The rehabilitation and strengthening of the existing bridge would not worsen existing conditions, nor would it result in any additional permanent changes in emissions. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be **less than significant**, and no mitigation is required.

¹⁵ United States Environmental Protection Agency (USEPA). 2025. Green Book. California Nonattainment/Maintenance Status for Each County by Year for all Criteria Pollutants. February. Website: https://www3.epa.gov/airquality/greenbook/anayo_ca.html (accessed March 2025).

¹⁶ Ibid.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The project is in an area of non-attainment for 8-hour ozone under the NAAQS for both Calaveras and Tuolumne Counties; the area is in attainment or unclassified for the other criteria pollutants under NAAQS.¹⁷ Under the CAAQS, the project is located in an area that is in non-attainment for 1-hour ozone, 8-hour ozone, and partially located in an area that is in non-attainment for PM₁₀; it is in attainment or is unclassified for all other pollutants.¹⁸ The proposed project would not increase capacity, vehicle miles traveled, or vehicle hours traveled. The only increase in pollutants would be during construction, and these potential impacts, which would be short term, would not be considered cumulatively significant. The proposed project would rehabilitate and strengthen the existing bridge and therefore would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment. Impacts would be **less than significant**, and no mitigation is required.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors include those individuals within the population that have an increased sensitivity to air pollution or environmental contaminants. They include children, the elderly, and those with pre-existing serious health problems affected by air quality, and sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residences. The proposed project is in a rural area, with no sensitive receptors within 0.5 mile of the proposed project site.

Construction activities would create temporary emissions of dust and construction equipment exhaust. However, these activities are not considered to be significant and are temporary in nature. Dust generated by site preparation and construction would result in a temporary, local impact, limited to areas of construction. Dust control practices would be incorporated into the project to minimize this potential impact. The dust control practices would comply with the current Caltrans' Standard Specifications. Best Management Practices (BMPs) would be included in the construction specifications to ensure that temporary increases in fugitive dust and other emissions would be minimized to the greatest extent possible during construction. Standard air quality BMPs may include reducing idling time for vehicles, use of watering trucks, and limiting grading and earth-moving during windy periods. The construction contractor shall comply with Caltrans' Standard Specifications 14-9.02, which requires compliance with all applicable air quality laws and regulations, including local and air district ordinances and rules. The proposed project would reinforce the existing bridge and would therefore not be capacity-increasing, and therefore is not expected to result in an increase in operational emissions. For these reasons, the proposed project

¹⁷ United States Environmental Protection Agency (USEPA). 2025. Green Book. California Nonattainment/Maintenance Status for Each County by Year for all Criteria Pollutants. February. Website: https://www3.epa.gov/airquality/greenbook/anayo_ca.html (accessed March 2025).

¹⁸ Ibid.

would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be **less than significant**, and no mitigation is required.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The operation of construction equipment may result in emissions of diesel or gasoline that could have an odor; however, these emissions would be short-term and temporary in nature. Upon rehabilitation and strengthening of the bridge, the proposed project would not result in any emissions, including those that may cause objectionable odors that would affect a significant number of people. Impacts would be **less than significant**, and no mitigation is required.

3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
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?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

This section uses information and analysis from the Natural Environment Study (LSA 2024c) to describe existing biological resources in the project site, including potentially occurring special-status species, sensitive natural communities, and jurisdictional features; identify potential impacts to biological resources associated with implementation of the proposed project; and recommend mitigation measures, where required, to reduce potential impacts to a less than significant level.

To assess the presence of special-status plant and wildlife species potentially occurring within the project site and the vicinity, the California Natural Diversity Database,¹⁹ the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Trust Resources Report,²⁰

¹⁹ California Department of Fish and Wildlife (CDFW). 2023. Special Animals List. Biogeographic Data Branch, California Natural Diversity Database. October 2023.

²⁰ United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation Online Project Planning Tool. Website: <https://ecos.fws.gov/ipac/> (accessed May 10, 2024).

California Native Plant Society (CNPS) Online Inventory,²¹ and the National Marine Fisheries Service (NMFS) Google Earth Species list²² were reviewed.

After reviewing the above sources, a general biological survey and vegetation mapping of the site was conducted by LSA on May 11 and May 12, 2022, to identify plant and wildlife species on site, assess habitat quality for special-status species, and identify other sensitive biological resources such as jurisdictional waters or wetlands, sensitive natural communities, and/or nest sites for raptors and other native birds. A late season botanical survey was conducted on August 11, 2022.

Plant taxonomy and nomenclature in this document follows *The Jepson Manual: Vascular Plants of California*, Second Edition²³ and the Jepson Online Interchange for California Floristics.²⁴

Natural Communities. Undeveloped land within the project site is composed of three natural communities: (1) Sierra mixed conifer forest, (2) riverine, and (3) a roadside drainage. Natural communities within the project site are shown in Figure 5 of the Natural Environment Study (Appendix A).

Sierra Mixed Conifer Forest. Sierra mixed conifer forest, also referred to as Ponderosa pine – Incense cedar – Douglas fir forest and woodland (*Pinus ponderosa* – *Calocedrus decurrens* – *Pseudotsuga menziesii* Forest and Woodland Alliance) in *A Manual of California Vegetation*,²⁵ is dominated by a variety of coniferous trees including ponderosa pine (*Pinus ponderosa*), incense cedar (*Calocedrus decurrens*), and white fir (*Abies concolor*). This community is defined by ponderosa pine, incense cedar, and/or Douglas fir dominants or co-dominants with greater than 60 percent relative cover in the tree canopy. This community has a state rarity ranking of S4 (Apparently Secure) and is therefore not considered a sensitive natural community.

Other species present in the overstory included black oak (*Quercus kelloggii*), sugar pine (*Pinus lambertiana*), and interior live oak (*Quercus wislizenii*). During the field survey, the understory was dominated by a variety of native perennial forbs including mountain misery (*Chamaebatia foliolosa*), silver bush lupine (*Lupinus albifrons*), Wheeler’s bluegrass (*Poa wheeleri*), Spanish lotus (*Acmispon americanus*), and groundsmoke (*Gayophytum sp.*).

Sierra mixed conifer forest, totaling approximately 1.086 acres, occurs throughout the project site, surrounding the roadways and other developed areas.

LSA biologist and ISA certified arborist WE-12612-A Anna Van Zuuk conducted a tree inventory of the project site on May 12, 2022. The tree inventory included all trees within the project site

²¹ California Native Plant Society (CNPS). 2023. Inventory of Rare and Endangered Vascular Plants of California - Online Edition V9.5. Records search executed October 23, 2023. Sacramento, California.

²² National Marine Fisheries Service. (NMFS). 2024. Online Species Search (accessed May 10, 2024).

²³ Baldwin, Bruce G. et. al., ed. 2012. *The Jepson Manual: Vascular Plants of California*, Second Edition. University of California Press.

²⁴ Jepson Online Inventory for California Floristics (eds.) 2023. Jepson eFlora. Website: <http://ucjeps.berkeley.edu/eflora/> (accessed May 10, 2024).

²⁵ Sawyer, John O., T. Keeler-Wolf, and J.M. Evans. 2009. *A Manual of California Vegetation*: Second Edition. California Native Plant Society. Sacramento, CA.

that were six inches diameter at breast height (DBH) or larger. Data collected during the inventory-included species, diameter at breast height, and relative condition. The tree inventory is included in Appendix E of the Natural Environment Study, which is included as Appendix A of this document.

Riverine. The riverine community, totaling approximately 0.206 acre, is limited to the active channel of the North Fork Stanislaus River. This community consists of unvegetated, open water areas of the river and is surrounded by granite boulders and slabs. Small benches of deposited sand exist both upstream and downstream of the project site; small depressions in the granite are also filled with sand. Approximately 0.089 acre of the riverine community is shaded by the bridge structure. Riverine communities are considered sensitive under CEQA and are regulated by the United States Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW).

Roadside Drainage. The roadside drainage, totaling approximately 0.004 acre, is located on the southern side of Big Trees Parkway at the northwestern corner of the parking lot. This community consists of a small number of hydrophytic forbs including common bog rush (*Juncus effusus*), yellow monkeyflower (*Erythranthe guttata*), brown sedge (*Carex subfusca*), and cinquefoil (*Drymocallis* sp.). Although this small, vegetated drainage is dominated by hydrophytic plant species, soils within the drainage consist of an accumulation of deicing sand and sediment from nearby hillsides over top of the road surface. As such, this community is very ephemeral and is not identifiable during the warmer summer months.

Developed Areas. Developed areas in the project site total approximately 1.111 acre and consist of Big Trees Parkway, a paved parking lot west of the North Fork Stanislaus River, and associated structures (e.g., bathrooms, benches, and picnic tables).

Common Animal Species. The sections below discuss common animal species observed or expected to occur within the project site.

Mammals. One mammal species was observed in the project site during field surveys: western gray squirrel (*Sciurus griseus*). Common mammal species that may also occur in the project site include Virginia opossum (*Didelphis virginiana*), mule deer (*Odocoileus hemionus*), gray fox (*Urocyon cinereoargenteus*), yellow-pine chipmunk (*Neotamias amoenus*), and striped skunk (*Mephitis mephitis*).

Birds. Birds observed in the project site during field surveys included Stellar's jay (*Cyanocitta stelleri*), chickadee (*Poecile* sp.), and osprey (*Pandion haliaetus*). One osprey nest was located approximately 250 feet southeast of the biological survey area. Common bird species that may also occur in the project site include red-shouldered hawk (*Buteo lineatus*), long-eared owl (*Asio otus*), oak titmouse (*Baeolophus inornatus*), and mountain bluebird (*Sialia currucoides*).

Amphibians and Reptiles. Chorus frog tadpoles (*Pseudacris sierra*) were observed in the project site. Common amphibian and reptile species that could occur in the project site include western toad (*Anaxyrus boreas*), western rattlesnake (*Crotalus oreganus*), common garter snake (*Thamnophis sirtalis*), and western fence lizard (*Sceloporus occidentalis*).

Wildlife Migration Corridors. Wildlife migration corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife migration corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another in order to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife migration corridors generally include riparian zones and similar linear expanses of contiguous habitat.

During the field surveys, there was no substantial evidence that any portion of the project site is used as a wildlife migration corridor. However, rivers and other linear water features are often used as a movement corridor for smaller species of wildlife in the local vicinity. In addition, the Stanislaus River is known to support anadromous salmonids and thus, serves as a migration corridor for these fish species.

Aquatic Resources. Aquatic features within the project site consist of the North Fork Stanislaus River and a roadside drainage. The roadside drainage collects local runoff and flows generally east into a culvert before discharging into the North Fork Stanislaus River. The North Fork Stanislaus River flows generally southwest and converges with the Middle Fork Stanislaus River approximately 9.5 miles downstream. The Stanislaus River ultimately flows into New Melones Lake an additional 11.5 miles downstream. A total of 0.210 acre of aquatic features were mapped in the project site, consisting entirely of non-wetland waters.

Potential waters of the United States (waters of the U.S.) affected by the project are regulated by the USACE under Section 404 of the Clean Water Act (CWA). Discharges into waters of the State under Section 404 of the CWA also require a Water Quality Certification from the RWQCB, pursuant to Section 401 of the CWA. Waters of the State, and project impacts to waters of the State, would be the same as for waters of the U.S. Both the roadside drainage and the North Fork Stanislaus River include potential waters of the U.S. within the project site.

Invasive Species. Many non-native species have been part of the California landscape for the past 150 years. The California Invasive Plant Council ranks species based on their impacts to ecological processes, plant and animal communities, vegetation structure, and their ability to disperse and establish. Some of these introduced species are considered highly invasive, such as giant reed (*Arundo donax*) and Himalayan blackberry (*Rubus armeniacus*), while other species are moderately invasive, such as ripgut brome (*Bromus diandrus*), tree of heaven (*Ailanthus altissima*), and wild oat (*Avena fatua*).

Four introduced plant species with invasive ratings designated by the California Invasive Plant Council were observed during surveys, including cheatgrass (*Bromus tectorum*), common sheep sorrel (*Rumex acetosella*), English plantain (*Plantago lanceolata*), and rose clover (*Trifolium hirtum*). These invasive species may have minor effects on the landscape but are not known to cause substantial impacts that would require eradication.

Essential Fish Habitat. The reach of the North Fork Stanislaus River in the project site is not designated as essential fish habitat (EFH).

Special-Status Species. For the purposes of this analysis, special-status resources are defined as follows:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); species that are under review may be included if there is a reasonable expectation of listing within the life of the project.
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA).
- Species designated as Fully Protected or Species of Special Concern by CDFW.
- Plant species with a California Rare Plant Rank (CRPR) in categories 1, 2, 4.1, or 4.2.
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance or local policy.
- Sensitive natural communities as defined by the CDFW or by local agencies.

The following includes a description of special-status plant and wildlife species that potentially occur within the project site and vicinity. Special-status plant and wildlife species, and the potential for occurrence on and in the vicinity of the site are also identified in Table A.

Plants. Based on the results of the database search and literature review, 42 special-status plant species were identified as potentially occurring in the project site and vicinity. Following review of habitat requirements for each species and observations made during the field surveys, three special-status plant species were confirmed as potentially occurring in the project site and vicinity. Suitable habitat is present in mixed conifer forest in the project site, which is dominated by yellow pine (i.e., *Pinus ponderosa*), for the following special-status plant species: Small's southern clarkia (*Clarkia australis*), Sierra clarkia (*Clarkia virgata*), and Tuolumne fawn lily (*Erythronium tuolumnense*). Several Clarkia seedlings and one *Erythronium* plant were noted during initial surveys but were not relocated for positive identification during the late season survey.

Wildlife and Invertebrates. Based on the results of the database search and literature review, 26 special-status wildlife species were identified as potentially occurring in the project site and vicinity. Following review of habitat requirements for each species and observations made during the field surveys, six special-status wildlife and invertebrate species were confirmed as potentially occurring in the project vicinity, shown in Table A.

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Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
Natural Communities of Special Concern					
----	Big Trees Forest	----	This habitat is dominated by giant sequoia (<i>Sequoiadendron giganteum</i>) only on the western slopes of the Sierra Nevada Mountains in generally humid areas of mountain canyons characterized by dry summers and snowy winters. Giant sequoias generally occur on the south-facing sides of northern mountains, and on the northern faces of more southerly slopes.	A	There are no giant sequoias in the project site. This community is not present in the project site.
Mammals					
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	CSC	Occurs in a variety of habitats including valley oak savannah, riparian forest, and prairie. Foraging habitat includes edges along streams adjacent to and within a variety of wooded habitats in addition to open areas such as pastures. Small moths and beetles are the primary food sources and are captured in flight or by gleaning from foliage. Roosts in caves, tunnels, buildings, mines, or other human-made structures, such as bridges. Requires roosting, maternity sites free from human disturbance.	HP	Potential roosting and foraging habitat are present. However, this species is highly sensitive to disturbance at roosting sites. Daytime vehicle and pedestrian traffic would deter this species from utilizing the bridge. Therefore, this species is not expected to occur.
<i>Erethizon dorsatum</i>	North American porcupine	CA SA	Most common in montane conifer, Douglas fir, alpine dwarf shrub, and wet meadow habitats. Requires forests with a good understory of herbs, grasses, and shrubs and prefers open stands of conifers. Uses meadows, brushy and riparian habitats for feeding. Dens are made in caves, crevices in rocks, cliffs, hollow logs, snags, burrows of other animals, or dense foliage in trees if other sites are unavailable. Ground cover and density of predators determines amount of time spent on the ground for foraging.	A	While the rocky banks of the North Fork Stanislaus River could support potential denning, there is no meadow or riparian habitat in the project site for foraging. Therefore, this species is not expected to den in the project site. No further discussion is necessary.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Euderma maculatum</i>	Spotted bat	CSC	Found mostly in the foothills, mountains, and desert regions of southern California in arid deserts, grasslands, and mixed conifer forests. Prefers roosting in rock crevices on cliffs but occasionally found in caves and buildings. Feeds over water and along washes.	A	No cliffs or caves suitable for roosting are present in the project site. This species is not expected to occur. No further discussion necessary.
<i>Pekania pennanti</i> <i>southern Sierra DPS</i>	Pacific fisher	FE, CSC	Found in intermediate to large-tree stages of coniferous forest and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs, and rocky areas for cover and denning. Requires large areas of mature dense forest. Only two native populations survive in California, one near the California-Oregon border and one in the southern Sierra Nevada. This species has only been seen in Mariposa, Madera, Fresno, Tulare and Kern counties, California.	A	The project site is outside of the federally recognized range for fisher but is within the range and mapped predicted habitat identified by the CDFW. Numerous opportunities for cover and denning are present within the project site, though many are along the river and would be subject to flooding during rain events and snow melt. However, forest habitat within the project site has a fairly open canopy. The area is also frequented by members of the public, with public facilities (parking area, restrooms) and hiking trails present in the project site. Thus, fishers are likely to avoid the area. No further discussion is necessary.
Birds					
<i>Accipiter gentilis</i>	Northern goshawk	CSC	Nesting habitat can range from sea level to alpine settings, usually dense, mature, old-growth conifer and deciduous forests. Requires nests near forest edge or openings. It typically hunts from perches, primarily for birds but may also eat small mammals. It typically nests on north-facing slopes near water.	HP	Suitable nesting and foraging habitat are present. The project site contains old growth mixed conifer forest that may be suitable for nesting, and forest edges over open water may be suitable for foraging. There is a CNDDDB record of this species nesting approximately 3.5 miles south of the project site. This species could occur in the project site.
<i>Accipiter striatus</i>	Sharp-shinned hawk	SWL	Nesting habitat consists of dense forests, ideally with a closed canopy. Typically found in fir and pine forests, or aspen groves, with at least a 60% closed canopy. Hunts in forests along riparian corridors, or open habitat.	HP	Suitable nesting and foraging habitat are present. The project site contains mixed conifer forest with a closed canopy. The closest CNDDDB occurrence is over 10 miles away. This species could occur in the project site.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Falco peregrinus anatum</i>	American peregrine falcon	FP	Forages in marshes and grasslands near lakes and rivers. It primarily preys on other birds but will also take mammals, insects, and fish. It requires protected cliffs and ledges for cover and breeds mostly in woodland and forest habitats, most commonly in riparian and wetland habitats. Nesting habitat includes high, protected cliffs and ledges near water. Breeding habitats include cliffs, tall buildings, or tall bridges.	A	No suitable breeding or foraging habitat is present in the project site. This species is not expected to occur.
<i>Pandion haliaetus</i>	Osprey	SWL	Habitat includes expanses of shallow, fish-filled water, including rivers, lakes, streams and ponds. Nesting habitat must be within 12 miles of accessible fish. Nest sites are generally in areas with open surroundings for easy approach.	HP	Suitable habitat is present in the project site. The North Fork Stanislaus River is a suitable source of fish and large conifers provide suitable nesting habitat. There is also a recorded CNDDDB nesting occurrence approximately 0.9 mile south of the project site.
<i>Strix nebulosa</i>	Great gray owl	SE	A rarely seen resident at 4,500–7,500 ft. Breeds in old growth red fir, mixed conifer, or lodge pole pine habitats, always in the vicinity of wet meadows. Forages in wet meadows from low, exposed perches and nests and roosts in nearby dense coniferous forest. Both old growth and second growth forest used if suitable nest sites are available. Nests in large, broken-topped snags, usually greater than 24 inches DBH and within 861 ft of a wet meadow.	A	No suitable habitat present. Although the project site contains suitable mixed conifer forests there are no wet meadows within 1,000 ft of the project site.
<i>Strix occidentalis occidentalis</i> <i>Sierra DPS</i>	California Spotted owl	PFT, CSC	Requires large blocks of mature forest with permanent water and suitable nesting trees and snags. Broadleaved upland forest, lower and upper montane conifer forests; often with an understory of black oaks and other deciduous hardwoods; canopy closure >40%; northern California associated with dense	HP	Suitable nesting and foraging habitat present. Multiple observations in vicinity, including an active nest site observed in 2022 approximately 0.5 mile from the project site (observation ID 196461). This species could occur in the project site.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
			old-growth forests; southern California associated with mixed oak and oak-conifer forests; elevation from sea level to 7,600 ft; most often found in deep-shaded canyons, on north-facing slopes, and within 980 ft of water. Feeds primarily on small mammals but will also eat birds, bats, and large arthropods. Nests in a tree or snag cavity or in broken top of large tree; less often in mistletoe clump.		
Reptiles					
<i>Actinemys marmorata</i>	Northwestern pond turtle	PFT	Occurs in permanent or nearly permanent water sources, ponds, marshes, rivers, streams and irrigation ditches with emergent vegetation and basking sites. Lay eggs in upland habitat consisting of sandy banks or grassy, open fields.	A	No suitable habitat present. The project site contains one permanent water source (North Fork Stanislaus River) which is a fast-moving water body that does not support emergent vegetation. No basking sites or upland habitats suitable for egg laying are present.
Amphibians					
<i>Ambystoma macrodactylum sigillatum</i>	Southern long-toed salamander	CSC	Found at very high elevations in the Sierra Nevada mountains from Tuolumne County in the vicinity of the Stanislaus River north through the mountains and east of the Cascades in Modoc and Lassen Counties. Preferred habitats include yellow pine, mixed conifer, and red fir forests associated with wet meadows. Adults are subterranean for the majority of the year, utilizing mammal burrows, rock fissures, and occasionally human-made structures. May be found under surface objects such as rocks or logs during breeding migrations once springtime temperatures are warm enough to reduce snow cover and open ponds. Breeds in shallow water less than 12 inches in depth and utilizes clumps of vegetation or other	A	No suitable habitat present. Though the project site contains mixed conifer forest, no wet meadows occur in the vicinity and the reach of the North Fork Stanislaus River in the project site does not contain shallow, slow-moving pools suitable for breeding. The project site is also located below the known elevational range for this subspecies.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
			debris such as logs or bark for egg laying and larval cover.		
<i>Rana boylei</i> <i>south Sierra DPS</i>	Foothill yellow-legged frog	FE, SE	Found in the Sierra Nevada Mountains from the South Fork American River subbasin (HU 8) in El Dorado County south to Tehachapi Mountains in Kern County. Requires partly shaded, shallow streams and riffles with a rocky (at least some cobble-sized) substrate for egg-laying, and with water for at least 15 weeks until metamorphosis. Uses watercourses for movement and rarely moves more than 40 ft from the stream channel.	HP	The North Fork Stanislaus River provides suitable habitat for this species. The closest CNDDDB occurrence is located approximately 2.5 miles west (downstream) of the project site. This species could occur in the project site.
<i>Rana draytonii</i>	California red-legged frog	FT, CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Also requires uplands for estivation. Typically found in or near ponds, woodlands, or coastal scrub. Can wander upland and sometimes found in cool, damp places.	A	No suitable habitat present. The project site contains one permanent water source (the North Fork Stanislaus River), which is a fast-moving water body that supports minimal emergent vegetation. This species requires slow-moving ponded areas with vegetative cover, both of which are absent in the project site.
<i>Rana sierrae</i> <i>Sierra DPS</i>	Sierra Nevada yellow-legged frog	FE; ST	Historically found throughout Sierra Nevada Mountains from Plumas County to Fresno County in rocky streambed and wet meadows surrounded by conifer forests. They can be found in streams with high gradients and numerous pools, rapids, and waterfalls as well as streams with low gradients, slow flows, and marshy edges. At higher elevations they are often found in lakes, ponds, and slow-moving streams. The borders of these lakes and ponds are usually grassy or muddy. They breed in shallows of ponds or in inlet streams.	A	The project site is outside the USFWS mapped range of this species. The most recent CNDDDB record is from 2021 and is located approximately 6.6 miles from the project site.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
Invertebrates					
<i>Ammonitella yatesii</i>	Tight coin (Yates' snail)	CA SA	Inhabits limestone caves and outcroppings on north-facing slopes.	A	No suitable habitat present. No caves or limestone rocks in or near the project site.
<i>Banksula tutankhamen</i>	King Tut cave harvestman	CA SA	Known only from the King Tut cave in Calaveras County.	A	The project site is outside the range of this species. Species not present.
<i>Bombus caliginosus</i>	Obscure bumble bee	CA SA	Coastal areas from Santa Barbara County north to Washington State. Utilizes a variety of floral resources but is best suited to open flowers with short corollas such as those in the genera Baccharis, Cirsium, Lupinus, Lotus, Grindelia, and Phacelia.	A	The project is outside the range of this species. The project site is not in a coastal area.
<i>Bombus crotchii</i>	Crotch bumble bee	SC	Historic range included the northern Central Valley to Baja Mexico. Currently persists in southern coastal habitats and some areas to the north and southwest of Sacramento. Inhabits open grassland and scrub habitats. Primarily nests underground. Utilizes a variety of floral resources but is best suited to open flowers with short corollas such as those in the genera Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, and Salvia.	A	No suitable habitat for this species (natural grasslands or scrub habitats) is present within the project site.
<i>Bombus occidentalis</i>	Western bumble bee	SC	Occurs across the western U.S. and southern Canada. In California, its historic range included the northern part of the state, the coastal region, and the mountains. Currently persists at high elevation sites. Nests in colonies of up to 1,500 individuals primarily in underground cavities such as old squirrel or other animal nests and in open west-southwest slopes bordered by trees. Requires adequate nectar and pollen through the colony's life cycle, typically early February – late November. Utilizes a variety of floral resources with open flowers and short corollas but is known to 'nectar rob'. Mostly	A	No suitable habitat is present. The project site does not contain meadows or grasslands and does not support any natural community with abundant floral resources suitable to support a colony.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
			found in meadows and grasslands with abundant floral resources.		
<i>Danaus plexippus</i>	Monarch butterfly	FC	Occurs throughout California wherever milkweed (<i>Asclepias</i> spp.) plants grow. Migration typically occurs September – October. Overwinters along the coast from northern Mendocino to Baja California, Mexico through January – February. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby. Adults breed from June – September and require milkweeds for laying eggs, larval development, and metamorphosis. Adults utilize other flowing species for nectaring during the breeding season.	A	The project site is located outside the overwintering range of this species. Additionally, no milkweeds suitable to support summer breeding for monarchs were identified during surveys.
<i>Margaritifera falcata</i>	Western pearlshell	CA SA	Mollusk found in low velocity perennial waters.	A	The North Fork Stanislaus River is a swift flowing channel and does not provide suitable habitat for this species.
<i>Stygobromus gradyi</i>	Grady's cave amphipod	CA SA	Known only from springs and caves in Amador and Tuolumne Counties.	A	No suitable habitat present. No springs or caves occur within or near project site.
<i>Stygobromus harai</i>	Hara's cave amphipod	CA SA	Found in caves and mine tunnels in the Central California foothills.	A	No suitable habitat present. No caves or tunnels occur within or near project site.
Plants					
<i>Allium sanbornii</i> var. <i>sanbornii</i>	Sanborn's onion	CRPR 4.2	Perennial bulbiferous herb found primarily in northern California in mountainous terrain on serpentine outcrops in yellow pine forest, foothill woodland, and chaparral (985–4,593 ft); known only from small, widely scattered populations. Blooms June–September.	A	No suitable habitat present. The project site does not contain serpentine outcrops. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Allium tribracteatum</i>	Three-bracted onion	CRPR 1B.2	Perennial bulbiferous herb found in the western Sierra Nevada mountains from El Dorado County to Tuolumne County on volcanic slopes in yellow pine forest, red fir forest, and chaparral (4,265–6,234 ft). Blooms March–August.	A	No suitable habitat present. The project site does not contain volcanic slopes. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.
<i>Bolandra californica</i>	Sierra bolandra	CRPR 4.3	Perennial herb found in mesic and rocky sites in montane coniferous forest habitat (3,200–8,040 ft). It occurs mainly in wetlands. Blooms June–July.	A	No suitable habitat present. No wetlands occur in the project site.
<i>Botrychium ascendens</i>	Upswept moonwort	CRPR 2B.3	Perennial rhizomatous herb widely scattered throughout the Sierra Nevada mountains, White mountains, Modoc National Forest, and Angeles National Forest. Occurs in moist meadows and open woodlands near streams or seeps in yellow pine forest habitat (4,921–10,499 ft). Blooms July–August.	A	No suitable habitat present. The project site does not contain moist meadows or other suitable wetlands.
<i>Botrychium crenulatum</i>	Scalloped moonwort	CRPR 2B.2	Perennial rhizomatous herb widely scattered throughout the Sierra Nevada mountains, San Gabriel mountains, White mountains, Cascade Range, and Klamath mountains. Occurs in saturated hard water seeps and stream margins in yellow pine forests (4,921–11,811 ft). Blooms June–September.	A	No suitable habitat present. The project site does not contain hard water seeps other suitable wetlands.
<i>Botrychium minganense</i>	Mingan moonwort	CRPR 4.2	Perennial rhizomatous herb widely scattered throughout the Sierra Nevada mountains, San Gabriel mountains, White mountains, Cascade Range, and Klamath Mountains. Occurs in wetlands in mesic meadows and open yellow pine forests along streams or around seep edges (4,921–10,171 ft). Frequently occurs with <i>B. ascendens</i> , <i>B. crenulatum</i> , or <i>B. montanum</i> ; Blooms July–September.	A	No suitable habitat present. The project site does not contain meadows or other suitable wetlands.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Botrychium montanum</i>	Western goblin	CRPR 2B.1	Perennial rhizomatous herb widely scattered throughout the Sierra Nevada mountains and Cascade Range. Occurs in shady mesic conifer woodlands, meadows, and seeps, especially under <i>Calocedrus</i> along streams (4,921–6,890 ft). Blooms July – September.	A	Negative survey results. Although suitable habitat is present underneath <i>Calocedrus</i> along the North Fork Stanislaus River, no <i>Botrychium</i> species were identified during focused surveys conducted during the normal blooming period.
<i>Brasenia schreberi</i>	Watershield	CRPR 2B.3	Perennial aquatic rhizomatous herb widespread throughout central and northern California. Occurs in ponds, lakes, and slow-moving streams (0– 7,218 ft). Blooms April–October.	A	No suitable habitat present. The project site does not contain slow-moving or standing bodies of water.
<i>Calochortus clavatus</i> var. <i>avius</i>	Pleasant Valley mariposa-lily	CRPR 1B.2	Perennial bulbiferous herb known from the western Sierra Nevada foothills and mountains east of Sacramento. Occurs in open oak or yellow pine forests on Josephine silt loam or volcanic soils (2,953–5,906 ft). Blooms May–July.	A	No suitable habitat present. The project site does not contain Josephine silt loam or volcanic soils. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.
<i>Ceanothus fresnensis</i>	Fresno ceanothus	CRPR 4.3	Occurs on rocky slopes and flats in conifer forests (2,950–6,890 ft). Blooms May–July.	HP	While suitable habitat is present along the rocky slopes of the North Fork Stanislaus River, this species was not identified during focused surveys conducted during the normal blooming period. Since focused survey results were negative, no further discussion is necessary.
<i>Chlorogalum grandiflorum</i>	Red Hills soaproot	CRPR 1B.2	Perennial bulbiferous herb known from western Sierra Nevada foothills and mountains from Placer County to Tuolumne County. Occurs on serpentine outcrops and open, shrubby, or wooded hills in yellow pine forest, foothill woodland, or chaparral (800–4,000 ft). Blooms May–June.	A	No suitable habitat present. The project site does not contain serpentine outcrops. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Clarkia australis</i>	Small's southern clarkia	CRPR 1B.2	Annual herb known from western Sierra Nevada mountains in Tuolumne, Mariposa, and Madera Counties. Occurs in yellow pine forests and foothill woodlands in open rocky soils (2,600– 4,900 ft). Blooms May–August.	HP	Surveys inconclusive. Suitable habitat is present in mixed conifer forest in the project site, which is dominated by yellow pine (i.e., <i>Pinus ponderosa</i>). Several Clarkia seedlings were noted during initial surveys but were not relocated for positive identification during the late season survey.
<i>Clarkia biloba ssp. australis</i>	Mariposa clarkia	CRPR 1B.2	Annual herb known from western Sierra Nevada foothills and mountains in Tuolumne and Mariposa Counties. Occurs in chaparral and cismontane woodlands on serpentine soils. (985– 1,640 ft). Blooms May–June.	A	No suitable habitat present. The project site does not contain serpentine soils. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.
<i>Clarkia virgata</i>	Sierra clarkia	CRPR 4.3	Annual herb known for the Sierra Nevada mountains. Occurs in yellow pine forest and foothill woodlands (1,300–5,250 ft). Blooms May–August.	HP	Surveys inconclusive. Suitable habitat is present in mixed conifer forest in the project site, which is dominated by yellow pine (i.e., <i>Pinus ponderosa</i>). Several Clarkia seedlings were noted during initial surveys but were not relocated for positive identification during the late season survey.
<i>Claytonia crawfordii</i>	Crawford's spring beauty	CRPR 1B.2	Perennial herb known only from western Sierra Nevada mountains in Tuolumne County, in the vicinity of Stanislaus National Forest. Occurs in montane conifer forests in openings on rocky and volcanic soils (5,545– 6,365 ft). Blooms April–May.	A	No suitable habitat present. The project site does not contain volcanic soils. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.
<i>Claytonia parviflora ssp. grandiflora</i>	Streambank spring beauty	CRPR 4.2	Occurs in vernal moist, often disturbed sites (492–3,937 ft). Blooms February– July.	A	No suitable habitat present. There are no seeps or vernal moist areas in the project site. Furthermore, the project site is above the elevation range for this species.
<i>Cuscuta jepsonii</i>	Jepson's dodder	CRPR 1B.2	Parasitic annual herb or vine widely scattered in the Sierra Nevada mountains, North Coast Range, and Klamath mountains. Occurs in oak and pine forests on pinemat (<i>Ceanothus diversifolius</i>) and mahala mat (<i>Ceanothus</i>	A	No suitable habitat present. The project site does not contain <i>C. diversifolius</i> or <i>C. prostratus</i> .

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
			<i>prostratus</i>) along streambanks (3,937– 7,546 ft). Blooms July–September.		
<i>Cypripedium montanum</i>	Mountain lady's-slipper	CRPR 4.2	Occurs in moist areas or dry slopes in yellow pine forest and mixed evergreen forest in wetland-riparian areas (656– 7,218 ft). Blooms March–August.	A	No suitable habitat present. There are no wetland or riparian areas in the project site.
<i>Diplacus pulchellus</i>	Yellow-lip pansy monkeyflower	CRPR 1B.2	Annual herb known from western Sierra Nevada foothills and mountains from El Dorado County to Mariposa County. Occurs in vernal wet depressions or seepage areas usually on clay soils and disturbed areas in yellow pine forests or wetland-riparian areas (1,970–6,560 ft). Blooms April–July.	A	No suitable habitat present. There are no vernal wet depressions or seeps in the project site. The roadside drainage does not support wetlands.
<i>Diplacus pygmaeus</i>	Egg Lake monkeyflower	CRPR 4.2	Found in the southern high Cascade Range, northern high Sierra Nevada region (lake Almanor region and Plumas County), and Modoc Plateau region (Egg Lake in Modoc County and west of Eagle Lake in Lassen County). Occurs in vernal wet depressions or along stream channels in sagebrush scrub, yellow pine forest, and wetland-riparian areas (3,593–5,873 ft). Blooms May–June.	A	The project site is outside the range of this species.
<i>Engellaria</i> (=Stellaria) obtuse	Obtuse starwort	CRPR 4.3	Perennial rhizomatous herb found in various locations in the Sierra Nevada mountains from Lassen County to Tuolumne County. Occurs in mesic wetlands in red fir forests along streambanks (490–7,515 ft). Blooms May–September.	A	No suitable habitat present. There are no wetlands in the project site.
<i>Eriophorum gracile</i>	Slender cottongrass	CRPR 4.3	Occurs in wet meadows and bogs in yellow pine forest, red fir forest, mixed evergreen forest, and wetland-riparian areas (1,969–9,514 ft). Blooms May–September.	A	No suitable habitat present. The project site does not contain wet meadows or bogs.
<i>Eriophyllum confertiflorum</i> var. <i>tanacetiflorum</i>	Tansy-flowered woolly sunflower	CRPR 4.3	Occurs in oak woodlands in the northern and central Sierra Nevada foothills region (1,000–4,400 ft). Blooms May–July.	A	No suitable habitat present. The project site does not contain oak woodlands.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Erythranthe laciniata</i>	Cut-leaved monkeyflower	CRPR 4.3	Occurs in seeps on granite outcrops in yellow pine and red fir forests (0–2,953 ft). Blooms April–August.	A	No suitable habitat present. There are no seeps in the project site.
<i>Erythranthe marmorata</i>	Stanislaus monkeyflower	CRPR 1B.1	Annual herb known from Sierra Nevada foothills and mountains and Sacramento Valley from Amador County to Tuolumne County, and in Fresno County mountains. Occurs in seeps and along streambanks in yellow pine forest (330–2,955 ft). Blooms March–May.	HP	Although suitable habitat is present along the riverbanks, no <i>Erythranthe</i> species were identified during focused surveys conducted during the normal blooming period. Since focused survey results were negative, no further discussion is necessary.
<i>Erythronium tuolumnense</i>	Tuolumne fawn lily	CRPR 1B.2	Perennial bulbiferous herb known only from the western Sierra Nevada mountains in Tuolumne County. Occurs in open woodlands and shady canyons in yellow pine forest, foothill woodland, and chaparral (1,970–3,280 ft). Blooms March–June.	HP	Surveys inconclusive. Suitable habitat is present in mixed conifer forest in the project site, which is dominated by yellow pine (<i>Pinus ponderosa</i>). One <i>Erythronium</i> plant was observed during initial surveys but could not be relocated for positive identification during the late season survey.
<i>Hartmaniella sierrae</i>	Sierra starwort	CRPR 4.2	Perennial rhizomatous herb known from the western Sierra Nevada mountains from Plumas County to Mariposa County. Occurs in chaparral, cismontane woodland, lower montane conifer forest, upper montane conifer forests (4,020–7,200 ft). Blooms May–August.	HP	Although suitable habitat is present, no <i>Hartmaniella</i> species were identified during focused surveys conducted during the normal blooming period. Since focused survey results were negative, no further discussion is necessary.
<i>Horkelia parryi</i>	Parry's horkelia	CRPR 1B.2	Perennial herb known from western Sierra Nevada mountains and foothills from El Dorado County to Mariposa County. Occurs in open chaparral and foothill woodland on lone formation soils (263–2,953 ft). Blooms April–September.	A	Suitable habitat not present. No chaparral or woodlands in the project site. Additionally, there are no lone soils. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Hosackia oblongifolia</i> var. <i>cuprea</i>	Copper-flowered bird's-foot trefoil	CRPR 1B.3	Perennial rhizomatous herb known from southern Sierra Nevada mountains in Tulare and Inyo Counties, and in Calaveras County. Occurs in mesic meadows and seep edges in open pine woodlands (7,874–9,186 ft). Blooms June–August.	A	The project site is well below the elevational range of this species.
<i>Jensia yosemitana</i>	Yosemite tarplant	CRPR 3.2	Occurs in meadows and sandy sites in yellow pine forest (3,937–7,546 ft). Blooms May–August.	A	No suitable habitat present. The project site does not contain sandy meadows.
<i>Jepsonia heterandra</i>	Foothill jepsonia	CRPR 4.3	Occurs in crevices in slate like rock or on dry, rocky slopes in yellow pine forest and foothill woodlands (0–2,300 ft). Blooms August–January.	A	No suitable habitat present. The project site does not contain slate-like rock.
<i>Lewinskya holzingeri</i>	Holzinger's bristle moss	CRPR 1B.3	Moss known from the western Sierra Nevada mountains, Cascades, and Klamath mountains. Occurs on rocks and along streams in cismontane woodland, lower montane coniferous forest, and pinyon and juniper forest (3,937–7,546 ft). Blooms May–August.	HP	Although suitable habitat is present in the project site along the rocky riverbanks, no <i>Lewinskya</i> species were identified during focused surveys conducted during the normal blooming period. Since focused survey results were negative, no further discussion is necessary.
<i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i>	Hutchinson's lewisia	CRPR 3.2	Occurs on decomposed granite, slate, or volcanic rubble in conifer forests (5,906–7,005 ft). Blooms June–August.	A	The project site is below the elevational range of this species.
<i>Lewisia kelloggii</i> ssp. <i>kelloggii</i>	Kellogg's lewisia	CRPR 3.2	Occurs on ridges with decomposed granite, volcanic ash, or rubble in yellow pine or red fir forest (4,495–7,743 ft). Blooms May–August.	A	No suitable habitat present. Although the project site does contain decomposed granite in mixed conifer forest, there are no ridges in the project site.
<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>	Humboldt lily	CRPR 4.2	Perennial bulbiferous herb known mostly from western Sierra Nevada foothills from Tehama to Calaveras County, scattered locations in Santa Barbara (incl. Channel Islands) and Los Angeles Counties. Occurs in openings in yellow pine forest and chaparral (650–3,609 ft). Blooms June–August.	HP	Although suitable habitat is present in the project site, no <i>Lilium</i> species were identified during focused surveys conducted during the normal blooming period. Since focused survey results were negative, no further discussion is necessary.

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
<i>Lomatium stebbinsii</i>	Stebbins' lomatium	CRPR 1B.1	Perennial herb known only from Calaveras and Tuolumne Counties. Occurs on gravelly volcanic and serpentine soil in yellow pine forest and chaparral (4,102–5,577 ft). Blooms March–May.	A	No suitable habitat present. The project site does not contain gravelly volcanic or serpentine soils. Per Web Soil Survey (USDA 2023), the site is underlain with sandy to gravelly loam soils weathered from granite.
<i>Lupinus constancei</i>	Lassics lupine	CRPR 1B.1, FE, SE	Perennial herb endemic and limited to California. This species is isolated in the tiny Lassics Range in the high North Coast Ranges of northwestern California, where it grows on serpentine barrens at 5,000 to 6,000 ft. Blooms in July.	A	The project site is outside the range of this species.
<i>Myrica hartwegii</i>	Sierra sweet bay	CRPR 4.3	Occurs along streambanks and other moist places in foothills or low montane yellow pine forest (984–5,906 ft). Blooms May–June.	HP	Although suitable habitat is present adjacent to the North Fork Stanislaus River within the project site, no <i>Myrica</i> species were identified during focused surveys conducted during the normal blooming period. Since focused survey results were negative, no further discussion is necessary.
<i>Navarretia miwukensis</i>	Mi-Wuk navarretia	CRPR 1B.2	Annual herb known from very few occurrences in the western Sierra Nevada mountains in Calaveras and Tuolumne Counties. Occurs in meadows in lower montane coniferous forest (2,625–4,921 feet). Blooms May–June.	A	No suitable habitat present. There are no meadows in the project site.
<i>Peltigera gowardii</i>	Western waterfan lichen	CRPR 4.2	Aquatic foliose lichen known mostly from the Sierra Nevada mountains from Plumas County to Tulare County and scattered occurrences in the Klamath Mountains. Occurs in riparian forests on rocks in cold water creeks with little or no sediment or disturbance (3,495–8,595 ft).	A	While the cold waters and rocks on the banks of the North Fork Stanislaus River could support this species, the river is annually subject to intense scouring during the rainy season and does not support lichens or other bryophytes. No additional discussion necessary.
<i>Piperia colemanii</i>	Colemans rein orchid	CRPR 4.3	Perennial herb that occurs in open conifer forest and chaparral, usually in sandy soils (3,395–7,545 ft). Blooms June–August.	HP	Although there are sandy soils in the project site, no <i>Piperia</i> species were identified during focused surveys conducted during the normal blooming period. Since focused survey results

Table A: Special-Status Species and Natural Communities Potentially Occurring or Known to Occur in the Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present/Absent	Rationale
					were negative, no further discussion is necessary.

Sources: Compiled by LSA (2024b).

Status Codes

Federal

FE: Federally listed; Endangered

FT: Federally listed; Threatened

FP: Fully Protected

PFT: Proposed Federally Threatened

California Rare Plant Rank:

1A: Plants presumed extirpated in California, either rare or extinct elsewhere

1B: Plants rare, threatened, or endangered in California and elsewhere

2A: Plants presumed extirpated in California but common elsewhere

2B: Plants rare, threatened or endangered in California but common elsewhere

3: Plants about which we need more information; a review list.

4: Plants of limited distribution; a watch list

0.1: Plants seriously threatened in California

0.2: Plants fairly threatened in California

0.3: Plants not very threatened in California

State

ST: State listed; Threatened

SE: State listed; Endangered

SC: State Candidate

SWL: State Watch List

CSC: California Species of Special Concern

CA SA: Special Animal: General term that refers to taxa that the CNDDDB is interested in tracking regardless of legal or protection status. Includes the following categories in addition to those listed above:

Habitat Presence:

HP: Habitat is, or may be present

SP: Species is present

A: No habitat present and no further work needed

CH: Project footprint is located within a designated critical habitat unit.

Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the California Environmental Quality Act Guidelines.

Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring.

Populations in California that may be on the periphery of a taxon's range but are threatened with extirpation in California.

Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.)

Taxa designated as a special-status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO).

The North Fork Stanislaus River, mature trees, and the bridge within and adjacent to the project site provide potential roosting and foraging habitat for Townsend's big-eared bat (*Corynorhinus townsendii*). The project site contains old growth mixed conifer forest that may be suitable for nesting, and forest edges over open water may be suitable for foraging for northern goshawk (*Accipiter gentilis*). The project site contains mixed conifer forest with a closed canopy that provide suitable nesting and foraging habitat for sharp-shinned hawk (*Accipiter striatus*). The North Fork Stanislaus River is a suitable source of fish and large conifers provide suitable nesting habitat for osprey (*Pandion haliaetus*). There is suitable nesting and foraging habitat for California Spotted owl (*Strix occidentalis occidentalis*, Sierra Distinct Population Segment [DPS]) and multiple observations, including observation of an active nest site in 2022, have been made of this species in the project vicinity. The North Fork Stanislaus River provides suitable habitat for foothill yellow-legged frog (*Rana boylei*, south Sierra DPS), and the closest California Natural Diversity Database (CNDDDB) occurrence is located approximately 2.5 miles west (downstream) of the project site. Special-status wildlife and invertebrate species that potentially occur in the project site and vicinity are included in Table A.

Townsend's Big-Eared Bat. The Townsend's big-eared bat is a California Species of Special Concern that is widely distributed in North America and occurs in a variety of habitats from sea level to approximately 10,000 feet elevation. This species is found throughout California, but specific details of its distribution are not well known. However, they are most abundant in mesic habitats. They roost in colonies and prefer caves, but they have also been reported to utilize buildings, bridges, rock crevices and man-made structures as roost sites. Foraging habitat includes edges along streams adjacent to and within a variety of wooded habitats, in addition to open areas such as pastures. Small moths and beetles are primary food sources. Echolocation is generally used to capture prey while in flight. This species is highly sensitive to disturbance at roosting sites and require hibernacula free from human disturbance.

The nearest presumed extant CNDDDB occurrence of Townsend's big-eared bat, occurrence number 117 dated 2001, is located approximately 10.41 miles southwest of the project site.

The riverine community provides suitable foraging habitat for Townsend's big-eared bat. Potential suitable night roost is present on the bridge over the North Fork Stanislaus River. However, no sign of bat presence was observed on the underside of the bridge during the field surveys. The bridge does not provide suitable day roost (crevice) habitat for Townsend's big-eared bat. Additionally, daytime vehicle and pedestrian traffic would deter this species from utilizing the bridge.

Northern Goshawk Northern goshawk is a California Species of Special Concern with no federal status. It breeds in mountain habitats at middle and higher elevations throughout the Sierra Nevada, Klamath, Cascade, Warner, San Bernardino, and White Mountains, in the North Coast Ranges, and at Mt. Pinos, usually in dense, mature, old-growth conifer and deciduous forests.²⁶ It can be a casual winter resident along the north coast, throughout the

²⁶ Zeiner, D.C., et. al. eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.

foothills, and in northern deserts where it is often found in riparian and pinyon-juniper habitats. It typically hunts from perches, primarily for birds but may also eat small mammals. It typically nests on north-facing slopes near water.

Suitable habitat is present for this species in the Sierra mixed conifer forest habitat. No northern goshawks or nests were observed during site surveys. There are 13 CNDDDB records for northern goshawk within the nine-quadrangle search area, dated from 1984 to 1999. The closest recorded occurrence is located approximately 3.5 miles south of the project site and consisted of a nest tree.

Sharp-Shinned Hawk. The sharp-shinned hawk is a State Watch List species; it has no federal status. This species is fairly common as a migrant and winter resident except where deep snow occurs.²⁷ Breeding locations are not well documented, but the species likely breeds in the south Coast Ranges and in the Transverse and Peninsular Ranges. It may no longer breed in the Sierra Nevada Mountains. Sharp-shinned hawks breed in mid-elevation mixed conifer, Jeffrey pine, riparian deciduous, ponderosa pine, and black oak habitats where north facing slopes and plucking perches are available. Nests are built near water in dense conifer stands that are cool, moist, and well shaded with little ground cover. They primarily eat birds but will also take small mammals, insects, reptiles, and amphibians.

The Sierra mixed conifer forest habitat provides suitable nesting and foraging habitat for sharp-shinned hawk. No sharp-shinned hawks or nests were observed during site surveys. There is one CNDDDB record for sharp-shinned goshawk within the nine-quadrangle search area, dated 1998. This occurrence consisted of an active nest in a ponderosa pine more than 10 miles from the project site.

Osprey. The osprey (*Pandion haliaetus*) is a State Watch List species; it has no federal status. The osprey nests along rivers, lakes, and coastal areas. Nests are large, built of sticks, and located near the tops of large trees. Nests may also be built atop poles and similar structures; artificial nesting platforms are readily used. Ospreys feed primarily on fish and require open, clear water for foraging.

Suitable nesting habitat is present for this species in the Sierra mixed conifer forest habitat and the North Fork Stanislaus River could provide marginally suitable foraging habitat. No osprey or large stick nests suitable for osprey were observed within the biological survey area during the site surveys, though one osprey nest was located approximately 250 feet southeast of the biological survey area. However, a recent CNDDDB record, dated 2004, is located approximately 1.05 miles south (downstream) of the project site adjacent to the North Fork Feather River. Per the record, two adults and two juveniles were observed and presumed to be present due to the proximity of McKays Point Reservoir downstream of the nest site.

²⁷ Zeiner, D.C., et. al. eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.

California Spotted Owl. The California spotted owl Sierra Nevada Distinct Population Segment (DPS) was federally proposed as threatened in February 2023 and is also a California Species of Special Concern. It occurs in a wide variety of habitats including broadleaved upland forest and lower and upper montane conifer forests, often with an understory of black oaks and other deciduous hardwoods and a canopy closure of greater than 40 percent. It requires large blocks of mature forest with permanent water and suitable nesting trees and snags.

In northern California, spotted owls are most often associated with dense old-growth forests whereas in southern California they are associated with mixed oak and oak-conifer forests. Their elevational range runs sea level to 7,600 ft and is always within 1,000 ft of water. Spotted owls build nests in a tree or snag cavity or in broken top of large tree, and less often in mistletoe clump. They feed primarily on small mammals but will also eat birds, bats, and large arthropods.

The Sierra mixed conifer forest habitat provides suitable nesting and foraging habitat for California spotted owl. No California spotted owls or nests were observed during site surveys. There are multiple recorded observations in the vicinity, including an active nest site observed in 2022 approximately 0.5 mile from the project site (CDFW observation ID 196461).

Foothill Yellow-Legged Frog. The southern Sierra DPS of foothill yellow-legged frog (FYLF) is both federally and state listed as endangered. This population of FYLF is found along the western slopes of the Sierra Nevada Mountains. The FYLF is a highly aquatic frog and rarely moves more than 40 ft from permanent water. These frogs inhabit rocky streams or rivers with rocky substrates in forests, chaparral, and woodlands in the Sierra Nevada Mountains up to 6,300 ft in elevation. However, almost all known populations of this species in this part of the range occur at elevations below 4,500 ft. Typical breeding sites are wide and shallow channels with intermittent canopy and stable cobble-sized substrates.

This species has high site fidelity and generally lay eggs in the same area each year. Breeding and egg-laying occur in mid-March to May, and tadpoles need 3 to 4 months in the water to complete their aquatic development. Newly metamorphosed frogs typically migrate upstream from the hatching site.

Newly-metamorphosed frogs have a length of about 1 inch from snout to vent, and juveniles can reach a length of up to 1.5 inches. Adults range from 1.5 to 2.5 inches. At maximum adult size, females are larger than males and can be 3.5 inches long. Data on longevity of FYLF is scarce; based on a captured female and studies of other ranid frogs, life expectancy of FYLF in the wild is 3 years or more. May hybridize with Sierra Nevada yellow-legged frog (*Rana sierrae*), though hybrid offspring appear to be nonreproductive.²⁸

²⁸ Peek, R.A., M. Bedwell, S.M. O'Rourke, C. Goldberg, G.M. Wengert, and M.R. Miller. 2019. Hybridization between two parapatric ranid frog species in the northern Sierra Nevada, California, USA. *Molecular Ecology* 28(20):4636–4647.

Though the portion of the North Fork Stanislaus River in the project site is near the upper elevational limit of this DPS of FYLF, it does provide suitable aquatic breeding habitat for this species. No FYLF were detected during the site surveys. There are 38 CNDDDB records for FYLF within the nine-quadrangle search area, dated from 1995 to 2018. The closest CNDDDB occurrence is located approximately 2.5 miles west (downstream) of the project site.

3.4.2 Impact Analysis

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

Implementation of the proposed project could adversely affect special-status plant and wildlife species due to abutment wingwall seismic retrofit work, which would widen the pier footing with concrete by 12 inches, replacement of the existing bridge deck, and access to the bridge abutments and bridge approach shoulder access, including foot traffic access to the western bridge pier location.

Impacts to Special-Status Plant Species During Construction. Three special-status plant species have potential to occur in the project site based on habitat suitability and survey results: Small's southern clarkia, Sierra clarkia, and Tuolumne fawn lily.

Small's southern clarkia, Sierra clarkia, and Tuolumne fawn lily could occur in the project site due to the presence of suitable habitat and may be impacted if present. The project would result in minor permanent impacts to Sierra mixed conifer forest, totaling 0.0017 acre (75.3 square feet), as a result of abutment wingwall seismic retrofit work. Temporary impacts to Sierra mixed conifer forest, totaling 0.029 acre (1,266.6 square feet) would also occur during access to the bridge abutments and bridge approach shoulder access.

With implementation of **Mitigation Measure BIO-1**, potential impacts to Small's southern clarkia, Sierra clarkia, and Tuolumne fawn lily would be reduced to a **less than significant** level.

Mitigation Measure BIO-1

The following measures shall be implemented to reduce potential impacts to Small's southern clarkia, Sierra clarkia, and Tuolumne fawn lily.

1. Prior to the start of construction, preconstruction botanical surveys shall be conducted to confirm the species of the Clarkia or Erythronium present in the project site; if the Clarkia or Erythronium are not identifiable during the survey, subsequent surveys shall be conducted to identify the species. The surveys shall be conducted no more than 1-year prior to onset of construction at the appropriate time of year necessary to identify Small's southern clarkia, Sierra clarkia, and Tuolumne fawn lily (May through August).

2. If Small's southern clarkia, Sierra clarkia, or Tuolumne fawn lily are identified within the impact area, the impact area shall be adjusted to avoid impacting the population to the extent feasible. If it is not feasible to avoid impacting Small's southern clarkia, Sierra clarkia, or Tuolumne fawn lily, the California Department of Parks and Recreation (DPR) shall prepare and implement a mitigation plan (e.g., salvage, relocation, and monitoring) to minimize impacts to this species.

Impacts to Special-Status Wildlife Species During Construction. Six special-status wildlife species have potential to occur in the project site based on habitat suitability and survey results and, therefore, may be affected by the project: Townsend's big-eared bat, northern goshawk, sharp-shinned hawk, osprey, California spotted owl, and foothill yellow-legged frog.

Townsend's Big-Eared Bat. Replacement of the existing bridge deck would temporarily remove suitable night roost habitat for Townsend's big-eared bat and would temporarily displace any bats currently utilizing the bridge for roosting. Suitable foraging habitat is present; however, project activities would occur during daylight hours when bats are roosting. No activity is expected to occur at night and no night lighting is anticipated. Furthermore, project activities are limited to a very small area. No impacts to foraging habitat are anticipated.

With implementation of **Mitigation Measure BIO-2**, potential impacts to Townsend's big-eared bat would be reduced to a **less than significant** level.

Mitigation Measure BIO-2

The following measures shall be implemented to reduce potential impacts to Townsend's big-eared bat.

1. Work activities shall be limited to daylight hours to avoid potential effects to foraging bats.
2. The design of the new bridge deck shall provide equivalent night roost habitat to that on the existing bridge deck.

Northern Goshawk, Sharp-Shinned Hawk, and Osprey. The project would result in minor permanent impacts to Sierra mixed conifer forest (suitable habitat for northern goshawk, sharp-shinned hawk, and osprey), totaling 0.0017 acre (75.3 square feet), as a result of abutment wingwall seismic retrofit work. Temporary impacts to Sierra mixed conifer forest, totaling 0.029 acre (1,266.6 square feet) would also occur to provide access to the bridge abutments and bridge approach shoulder access.

Table B: Native Seed Mix

Scientific Name	Common Name	Rate (pounds per Acre)	Minimum Percent Germination
<i>Artemisia douglasiana</i>	California mugwort	2.0	50
<i>Bromus carinatus</i>	California brome	5.0	85
<i>Elymus trachycaulus</i>	Slender wheatgrass	2.0	60
<i>Eschscholzia californica</i>	California poppy	2.0	70
<i>Festuca microstachys</i>	Small fescue	10.0	80
<i>Hordeum brachyantherum</i>	California barley	2.0	80
<i>Lupinus bicolor</i>	Bicolored lupine	4.0	80

Source: Natural Environment Study (LSA 2024c).

With implementation of **Mitigation Measure BIO-3**, potential impacts to northern goshawk, sharp-shinned hawk, and osprey would be reduced to a **less than significant** level.

Mitigation Measure BIO-3

The following measures shall be implemented to reduce potential impacts to northern goshawk, sharp-shinned hawk, and osprey.

1. If work is expected to begin during the nesting season (February 1 and August 31), a preconstruction survey for nesting northern goshawk, sharp-shinned hawk, and osprey shall be conducted by a qualified biologist no more than 14 days prior to initiation of earthmoving activities. The survey shall include the project site and suitable nesting habitat within 500 feet.
2. If nesting northern goshawk, sharp-shinned hawk, or osprey are found within the survey area, a qualified biologist shall evaluate the potential for the project to disturb nesting activities. California Department of Fish and Wildlife (CDFW) shall be contacted to review the evaluation and determine if the project can proceed without adversely affecting nesting activities. CDFW shall also be consulted to establish protection measures such as buffers. Disturbance of active nests shall be avoided until it is determined by a qualified biologist that nesting is complete and the young have fledged, or that the nest has failed. If work is allowed to proceed, at a minimum, a qualified biologist shall be on-site during the start of construction activities during the nesting season to monitor nesting activity. The monitor shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.
3. Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training instructs workers to recognize northern goshawk, sharp-shinned hawk, and osprey and their habitat(s).

4. Brightly colored Environmentally Sensitive Area (ESA) fencing shall be placed along the limits of work to prevent unnecessary encroachment into adjacent areas. Fencing shall be maintained in good condition for the duration of construction activities.
5. All areas temporarily impacted during project construction shall be restored to preconstruction contours (if necessary) and revegetated with native species as specified in Table B. Invasive exotic plants shall be controlled to the maximum extent practicable.

California Spotted Owl. The project would result in minor permanent impacts to Sierra mixed conifer forest (suitable habitat for this species), totaling 0.0017 acre (75.3 square feet), as a result of abutment wingwall seismic retrofit work. Temporary impacts to Sierra mixed conifer forest, totaling 0.029 acre (1,266.6 square feet) would also occur during access to the bridge abutments and bridge approach shoulder access.

California spotted owl could also be affected by the project if they are present during project construction and staging. However, since no trees are proposed for removal within suitable nesting habitat for this species, a May Affect but is Not Likely to Adversely Affect determination pursuant to FESA is expected.

Caltrans, as the federal lead agency, would initiate informal consultation with the USFWS for this species. The Biological Assessment prepared for the proposed project will be submitted to the USFWS to facilitate the consultation. It is anticipated that the USFWS would issue a Concurrence Letter consistent with the Not Likely to Adversely Affect determination.

With implementation of **Mitigation Measure BIO-4**, potential impacts to California spotted owl would be reduced to a **less than significant** level.

Mitigation Measure BIO-4

The following measures shall be implemented to reduce potential impacts to California spotted owl.

1. To minimize disturbance during the more critical early part of the California spotted owl breeding season, work occurring before June 15 shall not be located within 300 ft of suitable nesting habitat.
2. Jackhammers or similar machinery that produces high intensity sounds shall only be used for short duration (less than two hours total) and shall only be operated between the hours of 10:00 a.m. and 4:00 p.m. No blasting shall be permitted.
3. If an active California spotted owl nest or individual is discovered within 300 feet of the project site, United States Fish and Wildlife Service (USFWS) shall be contacted, and Section 7 consultation may need to be reinitiated. At a minimum, work

shall be deferred until the end of the nesting season (August 31) or until a qualified biologist confirms that the young have fledged or are otherwise no longer present.

4. No suitable California spotted owl nest trees shall be removed. No trees greater than 6 inches diameter at breast height shall be removed as a result of project implementation.
5. Brightly colored ESA fencing shall be placed along the limits of work to prevent unnecessary encroachment into adjacent areas. Fencing shall be maintained in good condition for the duration of construction activities.
6. Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training instructs workers to recognize California spotted owl and their habitat(s).
7. All work shall be performed during daylight hours. No nighttime operations or use of staging lights shall be allowed.
8. All areas temporarily impacted during project construction shall be restored to preconstruction contours (if necessary) and revegetated with native species as specified in Table B. Invasive exotic plants shall be controlled to the maximum extent practicable.

Foothill Yellow-Legged Frog. FYLF individuals present in or dispersing through the project site may potentially be exposed to increased noise and human activity. Individuals may be exposed to predators and/or desiccating conditions due to removal of surface debris and/or human disturbance. Minor permanent loss of riverine habitat, totaling 0.0004 acre (18.2 square feet), will not result in a net loss of suitable aquatic habitat for FYLF, as the impact area is located on a granite bench approximately 5 feet above the low-flow channel of the river making access difficult for FYLFs. FYLF are not expected to utilize this area.

In the unlikely event that FYLF individuals are present in the project area, they may be flushed from cover in rock crevices or other debris within the ordinary high water mark (OHWM) of the North Fork Stanislaus River due to increased noise and human activity levels resulting from foot traffic to access underneath the bridge. Flushed individuals may be subjected to increased predation and/or desiccating conditions and could avoid utilizing or moving through the project site.

However, the riverbanks in the project site are composed entirely of granite rock with a sheer drop-off of approximately five vertical feet below the work area to the live channel. FYLF are not expected to disperse into adjacent upland areas due to natural access limitations as well as an almost exclusively aquatic life history and lack of dispersal habitat in the vicinity. Additionally, installation of fencing along the banks is not feasible due to the granite rock composition. Therefore, exclusionary measures would not disrupt FYLF movement into upland areas.

Temporary impacts to riverine, totaling 0.0002 acre (8.5 square feet), will occur as a result of foot traffic access to the western bridge pier location. Additionally, approximately 0.06 acre of minor temporary project activities (access under the bridge deck on foot for pier repairs) are expected to take place within 40 feet from the river.

Caltrans, as the federal lead agency, would initiate informal consultation with the USFWS for this species. The Biological Assessment prepared for the proposed project will be submitted to the USFWS to facilitate the consultation. It is anticipated that the USFWS would issue a Concurrence Letter consistent with the May Affect, But Not Likely to Adversely Affect determination, since FYLF presence cannot be definitively ruled out.

Since the project will result in minimal impacts to suitable habitat and is unlikely to directly affect individuals, with implementation of **Mitigation Measure BIO-5**, a May Affect, But Not Likely to Adversely Affect determination is warranted. With implementation of **Mitigation Measure BIO-5**, potential impacts to FYLF would be reduced to a **less than significant** level.

Mitigation Measure BIO-5

The following measures shall be implemented to reduce potential impacts to foothill yellow-legged frog (FYLF).

1. A qualified biologist shall survey the project site 48 hours before the onset of work activities. If any life stage of FYLF is found and these individuals are likely to be injured by work activities, work shall stop, CDFW and USFWS shall be notified, and a re-initiation of take consultations may be warranted.
2. Before any activities begin on the project, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of FYLF and its habitat, the specific measures that are being implemented to conserve FYLF for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
3. During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
4. All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 ft from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, California Department of

Parks and Recreation (DPR) shall prepare a plan for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

5. Habitat contours shall be returned to their original configuration at the end of project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless Caltrans, CDFW, and USFWS determine that it is not feasible or modification of original contours would benefit FYLF.
6. The number of access routes, size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the project goal. ESA shall be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to FYLF habitat; this goal includes locating access routes and construction areas outside of aquatic areas to the maximum extent practicable. Animal exclusion fencing shall be installed along the North Fork Stanislaus River corridor to prevent FYLF from entering the construction site or encroachment by construction activities into suitable FYLF habitat.
7. To control sedimentation during and after project implementation, DPR shall implement Best Management Practices (BMPs) outlined in any authorizations or permits, issued under the authorities of the Clean Water Act (CWA) that it receives for the specific project. If BMPs are ineffective, DPR shall attempt to remedy the situation immediately, in consultation with CDFW and USFWS.
8. To ensure that diseases are not conveyed between work sites by the qualified biologists, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force shall be followed at all times.
9. Following completion of the project, all temporary impact areas shall be revegetated with the native seed mix specified in Table B. Permanently graded areas shall also be revegetated with the native seed mix specified in Table B.

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

No formally designated natural communities of special concern occur in the project site. However, the project site supports one sensitive natural community: riverine. Permanent impacts to riverine would be very minor, totaling approximately 0.0004 acre (18.2 square feet). These impacts would occur during seismic retrofit of the western pier footing, which would widen the pier footing with concrete by 12 inches. Temporary impacts, totaling approximately 0.0002 acre (8.5 square feet), would occur as a result of foot traffic access to the western bridge pier location.

With implementation of **Mitigation Measure BIO-6**, potential impacts to the riverine natural community would be reduced to a **less than significant** level.

Mitigation Measure BIO-6

The following measures shall be implemented to reduce potential impacts to the riverine natural community.

1. Work in the North Fork Stanislaus River (riverine habitat) shall be minimized to the extent possible.
2. Brightly colored ESA fencing shall be installed at the limits of work within the riverine habitat, upstream and downstream of the work area, to protect these areas during construction. Fencing shall be maintained in good condition for the duration of construction activities.
3. During removal of any part of the existing bridge, a debris collection device (e.g., heavy tarps, chain link mats) shall be installed below the bridge to prevent debris from falling into the North Fork Stanislaus River and left in place until bridge deck removal and installation activities are complete.
4. Measures consistent with the current Caltrans' Construction Site Best Management Practices (BMP) Manual (including the Storm Water Pollution Prevention Plan [SWPPP] and Water Pollution Control Plan [WPCP] Manuals) shall be implemented to minimize effects to the riverine habitat resulting from erosion, siltation, etc. during construction.
5. The project shall comply with DPR requirements for preparation and implementation of a Storm Water Soil Loss Prevention Plan (SWSLPP) for sediment, erosion control, and spill prevention to minimize effects to the riverine habitat resulting from erosion, siltation, etc. during construction. The SWSLPP shall contain a Spill Response Plan with instructions and procedures for reporting spills, the use and location of spill containment equipment, and the use and location of spill collection materials.

6. Prior to issuance of a Notice to Proceed with project construction, the project proponent shall obtain any regulatory permits that are required from the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or CDFW.

c. Would the project 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?

Aquatic resources within the project site are limited to the North Fork Stanislaus River (0.206 acre) and a roadside drainage (0.004 acre), and consist entirely of non-wetland waters, totaling 0.210 acre. No wetlands are present in the project site.

Permanent impacts to the North Fork Stanislaus River would be very minor, totaling approximately 0.0004 acre (18.2 square feet) resulting from seismic retrofit of the western pier footing, which would widen the pier footing with concrete by 12 inches. Temporary impacts, totaling approximately 0.0002 acre (8.5 square feet), would occur as a result of foot traffic access to the western bridge pier location. No project effects to the roadside drainage are expected to occur.

Potential waters of the U.S. affected by the project are regulated by the USACE under Section 404 of the CWA. It is expected the proposed discharge into potential waters of the U.S. during project construction can be authorized by the USACE using Nationwide Permit (NWP) 14 – Linear Transportation Projects. However, in accordance with the conditions of NWP 14, notification is not required for projects with less than 0.1 acre of impacts that are not associated with a special aquatic site (e.g., wetlands).

The proposed project would therefore have **no impact** on State or federally protected wetlands.

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

As discussed above, during the field surveys no substantial evidence was encountered that indicated that any portion of the project site is used as a wildlife migration corridor. However, rivers and other linear water features are often used as a movement corridor for smaller species of wildlife in the local vicinity. In addition, the Stanislaus River is known to support anadromous salmonids and thus, serves as a migration corridor for these fish species. However, as stated above, the reach of the North Fork Stanislaus River in the project site is not designated as EFH. Impacts to wildlife migration corridors would be **less than significant**.

The Migratory Bird Treaty Act (MBTA) prohibits actions that would result in “take” of migratory birds, their eggs, feathers, or nests. “Take” is defined in the MBTA as any means or any manner to hunt, pursue, wound, kill, possess, or transport, any migratory bird, nest, egg, or part thereof. Disturbance of migratory birds during their nesting season (February 1 to August 31) could result in “take” which is prohibited under the MBTA and Section 3513 of the California Fish and Game Code. California Fish and Game Code (Section 3503) also prohibits take or destruction of bird nests or eggs.

With implementation of **Mitigation Measure BIO-7**, potential impacts to migratory birds would be reduced to a **less than significant** level.

Mitigation Measure BIO-7

The following seasonal work restrictions shall be implemented during construction to minimize the potential for take of nesting birds:

1. If work must begin during the nesting season (February 1 to August 31), a qualified biologist shall survey all suitable nesting habitat in the project site for presence of nesting birds. This survey shall occur no more than 14 days prior to the start of construction. If no nesting activity is observed, work may proceed as planned. If an active nest is discovered, a qualified biologist shall evaluate the potential for the proposed project to disturb nesting activities. The evaluation criteria shall include, but are not limited to, the location/orientation of the nest in the nest tree, the distance of the nest from the project site, and line of sight between the nest and the project site.
2. If work is allowed to proceed, a qualified biologist shall establish exclusion buffers (if necessary) and be on-site daily during construction activities to monitor nesting activity. The biologist shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.
3. If removal of the bridge deck must begin during the nesting season and nests or remains of nests are observed on the bridge, exclusion structures shall be installed on the underside of the existing bridge to prevent nesting. Exclusion structures shall be installed prior to the start of the nesting season and shall be left in place and maintained until the existing structure is removed, or September 1, whichever is earlier. Mud nests or remains of mud nests shall be removed prior to installation of exclusion structures.
4. Alternatively, as allowed by regulatory permits, high pressure hoses, extension poles, or similar methods shall be utilized to remove nests or remains of nests prior to the start of the nesting season. In addition, regular monitoring shall be required to remove new nests before they are large enough to support egg-laying.

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

Calaveras County and Tuolumne County are responsible for implementation of California Public Resource Code § 21083.4, which protects oak woodlands Tuolumne County²⁹ also has a tree ordinance in place to protect oak trees from removal. However, this Code does not apply to State lands. DPR regulations³⁰ prohibit tree removal on DPR lands, except when undertaken by DPR in conjunction with its resource management activities.

LSA conducted a tree inventory of the project site on May 12, 2022. The tree inventory included all trees within the project site that were six inches diameter at breast height (DBH) or larger. Data collected during the inventory included species, diameter at breast height, and relative condition. Species found within the project site are shown in Table C.

Table C: Trees in the Project Site

Common Name	Scientific Name	Number of Specimens within Project Site
ponderosa pine	<i>Pinus ponderosa</i>	103
incense cedar	<i>Calocedrus decurrens</i>	50
Douglas fir	<i>Pseudotsuga menziesii</i>	1
white fir	<i>Abies concolor</i>	3
black oak	<i>Quercus kelloggii</i>	7
white alder	<i>Alnus rhombifolia</i>	1
sugar pine	<i>Pinus lambertiana</i>	2
interior live oak	<i>Quercus wislizeni</i>	1

Source: Natural Environment Study (LSA 2024c).

There are eight protected oak trees within the project site. However, removal of trees six inches DBH or greater would not be required for implementation of the proposed project. Therefore, the proposed project would result in **no impacts** related to conflicts with local policies or ordinances protecting biological resources, such as tree preservation policies.

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

The proposed project is not currently subject to any adopted habitat conservation plans or natural community conservation plans. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plans. There would be **no impact**, and no mitigation is required.

²⁹ Tuolumne County Ordinance Code. Chapter 9.24: Premature Removal of Native Oak Trees. Website: https://www.tuolumnecounty.ca.gov/DocumentCenter/View/224/TCOC_Chapter_924?bidId= (accessed February 4, 2025).

³⁰ California Code of Regulations, Title 14, Section 4306.

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

This section uses information and analysis from the Cultural Resources Assessment³¹ prepared for the proposed project.

On April 28, 2022, the cultural resources record search was conducted for the project site and surrounding area by staff at the Central California Information Center (CCIC) at California State University, Stanislaus in Turlock. It included a review of all recorded historic and prehistoric archaeological sites within one mile of the project, as well as a review of known cultural resource survey and excavation reports. LSA requested a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC) on May 5, 2022. The NAHC responded on June 22, 2022, with negative results and a list of tribes and individuals recommended for contact, which was provided to the DPR. In December 2022, LSA Archaeologist Riordan Goodwin conducted additional research, including review of historic period aerial photographs and maps.

Data from the CCIC indicate there have been 21 cultural resource studies previously conducted within one mile of the proposed project, four of which include portions and the entirety of the project site.³² Although no cultural resources are documented within the project site, 27 resources have been recorded within one mile, including prehistoric milling and lithic scatters, historic period building remnants, road and trail segments, water conveyance systems and multicomponent sites. The nearest resource, a prehistoric milling site, was documented approximately 330 feet north of the project site.

³¹ LSA Associates, Inc. (LSA). 2024b. *Cultural Resources Assessment for the Big Trees Parkway Bridge Rehabilitation Project, Calaveras and Tuolumne Counties, California*.

³² (1) California Department of Parks and Recreation (DPR). 1986. Calaveras Big Trees State Park, Inventory of Features, Cultural Resources. State of California, Department of Parks and Recreation. (CA-T0-00137); (2) Woolfenden, Wallace B. 1987. Archaeological Reconnaissance Report: Thunder Hill Timber Sale, and Shoe Timber Sale Review. Stanislaus National Forest (TO-01355); (3) Dick-Bissonnette, L. 2011. Archaeological Monitoring Report, DPR Central Valley District, Calaveras Big Trees State Park, Install 16 Interpretive Signs at Calaveras Big Trees State Park (CA-07522/T0-07522); (4) Dick-Bissonnette, L. 2012. Archaeological Monitoring Report, DPR Central Valley District, Calaveras Big Trees State Park, Install 16 Interpretive Signs at Calaveras Big Trees State Park (CA-07606).

Review of aerial photographs and maps indicates that (with the exception of the bridge) there were never any buildings or structures within the project site during the historic period (prior to 1972).³³ According to the Caltrans Historic Bridge Inventory, this structure was constructed in 1959 and is rated as Category 5, indicating it is not eligible for inclusion in the National Register of Historic Places.³⁴

On June 3, 2023, LSA Archaeologist Kendra Kolar completed an intensive pedestrian survey of the accessible portions of the project site. Due to the limits of surrounding steep terrain and slippery ground surfaces (due to accumulation of pine needles), the survey included a roughly 10-foot-wide swath around the perimeter of the paved parking area and approximately 25 feet on either side of Big Trees Parkway/Forest Route 5N18 for the length of the proposed project site. Special attention was paid to areas of exposed soil for surface artifacts and features and rodent aprons for evidence of archaeosols. The purpose of this survey was to identify and document, prior to the beginning of ground-disturbing activities, any cultural resources and thus also to identify any area(s) that might be sensitive for buried cultural resources.

During the pedestrian survey of the project site, visibility was exceptionally poor at approximately five percent, with the surface almost completely obscured by vegetation. Sparse modern refuse was noted on the surface throughout the project site. The observed soils are silty alluvium in nature. Although no resources were identified within the project site, a historic period cultural resource was noted adjacent, consisting of a weathered rock and concrete culvert that covers (and camouflages) the inlet end of a galvanized pipe installed to catch road run-off and funnel it downslope to the river. The culvert measures 6 feet long and 2 feet tall, possibly a circa 1930s landscape feature built by the Civilian Conservation Corps (CCC) as part of a designed/created landscape within the park. According to the lead agency, DPR, “many of the historic stone features in the park are associated with the original build out by the CCC and we generally consider them potentially eligible as part of a broader CCC park rustic district.”³⁵

3.5.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

One historic-period built environment cultural resource, the bridge carrying Big Trees Parkway over the North Fork Stanislaus River (Caltrans Bridge No. 30P-0001), constructed in 1959, was identified within the project site. The proposed project involves the rehabilitation of the bridge. This structure is rated in the Caltrans Historic Bridge Inventory as a Category 5 structure, indicating that it is not eligible for inclusion in the National Register of Historic Places. The proposed project would replace the deteriorated concrete roadway deck, construct the necessary roadway approach improvements, and address seismic deficiencies of the existing bridge to satisfy current performance standards. The

³³ (Historicaerials.com 2021) Historicaerials.com. 2021. Various aerial photographs of project area.

³⁴ California Department of Transportation (Caltrans). 2022. Caltrans Historic Bridge Inventory – Updated September 2022. District 10 – local Agency Bridges. Bridge No. 30P0001 – North Fork Stanislaus River. Caltrans Structure Maintenance and Investigations. Copy on file at LSA, Point Richmond, California.

³⁵ Slowik, Timothy, Associate State Archaeologist. 2023. Personal communication regarding feature LSA-BUH2102-S-1. California Department of Parks and Recreation.

project would replace the existing concrete bridge deck with in-kind materials. The bridge would remain in its historical location, orientation, and roadway approaches with the Big Trees Parkway. When completed, the bridge would resume providing vehicular crossing over the North Fork Stanislaus River. For these reasons, although the bridge is not a historic property, when completed, the proposed project would comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties as described in Section 15064.5 of the California Code of Regulations. No other resources were identified within the project site, and one historic-period feature was noted adjacent, which would not be impacted by the proposed project. Therefore, the proposed project would result in **less than significant impacts** to historical resources.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The records search conducted for the proposed project did not identify any recorded archaeological cultural resources in the project area. The field survey conducted did not identify any cultural resources within the project site.

Although archival research and field survey did not identify the presence of cultural resources within the APE, it is possible that during ground-disturbing activities historic or prehistoric resources may be discovered. Implementation of **Mitigation Measure CUL-1**, which requires the evaluation, avoidance or treatment of unanticipated discoveries, would reduce impacts to previously undiscovered resources to **less than significant with mitigation incorporated**.

Mitigation Measure CUL-1

During construction, if any archaeological deposits are encountered, all work within 25 feet of the discovery shall be redirected and a qualified archaeologist contacted (if one is not present) to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. The California Department of Parks and Recreation (DPR) shall also be notified. Project personnel shall not collect or move any archaeological materials.

Any adverse impacts to the finds shall be avoided by project activities. If avoidance is not feasible, the archaeological deposits shall be evaluated to determine if they qualify as a historical resource or unique archaeological resource, or as historic property. If the deposits do not qualify, avoidance is not necessary. If the deposits do qualify, adverse impacts on the deposits shall be avoided, or such impacts shall be mitigated. Mitigation may consist of, but is not limited to, recovery and analysis of the archaeological deposit; recording the resource; preparing a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Educational public outreach may also be appropriate.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and shall provide recommendations for the treatment of the archaeological deposits discovered. The report shall be submitted to the DPR.

Implementation of **Mitigation Measure CUL-1** would reduce the level of the potential impact through the identification of archaeological deposits during construction; the evaluation of unanticipated discoveries; and avoidance or recovery of significant archaeological data from those resources that warrant such investigation (i.e., historical or unique archaeological resources). This process would recover scientifically consequential information from at-risk resources, in consultation with tribal representatives, to offset their potential loss. Therefore, impacts to archaeological resources would be reduced to **less than significant with mitigation incorporated**.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No human remains are known to exist within the project area. Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County Coroner has determined whether or not the remains are subject to the coroner's authority. There is no indication that human remains are present within the project area. Implementation of **Mitigation Measure CUL-2**, below, would reduce the potential for impacts to unknown buried human remains, should they be encountered, to **less than significant with mitigation incorporated**.

Mitigation Measure CUL-2

Human remains encountered during project ground-disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5 and California Code of Regulations (CCR) Section 15064.5(d). DPR shall inform the construction contractor of the potential for human remains in the project site prior to the commencement of construction.

In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner shall be notified of the find immediately. If the remains are determined to be Native American, the County Coroner shall notify the North American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD shall have the opportunity to offer recommendations for the disposition of the remains.

3.6 ENERGY

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

3.6.1 Impact Analysis

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?*

Construction of the proposed project would require energy for the manufacture and transportation of building materials, preparation of the site for grading activities, and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. To increase energy efficiency on the site during project construction, idling times would be restricted to 5 minutes or less. Vehicle trips to and from the project site that would lead to consumption of more energy resources in fuel would temporarily increase during construction activity. The proposed project's construction activities would be temporary and are necessary to ensure the structural integrity of the bridge. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources.

Once constructed, operation of the rehabilitated and strengthened bridge itself would not consume energy. As the rehabilitated bridge would not shift alignment or add additional travel lanes, operation of the rehabilitated bridge would not result in increased vehicle trips or vehicle travel time that would result in inefficient or unnecessary consumption of energy resources. Therefore, impacts to consumption of energy resources would be **less than significant**, and no mitigation is required.

- b. *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

In 2002, the State Legislature passed Senate Bill (SB) 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and their

infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian access.

The most recently adopted CEC energy report is the 2023 Integrated Energy Policy Report. The 2023 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2023 Integrated Energy Policy Report covers a broad range of topics, including implementation of SB 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to SB 1383), updates on Northern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

Typically, energy consumption is associated with fuel used for vehicle trips and electricity and natural gas use. As indicated above, energy usage on the project site during construction would be temporary in nature. Operation of the proposed project would not result in additional vehicle trips, nor in additional electrical demand that would require the relocation or construction of new or expanded electric power. In addition, the proposed project would not include any new natural gas usage or connections. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC 2023 Integrated Energy Policy Report. Therefore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and this impact would be less than significant.

Therefore, implementation of the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant**, and no mitigation is required.

3.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Impact Analysis

a. *Would the project 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.*

The State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972, requiring the State Geologist to delineate Earthquake Fault Zones (EFZ) along known active faults that have high potential for fault rupture. Active faults are defined as a fault that has surface displacement within the last 11,000 years.³⁶ State regulations prohibit habitable structures from being sited within 50 feet of an active fault. According to the California Earthquake Hazards Zone Application ("EQ

³⁶ California, State of. 2019. Department of Conservation. Alquist-Priolo Earthquake Fault Zones. Website: www.conservation.ca.gov/cgs/alquist-priolo (accessed October 6, 2022).

Zapp”),³⁷ the project site is approximately 36.5 miles southwest of the Genoa Fault, which is the nearest Alquist-Priolo Fault Zone. Therefore, fault rupture through the site is not anticipated, and the proposed project would not directly or indirectly cause substantial adverse effects related to fault rupture. **No impact** would occur, and mitigation is not required.

ii. Strong seismic ground shaking?

The likelihood of the project site to experience strong ground shaking is considered low.³⁸ The project proposes no changes to the existing land use and the potential for strong seismic ground shaking to occur at the project site would be the same as in the existing condition. The proposed project would be designed in accordance with Caltrans seismic design criteria, which would include seismic attenuation features to ensure the integrity of the proposed structure remains intact during an earthquake. The proposed project would address existing seismic deficiencies of the bridge through the installation of seismic restraints at the piers and abutments and seismic retrofit of the pier foundations, which would ensure the bridge would satisfy current performance standards. Therefore, the proposed project would be designed to withstand strong seismic ground shaking (i.e., the bridge would not collapse during a seismic event) and would not expose people or structures to adverse effects. Impacts would be **less than significant**, and mitigation is not required.

iii. Seismic-related ground failure, including liquefaction?

Liquefaction is the transformation of loose, fine-grained sediment to a fluid-like state similar to quicksand. This phenomenon occurs due to strong seismic activity, and lessens the soil’s ability to support a structural foundation. The primary factors affecting the possibility of liquefaction in soil are: (1) intensity and duration of earthquake shaking; (2) soil type and relative density; (3) overburden pressures; and (4) depth to groundwater. Soil most susceptible to liquefaction is clean, loose, fine-grained sands and non-plastic silts that are saturated.

The proposed project has been designed in accordance with Caltrans seismic design criteria, which includes seismic attenuation features to ensure the integrity of the proposed structure remains intact during an earthquake. The proposed project would address existing seismic deficiencies of the bridge through the installation of seismic restraints at the piers and abutments and seismic retrofit of the pier foundations, which would ensure the bridge would satisfy current performance standards. Furthermore, because Calaveras and Tuolumne Counties are not located in a seismic hazard zone, the risk and danger of liquefaction occurring within the counties is considered to be minimal.^{39,40} The project proposes no changes to the existing land use and the potential for

³⁷ California Department of Conservation. California Earthquake Hazards Zone Application (“EQ Zapp”). Website: <https://maps.conservation.ca.gov/cgs/EQZApp/app/> (accessed October 6, 2022).

³⁸ California Geological Survey. 2016. Earthquake Shaking Potential for California. Website: https://www.conservation.ca.gov/cgs/Documents/Publications/Map-Sheets/MS_048.pdf (accessed October 6, 2022).

³⁹ Tuolumne County Community Resources Agency, 2018. Tuolumne County General Plan Volume II: Technical Background Report. August.

⁴⁰ Calaveras County. 2018. Op. cit.

liquefaction to occur at the project site would be the same as in the existing condition. Therefore, there would be **no impact**, and no mitigation is required.

iv. Landslides?

Seismically induced landslides and other slope failures are common occurrences during or soon after earthquakes in areas with significant ground slopes. As previously discussed, Calaveras and Tuolumne Counties are not located in a seismic hazard zone; therefore, the risk and danger of seismically induced landslides occurring within the counties is considered to be minimal.^{41,42} The project proposes no changes to the existing land use and the potential for seismically induced landslides to occur at the project site would be the same as in the existing condition. Therefore, there would be **no impact**, and no mitigation is required.

b. Would the project result in substantial soil erosion or the loss of topsoil?

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Construction activities that would disturb soil include the seismic retrofit of the pier foundations and the completion of the proposed roadway approach improvements. It is anticipated that construction activities would result in a total soil disturbance area of approximately 0.04 acre. A total of approximately 50 cubic yards of soil would be excavated and the maximum depth of excavation would be 2 feet. Therefore, because construction activities associated with the proposed project would require minimal soil disturbance, and the proposed project would result in a negligible increase in impervious surface (approximately 0.01 acre), the proposed project would not result in substantial soil erosion or the loss of topsoil. Furthermore, **Regulatory Compliance Measure WQ-1** would require the implementation of an Erosion and Sediment Control Plan as detailed in Section 3.10, Hydrology and Water Quality, though this measure is not required to mitigate impacts related to substantial soil erosion or loss of topsoil. Impacts would be **less than significant**, and mitigation is not required.

c. Would the project 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?

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Minimal excavation and land disturbance is proposed and the project would result in no changes to the existing and land use. The potential for

⁴¹ Tuolumne County Community Resources Agency. 2018. Tuolumne County General Plan Volume II: Technical Background Report. August.

⁴² Calaveras County. 2018. Op. cit.

on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse to occur in the project site would be the same as in the existing condition. Furthermore, the proposed project would be designed in accordance with Caltrans seismic design criteria, which would include seismic attenuation features to ensure the integrity of the proposed structure remains intact during an earthquake.

Compliance with all applicable codes and regulations, including the current California Building Code, would ensure that the impacts associated with on-or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse resulting from the proposed project would be minimized. There would be **no impact**, and no mitigation is required.

d. Would the project 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?

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. Expansive soils generally have a substantial amount of clay particles, which can give up water (shrink) or absorb water (swell). The change in the soil volume can cause structures to move unevenly and crack. The extent or range of the shrink/swell is influenced by the amount and kind of clay present in the soil. Expansive soils can be widely dispersed, and they can occur in hillside areas as well as low-lying alluvial basins.

According to United States Department of Agriculture (USDA) Natural Resources Conservation Service Web Soil Survey, soils underlying the project site are composed of Wilder-Ovall families complex (35 to 50 percent slopes).⁴³ The Wilder-Ovall families complex consists primarily of sandy loam and is considered well drained with a medium runoff class. According to Web Soil Survey, Wilder-Ovall families complex has a liquid limit rating of 25 percent and a plasticity index rating of 2.5 percent. According to a Federal Highway Administration (FHWA) study titled *An Evaluation of Expedient Methodology for Identification of Potentially Expansive Soils*,⁴⁴ soils with a liquid limit percentage less than 50 and a plasticity index less than 25 have a low potential swell classification. Therefore, Wilder-Ovall families complex would have low swelling based off its plasticity index and liquid limit values. There would be **no impact**, and no mitigation is required.

e. Would the project 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?

The proposed project involves improvements to an existing bridge and nearby roadwork. The project is transportation-related, and no septic or alternative waste treatment systems would be required during construction or operation. Portable toilets would be maintained in the paved

⁴³ United States Department of Agriculture (USDA). Natural Resources Conservation Service. Web Soil Survey. Website: websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed October 6, 2022).

⁴⁴ Federal Highway Administration (FHWA). 1977. *An Evaluation of Expedient Methodology for Identification of Potentially Expansive Soils*. Report No. FHWA-RD-77-94. June.

staging area (parking lot) throughout the construction period and would be serviced regularly by a service provider. The proposed project would not result in temporary or permanent impacts associated with soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. **No impact** would occur, and no mitigation is required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological resources include fossilized remains or traces of mammals, plants, and invertebrates, as well as their imprints. Such fossil remains, as well as the geological formations that contain them, are also considered a paleontological resource. Together, they represent a limited, nonrenewable scientific and educational resource. In areas where formal paleontological investigations have not been carried out, it can be difficult to predict where paleontological resources may be found. Per the University of California Museum of Paleontology (UCMP) database,⁴⁵ both Calaveras and Tuolumne counties have yielded paleontological (fossil) resources. Exact resource discovery locations are protected in the UCMP database, so it is not clear whether paleontological resources have been recovered in the project vicinity, and no paleontological resources are currently known to exist within the project site. Regardless, it is possible that previously unidentified paleontological resources could be impacted during ground-disturbing activity. The proposed project would require excavation of approximately 50 cubic yards of soil to a maximum depth of approximately 2 feet below the ground surface. Implementation of **Mitigation Measure GEO-1** would require excavation to halt within 50 feet of any discovered paleontological resources and examination of any paleontological find by a qualified paleontologist to determine its significance. Implementation of **Mitigation Measure GEO-1** would reduce impacts on previously undiscovered paleontological resources to **less than significant** levels.

Mitigation Measure GEO-1 **Paleontological Resources.** In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards [SVP 1995,1996]). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the California Department of Parks and Recreation (DPR) determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the DPR for review and approval.

⁴⁵ University of California Museum of Paleontology. 2025. UCMP Locality Search. Website: <https://ucmpdb.berkeley.edu/loc.html>. Accessed May 2025.

3.8 GREENHOUSE GAS EMISSIONS

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

3.8.1 Impact Analysis

- a. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

The project would not generate greenhouse gas emissions that would have a significant impact on the environment. Construction emissions would be limited to the construction employees travelling to the site, as well as the actual construction and installation of the proposed improvements, which would be minimal and temporary. Once constructed, the project would not generate any additional greenhouse gas emissions. Therefore, the proposed project would not generate greenhouse gas emissions that would have a significant impact on the environment. This impact would be **less than significant**, and no mitigation is required.

- b. *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The project would not conflict with any plan, policy, or regulation regarding reducing the emission of greenhouse gases. The project does not involve a site modification or operational usage that meets criteria for emission generating uses. The State of California has adopted legislation to reduce greenhouse gases and local jurisdictions are responsible for developing plans for such reductions. While the County has not adopted a plan or program to reduce greenhouse gas emissions, the proposed project would not conflict with any such plan or program. Therefore, the impact is considered **less than significant**, and no mitigation is required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

3.9.1 Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Hazardous materials are chemicals that could potentially cause harm during an accidental release and are defined as being toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer. Hazardous substances include all chemicals regulated under the United States Department of Transportation (USDOT) "hazardous materials" regulations and the United States Environmental Protection Agency (USEPA) "hazardous waste" regulations. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The severity of any such exposure is dependent upon the type, amount, and characteristics of the hazardous material involved; the time, location, and nature of the event; and the sensitivity of the individual or environment affected.

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the

girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements.

Construction of the proposed project would include the use of heavy equipment for grading, hauling, and handling materials. Use of this equipment may require the use of fuels and other common materials that have hazardous properties (e.g., solvents and oils). These materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a hazard to people, animals, plants, or sensitive areas (i.e., North Fork Stanislaus River) on or near the project site. As described previously in **Mitigation Measure BIO-5**, the proposed project would maintain at least a 60-foot setback from riparian habitat for refueling, maintenance, and staging equipment. The use of such hazardous materials would be temporary, and the proposed project would not include a permanent use or source of hazardous materials. Additionally, as part of the Storm Water Soil Loss Prevention Plan (SWSLPP) required for DPR projects resulting in less than one acre of ground disturbance, the construction contractor would prepare and implement an Erosion and Sediment Control Plan, pollutant control measures, and methods for the control of runoff, erosion, and sediment movement during project construction that adhere to the Risk Level 1 Requirements of the General Permit, including Good Housekeeping BMPs to manage construction equipment, materials and wastes. As required by **Mitigation Measure BIO-5**, in order to prevent hazardous runoff in the event of a fuel or oil spill, all equipment maintenance and refueling would be conducted within designated areas outside of the North Fork Stanislaus River channel. Transportation of hazardous materials would be regulated by the California Highway Patrol (CHP) and Caltrans. In addition, the implementation of Good Housekeeping BMPs as part of the SWSLPP would require the contractor to adhere to procedures for construction equipment maintenance, refueling, and washing activities.

After the completion of construction, the proposed project would not include a permanent use or source of hazardous materials. Additionally, the proposed project would not facilitate the routine transport of hazardous materials.

With implementation of BMPs required by the SWSLPP, potential impacts associated with the routine transport, use, or disposal of hazardous materials would be **less than significant**.

b. Would the project 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?

Exposure to hazardous materials during the construction and operation of the proposed on-site uses could result from: (1) the improper handling or use of hazardous substances; (2) a transportation accident; or (3) inadvertent release resulting from an unforeseen event (e.g., fire, flood, or earthquake).

As stated above, routine transport, use, or disposal of hazardous materials during construction would be completed in compliance with applicable laws and regulations. Potentially hazardous materials such as dry construction materials, fuels, lubricants, and solvents would be used during

site grading, bridge rehabilitation, and roadway approach improvements. The amount of hazardous chemicals present during construction would be limited and would be in compliance with existing government regulations. The potential for the release of hazardous materials during project construction is low and, even if a release were to occur, it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of these materials that would be used during construction activities. Additionally, the Construction Contractor would prepare and implement an Emergency Response and Cleanup Plan in the event a spill were to occur, as specified in the SWSLPP would require the contractor to adhere to procedures for construction equipment maintenance, refueling, and washing activities.

Demolition and construction activities at the project site could expose construction workers to potentially hazardous materials, including traffic striping, asbestos-containing materials (ACM), lead-based paint (LBP), and aerially deposited lead (ADL). Hazardous materials shall be excavated, transported, and disposed of in accordance with the rules and regulations of the following agencies: USEPA, Caltrans, the California Department of Toxic Substances Control (DTSC), California Environmental Protection Agency (Cal/EPA), the California Division of Occupational Safety and Health (DOSH), and local regulatory agencies (i.e., Tuolumne and Calaveras Counties).

Traffic Striping. Traffic striping within the project site includes both yellow striping on the bridge approaches and white striping on the bridge deck. Lead chromate is the yellow pigment that was used in “safety yellow” colored traffic striping on the majority of California roads. Lead chromate-containing yellow striping materials may contain approximately 20,000 parts per million (ppm) of lead and approximately 5,000 ppm of hexavalent chromium. The debris produced when this older yellow striping is ground from the pavement would likely meet the definition of a hazardous waste, unless it is substantially diluted with the underlying pavement material (by using extensive pavement milling). For a solid waste containing lead, the waste is classified as California hazardous when: 1) the representative total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTL) of 1,000 milligrams per kilogram (mg/kg); or 2) the representative soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). When total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required.

An Asbestos and Lead-containing Paint Survey Report was conducted for the proposed project by Geocon Consultants.⁴⁶ Investigative samples were taken from both white traffic striping on the bridge deck and yellow traffic striping on the bridge approach. Total lead and chromium were detected in the paint-chip samples analyzed: 76 mg/kg total lead, and 9.5 mg/kg total chromium in the white traffic striping, and 7.2 mg/kg total lead and 17 mg/kg total chromium in the yellow traffic striping. Samples taken during the survey were not large enough to perform soluble lead analysis that is required to determine if the white traffic striping would be considered a California hazardous waste. Based on the total lead content of the white and yellow traffic striping sampled during the survey, neither the white nor the yellow traffic striping would be characterized as a California or Federal (RCRA) hazardous waste based on lead or chromium content if stripped, blasted, or

⁴⁶ Geocon Consultants, Inc. 2022. *Asbestos and Lead-Containing Paint Survey Report, Bridge Replacement, North Fork Stanislaus River Bridge (BR. No. 30P1), Big Trees Parkway, Calaveras County, California*. June.

otherwise separated from the substrates. Soluble lead analysis would be required to ensure that the white traffic striping does not exceed the STLC. However, construction activities (including demolition) that disturb materials or paints containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, §1532.1.

As such, removal of yellow striping on Big Trees Parkway has the potential to expose construction workers to a hazardous material. In order to reduce this potential impact, **Mitigation Measure HAZ-1** would require further sampling of waste generated during removal of striping and, if necessary, handling and disposal of the material as a hazardous waste. Implementation of this mitigation measure would reduce impacts to a **less than significant** level.

Asbestos-Containing Materials/Lead-Based Paint. The existing bridge spanning North Fork Stanislaus River on Big Trees Parkway was built in 1959. Due to the age of the existing bridge, there is a potential for presence of ACM and LBP. Removal of materials from the existing structure could potentially release airborne particles of hazardous materials that may affect construction workers or the public.

As detailed in the Asbestos and Lead-containing Paint Survey Report,⁴⁷ investigative sampling concluded that no asbestos was detected, and the Cal/OSHA asbestos standard does not apply for the proposed project.

The USEPA and the DTSC require that LBP with lead concentrations equal to or greater than the United States Department of Housing and Urban Development (HUD) definition of an LBP (greater or equal to 1 milligram per square centimeter [mg/cm²] or 0.5 percent lead by weight) be removed prior to demolition if the paint is loose and peeling. If the paint is securely adhering to the substrate, the entire material may be disposed of as demolition debris, which is a nonhazardous waste. Loose and peeling paint must be disposed of as a State and/or federal hazardous waste if the concentration of lead exceeds applicable waste thresholds. Investigative samples were taken from white and yellow traffic striping, deteriorating brown paint applied to the wooden barrier rails, and tan paint applied to the girder/truss system. Total lead and chromium were detected in the paint-chip samples analyzed and the Asbestos and Lead-Containing Paint Survey Report recommends that all paints at the project location be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during maintenance, renovation, and demolition activities. As described below, **Mitigation Measure HAZ-2** would require compliance with Occupational Safety and Health Administration (OSHA) Standard 1926.6 to protect construction workers while handling or disposing of LBP. Implementation of **Mitigation Measures HAZ-3** would reduce impacts related to the release of airborne LBP to a **less than significant** level.

Aerially Deposited Lead and Other Potential Soil/Groundwater Contamination. Soils located adjacent to roads (i.e., Big Trees Parkway/ Forest Route 5N18) may contain elevated concentrations of ADL in exposed surface soils, which could pose a health hazard to construction workers. According to the Aerially Deposited Lead Site Investigation Report prepared for the proposed project, elevated lead concentrations exceeding California hazardous waste thresholds were

⁴⁷ Geocon Consultants, Inc. 2022. *Asbestos and Lead-Containing Paint Survey Report, Bridge Replacement, North Fork Stanislaus River Bridge (BR. No. 30P1), Big Trees Parkway, Calaveras County, California*. June.

encountered in samples collected from beneath the bridge structure, but not along the unpaved shoulders, which indicates that the lead concentrations in soil below the bridge are likely related to deteriorated bridge paint and/or historical bridge sandblasting operations.⁴⁸ Potential ADL impacts are anticipated to be limited to the areas of exposed soil at both ends of the bridge where the Big Trees Parkway/Forest Route 5N18 realignment would be conducted. Although potential soil/groundwater contamination at the project site is unlikely, implementation of **Mitigation Measures HAZ-4**, described below, would reduce potential impacts related to elevated lead concentrations and other soil contamination to an impact level that is **less than significant**.

After the completion of project construction, the newly developed bridge on Big Trees Parkway crossing North Fork Stanislaus River would operate as under existing conditions. The potential for releasing hazardous materials into the environment during project operation would be limited to vehicles traveling on the roadway. This potential exists under existing conditions and would not be exacerbated by implementation of the proposed project because traffic volumes would remain the same. Additionally, the transport of hazardous materials is subject to strict regulations established by State and federal agencies. Therefore, operation of the proposed project would not result in a significant impact associated with hazards from a reasonably foreseeable upset and accident condition involving the release of hazardous materials into the environment.

Mitigation Measure HAZ-1

Paint Striping Protocol. During construction, if the contractor is required to remove yellow striping from existing pavement, the waste generated shall be sampled, handled, and disposed of as a hazardous waste. Processes and requirements for removal or grinding of traffic striping shall be conducted in compliance with the current (2018) California Department of Transportation Standard Special Provisions (Caltrans SSPs).

Mitigation Measure HAZ-2

Lead-Based Paint Abatement Program. During construction, the construction contractor shall comply with federal Occupational Safety and Health Administration (OSHA) Standard 1926.6 related to lead abatement, and all other applicable State and federal requirements for handling and disposal of lead-based paint (LBP), asbestos-containing materials (ACM), and universal wastes.

Prior to demolition of the existing bridge, LBP and ACM surveys shall be performed by a qualified environmental professional retained by the DPR. ACM inspections in California are required to be conducted by a Certified Asbestos Consultant (CAC) or a Certified Site Surveillance Technician (CSST) working under a CAC. The LBP inspection should be conducted by a California Department of Public Health Certified Lead Inspector/ Assessor as defined in Title 17 California Code of Regulations (CCR), Division 1, Chapter 8. If any LBP or ACM is identified, it shall be abated and removed from the

⁴⁸ Geocon Consultants, Inc. 2024. *Aerially Deposited Lead Site Investigation Report, North Fork Stanislaus River Bridge, Calaveras Big Trees State Park, Calaveras County, California*. December.

site in accordance with all applicable regulations, including OSHA requirements. DPR shall verify that the surveys and abatement or removal, as necessary, have been completed prior to any demolition and construction activities on the project site.

Mitigation Measure HAZ-3

Lead Compliance Plan. The contractor(s) shall prepare a project-specific Lead Compliance Plan (CCR Title 8, § 1532.1, the “Lead in Construction” standard) to minimize worker exposure to lead-containing soil. The plan shall include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of lead-containing soil.

The plan shall identify special soil management and disposal procedures and/or construction worker health and safety procedures to be implemented during project demolition and construction activities to reduce exposure to hazardous materials. The plan shall include all necessary procedures to ensure that excavated soils are stored, tested, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. DPR shall ensure that the Lead Compliance Plan includes available data from any pre-project construction soil sampling activities. DPR shall provide the Lead Compliance Plan to the construction contractor and ensure that the contractor follows the Lead Compliance Plan. The Lead Compliance Plan shall consider and include the following requirements:

1. Excavation, transportation, and placement operations shall result in no visible dust.
2. A construction “Exclusion Zone” shall be identified where hazardous materials may be stored. A temporary security fence shall be installed to surround and secure the exclusion zone.
3. Air quality shall be monitored during excavation of soils contaminated with hazardous constituents.
4. Staging of hazardous materials shall comply with the requirements in CCR Title 22, Sections 6626.250 to 6626.260.
5. If temporary stockpiling of hazardous materials is necessary, the construction contractor shall:
 - a. Cover the stockpile with plastic sheeting or tarps;

- b. Install a berm around the stockpile to prevent runoff from leaving the area; and
 - c. Locate the stockpile away from the North Fork Stanislaus River watershed area.
- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The proposed project is not located within 0.25 mile of an existing or proposed school, and there are no schools within the project site or surrounding area. The closest schools to the project site are the Hazel Fisher Elementary School and Mountain Play Preschool, both located approximately 3.9 miles west of the project site in Arnold. Therefore, implementation of the proposed project would not result in any impacts associated with emitting hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **No impact** would occur, and no mitigation is required.

- d. *Would the project 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?*

The project site is not included on any list of hazardous materials site compiled pursuant to Government Code Section 65962.5,⁴⁹ and **no impact** would occur.

- e. *Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 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?*

There are no airport land use plans identified by Tuolumne or Calaveras Counties near the proposed project site. Furthermore, there are no public airports or public use airports within 2 miles of the project site. Implementation of the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project site and surrounding area within an airport land use plan or within 2 miles of an airport. **No impact** would occur, and no mitigation measures are required.

- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The Calaveras County Emergency Operations Plan⁵⁰ and Emergency Operations Plan for Tuolumne County⁵¹ are applicable within the project site and surrounding area. Construction activities would require the bridge to be closed for approximately five months, which could affect emergency

⁴⁹ California Environmental Protection Agency. 2020. Cortese List Data Resources. Website: calepa.ca.gov/sitecleanup/corteselist/ (accessed October 5, 2022).

⁵⁰ Calaveras County Office of Emergency Services. 2019. Calaveras County Emergency Operations Plan, Base Plan. September.

⁵¹ Tuolumne County. 2012. Emergency Operations Plan for Tuolumne County, Part I: Basic Plan. June.

response. Roadway closure barriers and signage would be installed along Big Trees Parkway to alert motorists of the bridge/road closure. Park facilities east (south) of the bridge would not be accessible to the public during construction. Facilities closed during construction include Oak Leaf Spring Picnic Area, South Grove Trailhead, Beaver Creek Campsites, and Beaver Creek Picnic Area. Fire access roads are present beyond the South Grove area; however, access is controlled by locked gates and the distance and road surface is not suitable for public access. Fire personnel may continue to access these areas by using fire roads originating from other areas, where feasible. Park facilities west of the bridge would remain open to the public during construction.

As described in **Mitigation Measure TR-1** in Section 3.17, Transportation, the DPR would be required to prepare a Transportation Management Plan (TMP) during final design to address detours and notification for emergency service providers, local agencies, and the public. The TMP shall be developed in coordination with emergency service providers, DPR, and Tuolumne and Calaveras Counties to address road closures and traffic control. The TMP would also require DPR to provide regular communication to emergency service providers throughout the construction period in order to minimize disruption associated with lane closures.

In addition, implementation of **Mitigation Measure HAZ-4** would require DPR to coordinate with CAL FIRE and other nearby agencies that provide fire-related emergency services such as USFS, and to plan for increased patrols and lookouts on the Tuolumne County side of the North Fork Stanislaus River during the construction-period bridge closure.

Mitigation Measure HAZ-4 **Fire Safety Plan.** Prior to the start of construction, DPR shall develop a Fire Safety Plan in coordination with CAL FIRE. The plan shall include the emergency calling procedures for both CAL FIRE and local fire department(s), increased patrols, and staffed lookouts on the Tuolumne County side of the North Fork Stanislaus River. Additionally, DPR personnel shall ensure presence of a DPR radio at Calaveras Big Trees State Park during construction, which allows direct contact with CAL FIRE and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.

With implementation of **Mitigation Measures TR-1** and **HAZ-4**, temporary impacts to adopted emergency response or emergency evacuation plans during construction would be reduced to **less than significant** levels.

The proposed project would rehabilitate an existing bridge. After the completion of construction, operation of the proposed project would not result in a change in traffic volume or access to the project site or surrounding areas. Therefore, operation of the proposed project would have **no impact** on emergency response times or adopted emergency response or evacuation plans compared to existing conditions.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The proposed project site is located in a State Responsibility Area (SRA) Very High Fire Hazard Severity Zone according to CAL FIRE mapping.⁵² As such, CAL FIRE would respond to wildfires in the project vicinity.

According to the Calaveras Big Trees General Plan, fire risk is managed through prescribed fire and vegetation management programs. There are CAL FIRE and USFS fire stations located on either side of the bridge: CAL FIRE Arnold Station south along SR-4 and USFS Dorrington Fire Station north along SR-4 on the northwest side of the bridge, and CAL FIRE Skull Creek Fire Station east along Forest Route 5N02, and USFS Dry Meadow Fire Station east along Forest Route 4N65 on the southeast side of the bridge. On the Calaveras County side of the bridge, there are additional Ebbetts Pass Fire District Stations, the nearest of which is Station 4 in Arnold.

During construction of the proposed project, operation of construction equipment has the potential to generate sparks that could result in the commencement of a wildfire. In accordance with **Mitigation Measure HAZ-5**, BMPs would be implemented to reduce the potential for spark generation during construction activities.

In addition, closure of the bridge during construction would result in reduced access for CAL FIRE between the Calaveras County and Tuolumne County sides of the bridge in the case of fire. Big Trees Parkway is closed annually from mid-November to early April, and therefore there is no winter road access to the proposed project site. Construction would occur between July and mid-November, while the site is free of snow. As discussed above, implementation of **Mitigation Measure HAZ-4** would require DPR to coordinate with CAL FIRE and other nearby agencies that provide fire-related emergency services such as USFS, and to plan for increased patrols and lookouts on the Tuolumne County side of the North Fork Stanislaus River during the construction-period bridge closure.

Operation of the proposed project would not alter the risk or impacts of wildland fires to residences as compared with the existing conditions. With incorporation of **Mitigation Measures HAZ-4 and HAZ-5**, potential impacts involving wildland fires during construction would be **less than significant**.

Mitigation Measure HAZ-5 **Fire Prevention Best Management Practices.** During construction, the construction contractor shall ensure the following Best Management Practices (BMPs) to address fire prevention are implemented: installation of spark arrestors on construction equipment; storage of flammable materials in areas away from natural vegetation; limiting of construction activities that could generate sparks on windy days; posting of “No Smoking” signs in the construction area; and providing fire extinguishers in construction areas.

⁵² California Department of Forestry and Fire Protection (CAL FIRE). Fire and Resource Assessment Program. FHSZ Viewer. Website: <https://egis.fire.ca.gov/FHSZ/> (accessed October 5, 2022).

3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
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;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and transport of sediment downstream compared to existing conditions. During a storm event, soil erosion could occur at an accelerated rate. Additionally, construction-related pollutants such as liquid and petroleum products and concrete-related waste, could be spilled, leaked, or transported via storm runoff into adjacent drainages and into downstream receiving waters. Any of these pollutants have the potential to be transported via stormwater runoff into receiving waters (i.e., North Fork Stanislaus River).

Construction of the project is estimated to begin in July 2025 and would be completed by November 2025 while the site is free of snow. Conducting construction activities when there is low flow in North Fork Stanislaus River would reduce the potential for construction activities to contribute pollutants to downstream receiving waters. A catchment platform would be installed below the

bridge to catch smaller pieces of concrete and prevent material from dropping in the riverbed. Concrete collected by the catchment platform would be removed by hand and collected in dumpsters in the staging area. Demolished materials would be hauled to a disposal facility in Calaveras County.

The proposed project would result in less than 1 acre of ground disturbance. Therefore, no Notice of Intent (NOI) or Stormwater Pollution Prevention Plan (SWPPP) would be required, but the proposed project would be required to comply with the DPR requirements for preparation and implementation of the Storm Water Soil Loss Prevention Plan (SWSLPP) for sediment, erosion control, and spill prevention, as stipulated in Section 01 57 13 Storm Water Soil Loss Prevention Plan.

Additionally, the construction contractor would prepare and implement Good Housekeeping BMPs as required by the SWSLPP, including emergency and spill prevention and cleanup plans, . As required by **Mitigation Measure BIO-5**, in order to prevent hazardous runoff in the event of a fuel or oil spill, all equipment maintenance and refueling would be conducted within designated areas outside of the North Fork Stanislaus River channel. Good Housekeeping BMPs as required by the SWSLPP and **Mitigation Measure BIO-5** would require the contractor to adhere to procedures for construction equipment maintenance, refueling, and washing activities. Implementation of the SWSLPP would require the preparation and implementation of Good Housekeeping BMPs including an Erosion and Sediment Control Plan, pollutant control measures, and methods for the control of runoff, erosion, and sediment movement during project construction. Good Housekeeping BMPs as required by the SWSLPP would also prevent any spills or release of material from all construction-period equipment maintenance, refueling, and storage activities.

After the completion of construction, the proposed project would result in a negligible increase in impervious surfaces (0.02 acre) and the newly renovated bridge on Big Trees Parkway crossing the North Fork Stanislaus River would operate as under existing conditions. The potential for water quality impacts during project operation would be limited to vehicles traveling on the roadway. This potential exists under existing conditions and would not be exacerbated by implementation of the proposed project because traffic volumes would remain the same. Additionally, the proposed project would be required to include Caltrans approved Design Pollution Prevention BMPs and Treatment BMPs as detailed in **Regulatory Compliance Measures WQ-1** and **WQ-2**, which would further ensure that operation of the proposed project would not result in any significant impacts to water quality.

Compliance with the SWSLPP, **Mitigation Measure BIO-5**, and **Regulatory Compliance Measures (RCMs) WQ-1** and **WQ-2** would ensure that impacts related to violation of water quality standards or waste discharge requirements or related to substantial degradation of surface or groundwater quality would be **less than significant**.

RCM WQ-1

Design Pollution Prevention Best Management Practices. Final design of the project shall include Caltrans approved Design Pollution Prevention BMPs, including revegetation of any disturbed areas, consistent with the requirements of the Caltrans Permit and Project Planning and Design Guide. Project construction shall not be

deemed complete until the Design Pollution Prevention BMPs are installed and a long-term BMP maintenance plan is prepared.

RCM WQ-2

Treatment Best Management Practices. Final design of project shall include Caltrans approved Treatment BMPs, which may include infiltration devices, media filters, or other treatment BMPs, consistent with the requirements of the Caltrans Permit and Project Planning and Design Guide. Project construction shall not be deemed complete until the Treatment BMPs are installed and a long-term BMP maintenance plan is prepared.

- b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. The proposed project would result in a negligible increase in impervious surfaces (0.02 acre) and would not require groundwater dewatering. Implementation of the proposed project would not significantly affect groundwater supplies and groundwater recharge and would not cause a net deficit in aquifer volume or a lowering of the local groundwater level. **No impact** would occur, and no mitigation measures are required.

- c. Would the project 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;*

During construction activities, excavated soil would be exposed and disturbed, and there would be an increased potential for soil erosion and transport of sediment downstream when compared with existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. Construction of the proposed project requires minimal land disturbance and would not result in the alteration of the course of a stream or river. Construction activities that would disturb soil include the seismic retrofit of the pier foundations and the completion of the proposed roadway approach improvements. A total of approximately 50 cubic yards of soil would be excavated and the maximum depth of excavation would be 2 feet. It is anticipated that construction activities would result in a total soil disturbance area of approximately 0.62 acre.

Project activities would also be subject to CWA Section 401 Water Quality Certification for discharges of dredged and fill materials through the Central Valley Regional Water Quality Control

Board (RWQCB). Per Section 401 General Order (No. WQ-2021-0048-DWQ), projects covered under USACE Nationwide Permit 14 (Linear Transportation Projects), including the proposed project, are pre-certified by the RWQCB if project impacts do not exceed 0.01 acre and 100 linear feet for permanent impacts and 0.2 acre and 300 linear feet for total impacts to waters of the State. As discussed in Section 3.4.2.b, permanent impacts to waters would be very minor, totaling approximately 0.0004 acre (18.2 square feet). These impacts would occur during seismic retrofit of the western pier footing, which would widen the pier footing with concrete by 12 inches. Temporary impacts, totaling approximately 0.0002 acre (8.5 square feet), would occur as a result of foot traffic access to the western bridge pier location. The proposed project is therefore pre-certified under Section 401.

A CDFW Lake and Streambed Alteration Agreement would be required which would forbid leaving bare ground and would require revegetation of exposed soils, as well as soil stabilization until new vegetation becomes established. Furthermore, implementation of the SWSLPP, which would entail the preparation and implementation of an Erosion and Sediment Control Plan, and pollution control measures, would ensure impacts related to erosion or siltation would be less than significant during the construction period.

The proposed project would result in the removal of up to 100 feet of vegetation 3 feet wide to clear access pathways leading to the interior piers. Removal of vegetation would result in exposed soil and bare ground that would be susceptible to erosion. However, temporary erosion control measures would be implemented as required by the Erosion Control Plan and the area would be replanted. Revegetation monitoring would be required as stipulated in the Lake and Streambed Alteration Agreement to ensure replanting is successful and results in adequate vegetative cover.

The proposed project would result in a negligible increase of impervious surface area (0.02 acre) and would not significantly increase the volume and velocity of runoff during a storm compared to existing conditions. Additionally, the proposed project would be required to include Caltrans approved Design Pollution Prevention BMPs and Treatment BMPs as detailed in **Regulatory Compliance Measures WQ-1 and WQ-2**, which would further ensure that increased erosion or transport of sediment would not occur and that impacts would be **less than significant**.

- ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*
- 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*

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Construction of the proposed project requires minimal land disturbance and would not result in the alteration of the course of a stream or river. Construction activities that would disturb soil include the seismic retrofit of the pier foundations and the completion of the proposed roadway approach improvements. It is anticipated that construction

activities would result in a total soil disturbance area of 0.62 acre. A total of approximately 50 cubic yards of soil would be excavated and the maximum depth of excavation would be 2 feet.

After the completion of construction, the proposed project would result in a negligible increase in impervious surfaces (0.02 acre). The proposed project would be required to include Caltrans approved Design Pollution Prevention BMPs and Treatment BMPs as detailed in **Regulatory Compliance Measures WQ-1 and WQ-2**. Due to the minimal land/soil disturbance associated with project construction and minimal increase in impervious surfaces associated with the proposed project, changes to the existing drainage pattern of the site or area would be less than significant. Construction and operation of the proposed project would not result in alteration of the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of runoff in a manner which would result in flooding on- or offsite or 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. Impacts would be **less than significant**.

iv. Impede or redirect flood flows?

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map No. 06009C0300E (effective December 17, 2010) and Map No. 06109C0150C (effective April 16, 2009), portions of the project site are designated as Zone A, which comprises areas that are subject to inundation by the 1 percent annual chance flood event (100-year floodplain). The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Upon the completion of construction, the existing deck would be replaced and the vertical profile would be similar to the existing profile. Therefore, the proposed project would not impede or redirect flood flows, and impacts related to the placement of structures within a 100-year flood hazard area would be **less than significant**. No mitigation is required.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The project site is located within a 100-year flood hazard zone as mapped by FEMA. Construction staging areas would be placed outside of the existing 100-year floodplains to prevent pollutant discharges from flooding events during the construction period and construction would be completed during the dry season when risk of flooding is low. Upon the completion of construction, the existing deck would be replaced and the vertical profile would be similar to the existing profile. Therefore, the risk of project inundation would be similar to existing conditions. Impacts related to risk of pollutant release flooding during storm events would be less than significant. No mitigation is required.

Seiching is a phenomenon that occurs when seismic groundshaking induces standing waves (seiches) inside water retention facilities such as reservoirs and water tanks. Such waves can cause retention

structures to fail and flood downstream properties. The nearest enclosed bodies of water to the project site are McKays Point Reservoir and White Pines Lake, located approximately 2.1 miles southwest and 3.7 miles west of the project site, respectively. Due to the distance of the proposed project from the nearest enclosed water body, the risk associated with possible seiche waves is not considered a potential constraint or a potentially significant impact. No mitigation is required.

Tsunamis are generated wave trains generally caused by tectonic displacement of the sea floor associated with shallow earthquakes, sea floor landslides, rock falls, and exploding volcanic islands. The bridge is not located in a tsunami inundation area as identified by the DOC Tsunami Inundation Maps.⁵³ Due to the distance of the proposed project from the Pacific Ocean (greater than 100 miles) and its location outside any tsunami inundation areas, the risk associated with tsunamis is not considered a potential constraint, and impacts would be **less than significant**. No mitigation is required.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project is within the jurisdiction of the Central Valley RWQCB. The Central Valley RWQCB adopted a Water Quality Control Plan (i.e., Basin Plan)⁵⁴, which designates beneficial uses for all surface and groundwater within its jurisdiction and established the water quality objectives and standards necessary to protect those beneficial uses. As previously discussed, construction and operational BMPs would be implemented to reduce impacts related to erosion, sedimentation, and spills as required by the SWSLPP and **Regulatory Compliance Measures WQ-1 through WQ-2**. Additionally, the proposed project would be required to comply with requirements set forth by the CDFW Lake and Streambed Alteration Agreement and CWA Section 401 Water Quality Certification. With adherence to these regulatory requirements, the project would not result in water quality impacts that would conflict with the Basin Plan for the Central Valley Region. Therefore, impacts related to conflict with a water quality control plan would be **less than significant**.

The Sustainable Groundwater Management Act (SGMA) was enacted in September 2014. The SGMA requires governments and water agencies of high- and medium-priority basins to halt overdraft of groundwater basins. The SGMA requires the formation of local groundwater sustainability agencies (GSAs) in high- and medium-priority basins. These agencies are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins. The project site is not located within a delineated groundwater basin subject to SGMA.⁵⁵ Additionally, the proposed project would not require the use or consumption of groundwater resources. Therefore, the

⁵³ California Department of Conservation (DOC). 2019. *California Tsunami Maps and Data*. Website: <https://www.conservation.ca.gov/cgs/tsunami/maps> (accessed October 13, 2022).

⁵⁴ California Regional Water Quality Control Board (RWQCB) Central Valley Region. 2019. *Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region, the Sacramento River Basin and the San Joaquin River Basin*. February.

⁵⁵ California Department of Water Resources (DWR). *SGMA Basin Prioritization Dashboard*. Website: <https://gis.water.ca.gov/app/bp-dashboard/final/> (accessed October 14, 2022).

proposed project would have **no impacts** related to a conflict with or obstruction of a sustainable groundwater management plan.

3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☒	☐
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?	☐	☐	☐	☒

3.11.1 Impact Analysis

a. *Would the project physically divide an established community?*

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The proposed project would replace of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also install cover plates on the girders, install seismic restraints at the piers and abutments, implement seismic retrofit of the pier foundations, and construct roadway approach improvements.

Construction would take approximately five months and bridge access would be closed for the duration of construction activities. Roadway closure barriers and signage would be installed along Big Trees Parkway to alert motorists of the bridge/road closure. Park facilities east (south) of the bridge would not be accessible to the public during construction. Facilities closed during construction include Oak Leaf Spring Picnic Area, South Grove Trailhead, Beaver Creek Campsites, and Beaver Creek Picnic Area. Fire access roads are present beyond the South Grove area; however, access is controlled by locked gates and the distance and road surface is not suitable for public access. Fire personnel may continue to access these areas by using fire roads originating from other areas, where feasible. Park facilities west of the bridge would remain open to the public during construction.

Although construction of the proposed project would result in road and facility closures, closures would be limited to picnic areas, campsites, and a trailhead. This road is used primarily for recreational purposes and is not used as a major throughfare. Nearby existing communities would still be accessible and the roadway closure would not physically divide an established community. Furthermore, road closures would be temporary in nature and limited to the construction period. After the completion of construction, the land use would remain consistent with existing conditions.

Therefore, the proposed project would not physically divide an established community. Impacts would be **less than significant** and no mitigation would be required.

b. Would the project 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?

Construction work would occur within existing roadway right-of-way or within property owned and operated by DPR. The proposed project would not require temporary or permanent property acquisition. The Calaveras Big Trees State Park General Plan designates the project site as Day Use, and identifies several objectives and policies related to traffic and specifically the Day Use areas. One of the key objectives identified is “improvement of traffic movement and visitor flow, particularly at the entrance station, the visitor center, the North Grove trailhead, and the river day use area.” The proposed project, located in the river day use area as identified in the General Plan, would help meet this objective by restoring through-lanes in both directions to full functionality on the bridge, improving traffic movement and visitor flow in the river day use area.

Overall, the proposed project would comply with the objectives and policies of the Calaveras Big Trees State Park General Plan. The proposed project would not cause a significant environmental impact due to a conflict with local planning documents, policy or regulations. There would be **no impact**, and no mitigation would be required.

3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.12.1 Impact Analysis

- a. *Would the project 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?*

Minerals are any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances including, but not limited to, coal, peat and oil bearing rock, but excluding geothermal resources, natural gas and petroleum. Rock, sand, gravel and earth are also considered minerals by the Department of Conservation when extracted by surface mining operations. The proposed project involves improvements to an existing bridge and roadway approaches. The project would involve minimal ground disturbance and there are no known mineral resources at the project site.^{56,57} Furthermore, mineral resource extraction in state park units is prohibited by law and by policy. As such, the proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State, and there would be **no impact** related to the availability of mineral resources.

- b. *Would the project 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?*

Refer to Section 3.12.a. The proposed project would not result in the loss of availability of any known locally important mineral resource recovery site. Therefore, **no impact** related to the availability of a locally-important mineral resources recovery site would occur.

⁵⁶ Calaveras County. 2018. *Calaveras County Draft General Plan Draft Environmental Impact Report, SCH # 2017012043, Figure 4.2-2, Map of Calaveras County Mines*. June.

⁵⁷ Tuolumne County Community Resources Agency. 2018. Op. cit.

3.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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 2 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?	☐	☐	☐	☒

Characteristics of Sound. Noise is generally defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is the number of complete vibrations or cycles per second of a wave that results in the range of tone from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment, and it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments.

Measurement of Sound. Sound is characterized by various parameters that describe the rate of oscillation (frequency) of sound waves, the distance between successive troughs or crests in the wave, the speed that it travels, and the pressure level or energy content of a given sound. The sound pressure level has become the most common descriptor used to characterize the loudness (or amplitude) of an ambient sound, and the decibel (dB) scale is used to quantify sound intensity. A dB is a unit of measurement which indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments.

Because sound can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. The logarithmic decibel scale allows an extremely wide range of acoustic energy to be characterized in a manageable notation. Thus, a 10 A-weighted decibel (dBA) increase in the level of a continuous noise

represents a perceived doubling of loudness, while a 20 dBA increase is 100 times more intense, and a 30 dBA increase is 1,000 times more intense. As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level. Noise levels diminish or attenuate as distance from the source increases based on an inverse square rule, depending on how the noise source is physically configured. Noise level from a single-point source, such as a single piece of construction equipment at ground level, attenuates at a rate of 6 dB for each doubling of distance (between the single-point source of noise and the noise-sensitive receptor of concern). Heavily traveled roads with few gaps in traffic behave as continuous line sources and attenuate roughly at a rate of 3 dB per doubling of distance.

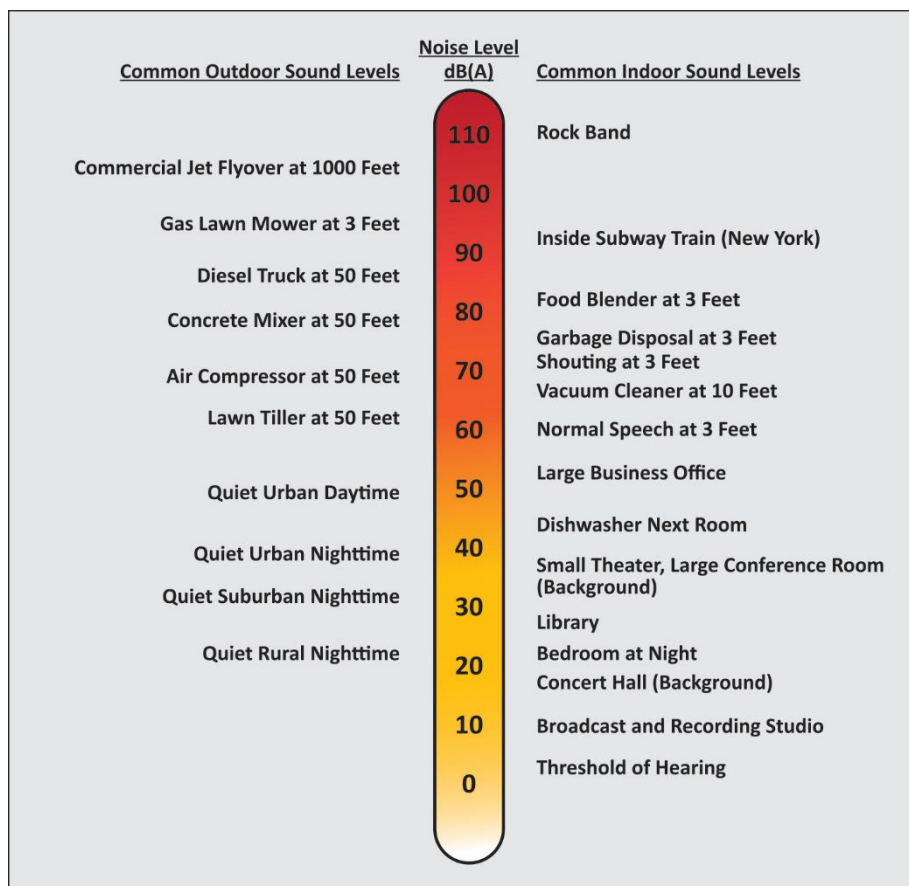
Since the human ear is not equally sensitive to all pitches (sound frequencies) within the entire spectrum, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity in a process called “A-weighting,” expressed as “dBA.” The dBA or A-weighted decibel refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. Table D contains a list of typical acoustical terms and definitions. Figure 4 shows representative noise sources and their corresponding noise levels in dBA.

Table D: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this section are A-weighted, unless reported otherwise.
L_{01} , L_{10} , L_{50} , L_{90}	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max} , L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Harris, Cyril M., ed., 1998).

Figure 4: Common Sound Levels and Noise Sources



Source: Compiled by LSA Associates, Inc. (2015).

Noise can be quantified based on various time periods and ratings. Ambient noise quantification for humans accounts for the annoying effects of sound in the equivalent continuous sound level (L_{eq}), which is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for communities in the State of California are the L_{eq} , the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally interchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels

denoted by $L_{\max}$ for short-term noise impacts. $L_{\max}$ reflects peak operating conditions, and addresses the annoying aspects of intermittent noise.

Noise impacts can be described in three categories. The first is audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dBA or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dBA. This range of noise levels has been found to be noticeable only in well-controlled laboratory environments. The last category is changes in noise level of less than 1.0 dBA that are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise. According to the United States Department of Housing and Urban Development's 1985 Noise Guidebook, permanent physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 to 90 dBA.⁵⁸ Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the ear, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. For avoiding adverse effects on human physical and mental health in the workplace or in communities, the United States Department of Labor, Occupation Health and Safety Administration (OSHA) requires the protection of workers from hearing loss when the noise exposure equals or exceeds an 8-hour time-weighted average of 85 dBA.⁵⁹

Unwanted community effects of noise occur at levels much lower than those that cause hearing loss and other health effects. Annoyance occurs when noise interferes with sleeping, conversation, noise-sensitive work, including learning or listening to radio, television, or music. According to the World Health Organization (WHO) noise studies, during daytime hours, few people are seriously annoyed by activities with noise levels below 55 dBA, or moderately annoyed with noise levels below 50 dBA.⁶⁰

Characteristics of Groundborne Vibration. Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors where the motion may be discernible. However, without the effects associated with the shaking of a building, there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby

⁵⁸ United States Department of Housing and Urban Development (HUD), Environmental Planning Division. 1985. *The Noise Guidebook: A Reference Document for Implementing the Department of Housing and Urban Development's Noise Policy*. March.

⁵⁹ Occupational Safety and Health Administration (OSHA). 2008. Regulations, Standards 29 CFR, Occupational Noise Exposure 1910.95. Website: https://www.osha.gov/laws-regs/regulations/standard_number/1910/1910.95 (accessed March 2025).

⁶⁰ World Health Organization (WHO). 1999. Guidelines for Community Noise, Geneva. Website: <https://www.who.int/publications/i/item/a68672> (accessed March 2025).

buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Building damage is not a factor for normal operation and heavy equipment activities, with the occasional exception of blasting and pile driving during construction.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Impacts with ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet of the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 feet.⁶¹ When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. For most projects, it is assumed that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, construction activities have the potential to result in ground-borne vibration that could be perceptible and annoying. Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than ground-borne noise.

Ground-borne vibration has the potential to disturb people as well as damage buildings. Although it is very rare for ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings.⁶² Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). RMS is best for characterizing human response to building vibration, and PPV is used to characterize the potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where L_v is the vibration velocity levels in decibels (VdB, or vibration in decibels), “V” is the RMS velocity amplitude, and “ V_{ref} ” is the reference velocity amplitude, or 1×10^{-6} inches per second (in/sec) used in the United States.

3.13.2 Impact Analysis

- a. *Would the project result in 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?*

It should be noted that the proposed project would not generate an increase in vehicle volume on Big Trees Parkway; therefore, the proposed project would not result in any future impacts

⁶¹ Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed March 2025).

⁶² Ibid.

associated with traffic noise increases. Additionally, none of the design features of the proposed project would include stationary noise sources. The proposed project would only generate short-term construction noise and vibration both of which could impact sensitive receptors in the project site and surrounding area.

In Calaveras County, for off-site non-transportation-related stationary source impacts related to construction, impacts would occur if construction activities occurred during the hours of 6:00 p.m. to 6:59 a.m. in or adjacent to residential areas. In Tuolumne County, impacts would occur if construction activities occurred during the hours of 7:00 p.m. to 6:59 a.m. within 1,900 feet of residences or other noise sensitive uses. Construction noise levels generated from 7:00 a.m. to 6:59 p.m. are exempt from Calaveras and Tuolumne County noise standards.

Construction. Two types of short-term noise impacts would occur during project construction: (1) equipment delivery and construction worker commutes, and (2) project construction operations.

The first type of short-term construction noise would result from transport of construction equipment and materials to the project site and construction worker commutes. These transportation activities would incrementally raise noise levels on access roads leading to the site. It is expected that larger trucks used in equipment delivery would generate higher noise impacts than trucks associated with worker commutes. The single-event noise from equipment trucks passing at a distance of 50 feet from a sensitive noise receptor would reach a maximum level of 84 dBA L_{max} . However, the pieces of heavy equipment for demolition and construction activities would be moved on site just one time and would remain on site for the duration construction activities. This one-time trip, when heavy construction equipment is moved on and off site, would not add to the daily traffic noise in the project vicinity. The total number of daily vehicle trips would be minimal when compared to existing traffic volumes on the affected roads, and the long-term noise level changes associated with these trips would not be perceptible. Therefore, equipment transport noise and construction-related worker commute impacts would be short term and would result in a **less than significant** off-site noise impact.

The second type of short-term noise impact is related to noise generated during demolition and construction activities on the project site. Construction is undertaken in discrete steps, each of which has its own mix of equipment, and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table E lists the maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 feet between the construction equipment and a noise receptor. Typical operating cycles for these types of construction equipment may involve 1 to 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings.

Table E: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 ft
Backhoe	40	80
Chain Saw	20	85
Compressor	100	81
Concrete Mixer Truck	40	85
Concrete Pump Truck	20	82
Concrete Saw	20	90
Crane	16	85
Dozer	40	80
Dump truck	40	84
Excavator	40	85
Forklift	20	75
Front [End] Loader	40	80
Generator	100	78
Grader	8	85
Jackhammers	20	85
Pile Driver (Impact)	10	95
Roller	20	85
Scraper	40	88
Welder	40	74

Sources: *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* (USEPA 1971), Roadway Construction Noise Model (FHWA 2006).

Bold = Construction equipment to be used for project.

FHWA = Federal Highway Administration

ft = foot/feet

L_{max} = maximum instantaneous sound level

USEPA = United States Environmental Protection Agency

In addition to the reference maximum noise level, the usage factor provided in Table F is used to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10 \log(U.F.) - 20 \log\left(\frac{D}{50}\right)$$

where: $L_{eq}(equip)$ = L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period

E.L. = Noise emission level of the particular piece of equipment at a reference distance of 50 ft

U.F. = Usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time

D = Distance from the receiver to the piece of equipment

Table F: Construction Noise Levels by Phase

Phase	Duration (months)	Equipment	Composite Noise Level at 50 ft (dBA L _{eq})	Distance to Sensitive Receptor (ft) ¹	Noise Level at Receptor (dBA L _{eq})
Site Preparation and Demolition	2	Concrete saw, chain saw, backhoes, jackhammers, crane, dump truck	86	3,830	49
Excavation and Construction	5	Excavator, backhoe, concrete truck, concrete pump truck.	84	3,830	47
Roadway Approach Work	3	Dump truck, loader, backhoe, vibratory roller	83	3,830	45

Source: Compiled by LSA (2025).

¹ Distances are from the average location of construction activity for each phase, center of project site. The nearest residence is located approximately 3,830 feet from the center of the project where construction activity would occur.

dBA L_{eq} = average A-weighted hourly noise level

ft = foot/feet

Each piece of construction equipment operates as an individual point source. Using the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously:

$$Leq (composite) = 10 * \log_{10} \left(\sum_{i=1}^n 10^{\frac{Ln_i}{10}} \right)$$

Table F shows the composite noise levels of the pieces of equipment for each construction phase at a distance of 50 feet from the construction area. Once composite noise levels are calculated, reference noise levels can then be adjusted for distance using the following equation:

$$Leq (at distance X) = Leq (at 50 feet) - 20 * \log_{10} \left(\frac{X}{50} \right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA while halving the distance would increase noise levels by 6 dBA.

As presented above, Table F shows the construction phases, the expected duration of each phase, the equipment expected to be used during each phase, the composite noise levels of the equipment at 50 feet, the distance of the nearest residential building from the average location of construction activities (a distance of 3,830 feet), and noise levels expected during each phase of construction. These noise level projections do not take into account intervening topography or barriers.

It is expected that average noise levels during construction at the nearest residences, to the northeast, would approach 49 dBA L_{eq} during the site preparation and demolition phase, which would take place for a duration of approximately 2 months. Average noise levels during other construction phases would range from 45 dBA L_{eq} to 47 dBA L_{eq}. While construction operations have the potential to generate audible noise at surrounding uses, construction noise levels generated

during the permitted hours (no earlier than 7:00 a.m. every day and limited to daylight hours per the Calaveras Big Trees General Plan, 7:01 a.m. to 5:59 p.m. every day in Calaveras County and 7:01 a.m. to 6:59 p.m. every day in Tuolumne County) are exempt from compliance with County noise standards pursuant to Chapter 9.02, Section 9.02.060.D of the Calaveras County Noise Ordinance and Policy 5.A.5 of the Tuolumne County General Plan Noise Element. Both counties require that construction noise be limited to 65 dBA at any receiving property line between the hours of 6:00 p.m. and 7:00 a.m. every day; however, the proposed project would not include construction activities during overnight hours. Although construction activities are exempt by the County, in order to minimize construction noise as much as possible at the nearby sensitive receptors, the following best management practices (BMPs) would be implemented:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active construction area.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active Project site during all project construction.
- Ensure that all general construction related activities are restricted to 7:01 a.m. and 5:59 p.m. every day. No construction activities generating noise levels of 75 dBA or greater shall occur from 6:00 p.m. to 7:00 a.m. every day.
- Designate a "disturbance coordinator" at DPR who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

With implementation of the above identified BMPs and compliance with the Calaveras County Noise Ordinance and Tuolumne County Noise Policy 5.A.5, impacts would be **less than significant**. No mitigation is required. Furthermore, the elevated noise levels would cease once project construction is completed.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Ground-borne noise and vibration from construction activity would be mostly low. Table G provides reference PPV values from construction vibration sources as measured at 25 feet. The following construction equipment is expected to be used during the phases of construction activity: backhoe, chain saw, concrete mixer truck, concrete pump truck, concrete saw, crane, dump truck, excavator, front end loader, and a roller. The closest structure to the project site is the single-family residential unit, approximately 3,830 feet from the limits of construction activities. Given that this structure is more than 25 feet from the project construction area limits, the estimated vibration impacts are propagated for distance based on the following equation.

$$PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.1}$$

Table G: Vibration Source Amplitudes for Construction Equipment

Equipment ¹	Reference PPV/L _v at 25 ft
	PPV (in/sec)
Backhoe ²	0.089
Concrete mixer truck ³	0.076
Concrete pump truck ³	0.076
Dump truck ³	0.076
Excavator ²	0.089
Front End Loader ²	0.089
Roller	0.210

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

¹ Chain saw, crane, concrete saw, was not included as they do not generate vibration during operation.

² The Large Bulldozer data from Table 7-4 Vibration Source Levels for Construction Equipment was used for the backhoe, excavator, and front-end loader.

³ The loaded truck data from Table 7-4 Vibration Source Levels for Construction Equipment was used for the concrete mixer truck, concrete pump truck, and dump truck.

μin/sec = micro-inches per second

in/sec = inches per second

ft = foot/feet

PPV = peak particle velocity

FTA = Federal Transit Administration

Using the reference data from Table G and the equation above, the operation of construction equipment would generate ground-borne vibration levels ranging less than 0.0001 PPV (in/sec) at the nearest residence. This range of vibration levels would therefore not exceed the 0.2 PPV (in/sec) threshold for the potential damage to fragile buildings. Impacts would be **less than significant**.

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 2 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?

There are no private airstrips or airport land use plans identified by Tuolumne or Calaveras Counties near the proposed project site. Furthermore, there are no public airports or public use airports within 2 miles of the project site. Implementation of the proposed project would not result in excessive noise for people residing or working in the project site or vicinity within an airport land use plan or within 2 miles of an airport. **No impact** would occur, and no mitigation measures are required.

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Impact Analysis

- a. *Would the project 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)?*

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also install cover plates on the girders, install seismic restraints at the piers and abutments, construct seismic retrofit of the pier foundations, and construct roadway approach improvements. The proposed project does not include the expansion or development of additional housing units or the extension of public roads or other infrastructure. Therefore, the proposed project would not result in any new unplanned population growth and there would be **no impact**.

- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The proposed project does not include the demolition of any existing structures or the removal of any existing housing units. Therefore, the proposed project would not displace any existing people or housing and there would be **no impact**.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

3.15.1 Impact Analysis

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:

- i. Fire protection?*
- ii. Police protection?*
- iii. Schools?*
- iv. Parks?*
- v. Other public facilities?*

Public services including police and fire protection are currently provided to the project site and surrounding area. Fire service for the proposed project and surrounding area are currently and would continue to be provided by Tuolumne County Fire Department, Ebbetts Pass Fire District, and the California Department of Forestry and Fire Protection (CAL FIRE).

Law enforcement service for the proposed project and surrounding area is currently and would continue to be provided by DPR Park Rangers, though mutual aid coordination with other local law enforcement agencies that have jurisdiction and maintain regular presence in the area also occurs (including the Calaveras County Sheriff and California Highway Patrol).

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. The proposed project would not result in the

development of additional residential uses or an increase in population that would require the provision of new fire or police facilities, schools, parks, or other public facilities, or result in the need for physically altered facilities. Therefore, the proposed project would have **no impact** related to 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 and no mitigation is required.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.16.1 Impact Analysis

- 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?*

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Although the proposed project is located within Calaveras Big Trees State Park, the proposed project would not be capacity increasing or induce population growth that would result in an increase in use of the State Park such that substantial physical deterioration would occur. Therefore, there would be **no impact**, and no mitigation is required.

- 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?*

The proposed project involves improvements to an existing bridge. The proposed project does not include the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, there would be **no impact**, and no mitigation is required.

3.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☒	☐	☐

3.17.1 Impact Analysis

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements.

Construction of the proposed project would last approximately 5 months. There would be an average of 4 workers per day on the construction site. During this period, temporary and intermittent transportation impacts would result from additional vehicle trips to the project site from workers and equipment deliveries.

Bridge access including the pedestrian sidewalk would be closed for the duration of construction activities. Roadway closure barriers and signage would be installed along Big Trees Parkway to alert motorists of the bridge/road closure. Park facilities east (south) of the bridge would not be accessible to the public during construction. Facilities closed during construction include Oak Leaf Spring Picnic Area, South Grove Trailhead, Beaver Creek Campsites, and Beaver Creek Picnic Area. Fire access roads are present beyond the South Grove area; however, access is controlled by locked gates and the distance and road surface is not suitable for public access. Fire personnel may continue to access these areas by using fire roads originating from other areas, where feasible. Park facilities west of the bridge would remain open to the public during construction.

Although construction of the proposed project would result in road and facility closures, closures would be limited to picnic areas, campsites, and a trailhead. This road is used primarily for recreational purposes and is not used as a major throughfare. Nearby existing communities would still be accessible. Public transit does not operate on the Big Trees Parkway bridge or in the nearby

vicinity of the project site. The changes in local transportation patterns would be temporary, and would not conflict with a program, plan, ordinance, or policy addressing the circulation system.

After the completion of construction, the land use would remain consistent with existing conditions. Because the proposed project involves rehabilitating an existing bridge and would not permanently affect normal traffic flow or circulation in the project site and surrounding area during project operation, operation of the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and impacts would be **less than significant**. No mitigation is required.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

On September 27, 2013, SB 743 was signed into law which started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. These changes include elimination of automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to “more appropriately balance the needs of congestion management with Statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.”

In December 2018, the Governor’s Office of Planning and Research (OPR) completed an update to the *CEQA Guidelines* to implement the requirements of SB 743. The *State CEQA Guidelines* state that vehicle miles traveled (VMT) must be the metric used to determine significant transportation impacts. The *State CEQA Guidelines* require all Lead Agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 1, 2020. *State CEQA Guidelines* Section 15064.3, subdivision (b), states that “Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact.”

OPR’s Technical Advisory⁶³ provides a list of transportation project types that would not likely result in a substantial or measurable increase in vehicle travel and, therefore, generally should not require an induced travel analysis. Included on this list are rehabilitation, maintenance, replacement, safety, and repair projects that are designed to improve the condition of existing transportation assets and do not add additional motor vehicle capacity. As previously discussed, the proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Therefore, because the project would involve the rehabilitation, maintenance, and replacement of the existing bridge and roadways and would not increase the existing roadway and bridge capacity, it can be presumed that once operational, the proposed

⁶³ Governor’s Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December. Website: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf (accessed November 10, 2022).

project would not result in a change in VMT. Therefore there would be **no impact**, and no mitigation is required.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. The proposed bridge would be 236 feet long and 36 feet wide including barriers, two 13-foot travel lanes, 2-foot-wide MASH-compliant barriers on both sides of the bridge, and a 6-foot sidewalk on the south side of the bridge. The crosswalk on the west side of the bridge would be restriped, and a new crosswalk on the east side of the bridge would be striped to accommodate pedestrian traffic from the proposed 6-foot sidewalk to the northern road shoulder. The project would replace the existing decking; therefore, the vertical profile would be similar to the existing profile.

These elements would result in a slightly altered roadway design than current conditions. However, said elements would not result in any substantial changes to the roadway. Furthermore, the proposed project would bring the facility up to current AASHTO bridge and road design standards; enhance overall traffic safety; comply with County, Caltrans, and AASHTO design standards; and improve the seismic resistance of the structure. Therefore, the proposed project would not substantially increase hazards due to a design feature. Impacts would be **less than significant**, and no mitigation is required.

d. Would the project result in inadequate emergency access?

Emergency services in the proposed project site and surrounding area are provided by CAL FIRE for fire and emergency services and by the State Parks rangers for police services; other local agencies such as USFS fire stations and Ebbetts Pass Fire District as well as Calaveras County Sheriff and California Highway Patrol may be called for backup in unusual circumstances. The proposed project is an infrastructure rehabilitation project and would not result in the construction of any structures for occupancy that would require additional emergency services. The project would result in the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements.

Construction of the proposed project would last approximately 5 months. Bridge access including the pedestrian sidewalk would be closed for the duration of construction activities. Roadway closure barriers and signage would be installed along Big Trees Parkway to alert motorists of the bridge/road closure. Park facilities east (south) of the bridge would not be accessible to the public during construction, and

closure of the bridge during construction would result in reduced access for CAL FIRE between the Calaveras County and Tuolumne County sides of the bridge. Fire personnel may continue to access these areas by using fire roads originating from other areas, where feasible; limited-access fire access roads are present beyond the South Grove area. There are CAL FIRE and USFS fire stations located on either side of the bridge: CAL FIRE Arnold Station south along SR-4 and USFS Dorrington Fire Station north along SR-4 on the northwest side of the bridge, and CAL FIRE Skull Creek Fire Station east along Forest Route 5N02, and USFS Dry Meadow Fire Station east along Forest Route 4N65 on the southeast side of the bridge. On the Calaveras County side of the bridge, there are additional Ebbetts Pass Fire District Stations, the nearest of which is Station 4 in Arnold.

To address impacts to emergency vehicles that may result from the bridge/road closures associated with construction of the proposed project, the construction contractor would be required to implement **Mitigation Measure TR-1**, and DPR would be required to implement **Mitigation Measure HAZ-4**. **Mitigation Measure TR-1** would require the development of a Transportation Management Plan (TMP) in coordination with emergency service providers, DPR, and Tuolumne and Calaveras Counties to address road closures and traffic control. The TMP would also require DPR to provide regular communication to emergency service providers throughout the construction period in order to minimize disruption associated with lane closures. **Mitigation Measure HAZ-4** would require DPR to coordinate with CAL FIRE and other local fire agencies such as USFS and to plan for increased patrols and lookouts on the Tuolumne County side of the North Fork Stanislaus River during the construction-period bridge closure.

With implementation of **Mitigation Measures TR-1** and **HAZ-4**, temporary impacts of project construction associated with emergency access would be **less than significant**. Therefore, impacts to emergency services would be less than significant.

Mitigation Measure TR-1

Transportation Management Plan (TMP). As part of the project final design, California Department of Parks and Recreation (DPR), in coordination with emergency service providers and the Counties of Calaveras and Tuolumne, shall prepare a TMP to determine the traffic control approach (e.g., flagging and signage). During construction, DPR shall require the construction contractor to adhere to all requirements of the TMP. Throughout the construction period, DPR shall provide regular communication to Counties of Tuolumne and Calaveras staff and emergency service providers in order to minimize disruption associated with the bridge/road closures.

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
i. 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	☐	☒	☐	☐
ii. 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.	☐	☒	☐	☐

3.18.1 Impact Analysis

- a. *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:*
- i. *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*
 - ii. *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.*

The North American Heritage Commission (NAHC) was contacted on June 30, 2022, to conduct a Sacred Lands File (SLF) search and provide a Native American Contact List for the proposed project. The NAHC responded on August 5, 2022, stating that an SLF search was completed for the proposed project site with negative results and a list of tribes and individuals recommended for contact, which was provided to the DPR. These five individuals were contacted via certified letter sent on August 11, 2022, pursuant to Assembly Bill (AB) 52 to identify Tribal Cultural Resource describing the project with maps depicting the project study area. Follow-up email notifications were sent on

September 23, 2022, requesting confirmation of receipt of the letter and a request for comments. No responses were received to either certified mail or electronic correspondence. Consultation with tribes did not result in the identification of any tribal cultural resources.

As described in Section 3.5, Cultural Resources, no known built cultural historical resources, including tribal cultural historical resources as defined in Section 15064.5 of the *State CEQA Guidelines* or Public Resources Code (PRC) 5020.1(k), are located within the project site.

Native American consultation was conducted in compliance with AB 52. No information regarding specific known tribal cultural resources within the project site and surrounding area was provided by the tribe.

Therefore, no known tribal cultural resources listed or eligible for listing in the California Register of Historical Resources or in a local register exist within the project site and surrounding area, and there are no known tribal cultural resources on the project site. The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource defined as 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 listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in PRC Section 5020.1(k).

However, the area surrounding the project site does contain areas that are typically associated with an elevated level of geoarchaeological sensitivity and are sensitive for the occurrence of additional, undiscovered deposits, including tribal cultural resources. The project site is therefore considered sensitive for prehistoric archaeological deposits, including tribal cultural resources. Previous research (archival review and fieldwork) confirms this sensitivity. If encountered during project-related ground disturbing activities, the project could result in the demolition, destruction, or alteration of unknown buried tribal cultural resources, which would result in a significant impact to these resources.

Implementation of **Mitigation Measure CUL-1** would reduce the level of the potential impact through the identification of archaeological deposits during construction; the evaluation of unanticipated discoveries; and avoidance or recovery of significant archaeological data from those resources that warrant such investigation (i.e., tribal cultural resources). This process would recover scientifically consequential information from at-risk resources, in consultation with tribal representatives, to offset their potential loss. Therefore, impacts to tribal cultural resources would be reduced to **less than significant with mitigation incorporated**.

No human remains are known to exist within the project area. Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County Coroner has determined whether or not the remains are subject to the coroner's authority. There is no indication that human remains are present within the project area. Implementation of **Mitigation Measure CUL-2**, would reduce the potential for impacts to unknown buried human remains, should they be encountered, to **less than significant with mitigation incorporated**.

Mitigation Measure CUL-2 requires diversion of construction work in the event any human skeletal material or related funerary objects are encountered during ground disturbance and notification of the County Coroner. If the remains are determined to be Native American, the County Coroner shall notify the NAHC, which shall determine and notify a Most Likely Descendant (MLD). **Mitigation Measure CUL-2** details steps for the treatment of previously unknown Native American burials. Implementation of **Mitigation Measures CUL-1 and CUL-2** would reduce potential impacts related to unknown buried tribal cultural resources to **less than significant with mitigation incorporated**.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Impact Analysis

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements.

During construction, nominal amounts of water would be used for dust control purposes and other construction activities. Water would be trucked in from locations within Calaveras and/or Tuolumne Counties and would not require the relocation or construction of new expanded water facilities. Portable toilets would be maintained on site throughout the construction period and would be serviced regularly by a service provider. The estimated amount of wastewater generated by construction workers on site would be nominal and would not require or result in the relocation or construction of new or expanded wastewater treatment facilities. Utilities such as natural gas lines, telecommunication infrastructure, and power poles/power lines are not located within the project footprint and would not require relocation. No temporary utilities would be installed as part of this project and power generation for construction would be delivered by portable generators.

Overall, implementation of the proposed project would not require or result in the relocation or construction of utility infrastructure that may cause significant environmental effects. There would be **no impact**, and no mitigation is necessary.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The proposed project would likely require water during construction for dust control and other construction activities. Water would be trucked in by pre-determined water haulers in Tuolumne and/or Calaveras Counties and would be stored on-site in water trucks through the duration of construction. The amount of water that would be needed during project construction would be nominal compared to the water supplies available within Calaveras and Tuolumne Counties. After the completion of construction, project operation would not require the use or consumption of any water resources. Overall, considering the minimal amount of water needed for project construction, there would be sufficient water supplies during normal, dry, and multiple dry years for implementation of the proposed project. Impacts would be **less than significant**, and no mitigation would be required.

c. Would the project 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?

The proposed project involves improvements to an existing bridge and, as such, does not involve uses requiring significant wastewater treatment. Any wastewater generated during construction of the proposed project would be temporary and would be disposed of properly by the project contractor. Portable toilets would be maintained on site throughout the construction period and would be serviced regularly by a service provider. Construction of the proposed project would last approximately 5 months, and the anticipated average number of workers per day on the construction site would be 4 persons. Therefore, the amount of wastewater estimated to be generated during project construction activities would be nominal and within the available capacity of existing service providers.

Operation of the proposed project would be the same as the existing use and would not include any uses that require wastewater treatment. The proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities. Impacts would be **less than significant**, and no mitigation is required.

d. Would the project 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?

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Construction demolition debris is anticipated to

be collected and transferred to the Rock Creek Solid Waste Facility located at 12021 Hunt Road in Farmington or the Highway 59 Disposal Site Landfill located at 7040 North Highway 59 in Merced. Rock Creek Landfill has a maximum daily throughput of 500 tons per day and a total permitted capacity of 7,651,000 cubic yards with an anticipated closing date of September 30, 2035.⁶⁴ Highway 59 Landfill has a maximum daily throughout of 1,500 tons per day and a total permitted capacity of 30,012,352 cubic yards with an anticipated closing date of January 1, 2030.⁶⁵ Construction debris generated by the proposed project is anticipated to be nominal and well below the 500 or 1,500 tons per day that the nearest landfills can accommodate. Additionally, California law requires 50 percent of all solid waste to be diverted from landfills through source reduction, recycling, and composting. The proposed project, once operational, would not generate solid waste as it is a transportation (bridge improvement) project. As such, the proposed project would not generate an amount of solid waste in excess of State or local standards, or in excess of the capacity of the Rock Creek Solid Waste Facility or Highway 59 Disposal Site Landfill. Impacts would be **less than significant**, and no mitigation is required.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed project would only generate construction debris, which would be recycled as appropriate and consistent with federal, State, and local management and solid waste reduction statutes. Per California law, 50 percent of the construction debris that would be generated during project construction would be diverted from the landfill through source reduction, recycling, and composting. The proposed project involves improvements to an existing bridge and does not include uses that generate any solid waste during project operations. Operation of the proposed project would not increase the demand for solid waste disposal compared to baseline conditions. Therefore, the proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. **No impact** would occur, and no mitigation is required.

⁶⁴ California Department of Resources Recycling and Recovery (CalRecycle). 2019. *SWIS Facility/Site Activity Details, Rock Creek Landfill (05-AA-0023)*. Website: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/159?siteID=157> (accessed October 5, 2022).

⁶⁵ California Department of Resources Recycling and Recovery (CalRecycle). , 2019. *SWIS Facility/Site Activity Details, Highway 59 Landfill (24-AA-0001)*. Website: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2908?siteID=1863> (accessed October 5, 2022).

3.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
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?	☐	☒	☐	☐
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?	☐	☒	☐	☐
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?	☐	☐	☒	☐

3.20.1 Impact Analysis

CAL FIRE has mapped areas of significant fire hazards in the State through its Fire and Resources Assessment Program (FRAP). These maps place areas of California into different Fire Hazard Severity Zones (FHSZs) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather where urban brushfire could result in catastrophic losses. As part of this mapping system, land where CAL FIRE is responsible for wildland protection and that is generally located in unincorporated areas is classified as an SRA. Where local fire protection agencies are responsible for wildfire protection, the land is classified as a Local Responsibility Area (LRA). CAL FIRE currently identifies the project site as an SRA Very High FHSZ.⁶⁶ CAL FIRE would be responsible for wildfire attenuation within the project site and surrounding area.

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The Calaveras County Emergency Operations Plan⁶⁷ and Emergency Operations Plan for Tuolumne County⁶⁸ are applicable within the project site and surrounding area. Construction activities would require the bridge to be closed for approximately five months, which could affect emergency response. Roadway closure barriers and signage would be installed along Big Trees Parkway to alert motorists of the bridge/road closure. Park facilities east (south) of the bridge would not be

⁶⁶ California Department of Forestry and Fire Protection (CAL FIRE). Fire and Resource Assessment Program. *FHSZ Viewer*. Website: <https://egis.fire.ca.gov/FHSZ/> (accessed October 5, 2022).

⁶⁷ Calaveras County Office of Emergency Services. 2019. *Calaveras County Emergency Operations Plan, Base Plan*. September.

⁶⁸ Tuolumne County. 2012. *Emergency Operations Plan for Tuolumne County, Part I: Basic Plan*. June.

accessible to the public during construction. Facilities closed during construction include Oak Leaf Spring Picnic Area, South Grove Trailhead, Beaver Creek Campsites, and Beaver Creek Picnic Area. Fire access roads are present beyond the South Grove area; however, access is controlled by locked gates and the distance and road surface is not suitable for public access. Fire personnel may continue to access these areas by using fire roads originating from other areas, where feasible. Park facilities west of the bridge would remain open to the public during construction.

As described in **Mitigation Measure TR-1** in Section 3.17, Transportation, the DPR would be required to prepare a Transportation Management Plan (TMP) during final design to address detours and notification for emergency service providers, local agencies, and the public. The TMP shall be developed in coordination with emergency service providers, DPR, and Tuolumne and Calaveras Counties to address road closures and traffic control. The TMP would also require DPR to provide regular communication to emergency service providers throughout the construction period in order to minimize disruption associated with lane closures. Additionally, **Mitigation Measure HAZ-4** would require DPR to coordinate with CAL FIRE and other local fire agencies such as USFS and to plan for increased patrols and lookouts on the Tuolumne County side of the North Fork Stanislaus River during the construction-period bridge closure. With implementation of **Mitigation Measures TR-1** and **HAZ-4**, temporary impacts to adopted emergency response or emergency evacuation plans during construction would be reduced to **less than significant** levels.

The proposed project would rehabilitate an existing bridge. After the completion of construction, operation of the proposed project would not result in a change in traffic volume or access to the project site or surrounding areas. Therefore, operation of the proposed project would have **no impact** on emergency response times or adopted emergency response or evacuation plans compared to existing conditions.

b. Would the project, 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?

During project construction, BMPs would be implemented to reduce potential ignition of fires as required by **Mitigation Measure HAZ-6**, as detailed in Section 3.9, Hazards and Hazardous Materials. BMPs would include installing spark arrestors on construction equipment, reducing construction activities that may create sparks during windy weather, ensuring availability of fire extinguishers on site, and ensuring staged equipment is secure.

Upon completion of construction, the proposed project would not alter the risk or impacts of wildland fires to the project site and surrounding area as compared to the existing conditions. The project itself would not exacerbate wildfire risks and expose park patrons to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, with standard conditions in place, impacts would be **less than significant**.

c. Would the project 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?

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. Utilities such as natural gas lines, telecommunication infrastructure, and power poles/power lines are not located within the project footprint and would not require relocation. No temporary utilities would be installed as part of this project and power generation for construction would be delivered by portable generators.

Implementation of the proposed project may exacerbate fire risk during construction activities; however, these risks would be temporary in nature and BMPs would be implemented as detailed in **Mitigation Measure HAZ-6** (e.g., spark arrestors on construction equipment, fire extinguisher availability, reduction in spark-generating construction activity on windy days). Implementation of these standard BMPs would ensure that the fire risk during construction would be less than significant. Once operational, the project would not pose an ongoing fire risk. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. With implementation of **Mitigation Measure HAZ-6**, this impact would be **less than significant**.

d. Would the project 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?

The proposed project would include the replacement of the deteriorated and temporarily reinforced concrete roadway deck, walkway, and guardrail system at the Big Trees Parkway bridge over the North Fork Stanislaus River. The project would also involve installation of cover plates on the girders, installation of seismic restraints at the piers and abutments, seismic retrofit of the pier foundations, and roadway approach improvements. As detailed in Section 3.10, Hydrology and Water Quality, drainage patterns at the project site and in surrounding areas would not be significantly impacted by project construction because minimal soil/land disturbance would occur and the proposed project would result in a minimal increase in impervious surfaces (approximately 0.01 acre). Furthermore, implementation of the SWSLPP, which entails the preparation and implementation of an Erosion and Sediment Control Plan would be required and the project would be required to comply with requirements set forth by the CDFW Lake and Streambed Alteration Agreement. Compliance with these requirements would ensure that the proposed project would not result in drainage changes or erosion that may contribute to downstream landslides or flooding.

After the completion of project construction, the newly renovated bridge on Big Trees Parkway crossing the North Fork Stanislaus River would operate as under existing conditions. Overall, the aforementioned improvements would not increase exposure of local residents and/or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be **less than significant**.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	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?	☐	☒	☐	☐
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.)	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Impact Analysis

- 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?*

This Initial Study/Mitigated Negative Declaration identifies mitigation measures that would reduce potential impacts on the environment. Implementation of **Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7** would ensure that potential impacts to special-status species and natural habitats would be reduced to **less than significant** levels. Implementation of **Mitigation Measures CUL-1 and CUL-2** would ensure that potential impacts to cultural resources and tribal cultural resources would be reduced to **less than significant** levels, while implementation of **Mitigation Measure GEO-1** would ensure that potential impacts related to the unanticipated discovery of a paleontological resource during construction would be reduced to **less than significant** levels. Additionally, implementation of **Mitigation Measures BIO-5, HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, and TR-1** would ensure that impacts related to the transportation, use, disposal, or accidental release of hazardous materials would be reduced to **less than significant** levels and would not degrade the quality of the environment. Finally, implementation of **Mitigation Measures BIO-5, HAZ-1, and HAZ-2, and Regulatory Compliance Measures WQ-1 and WQ-2** would ensure that impacts related to water quality, including storm water and waste discharge, erosion and sediment, and spill prevention, would be reduced to **less than significant** levels and would not degrade the quality of the environment.

Therefore, the incorporation of mitigation measures, would ensure that development of the proposed project would not: (1) degrade the quality of the environment; (2) substantially reduce the habitat of a fish or wildlife species; (3) cause a fish or wildlife species population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) reduce the number or restrict the range of a rare or endangered plant or animal; or (6) eliminate important examples of the major periods of California history. Therefore, this impact would be **less than significant**.

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)?

The proposed project's impacts would be individually limited and not cumulatively considerable due to the site-specific nature of the potential impacts. The potentially significant impacts that can be reduced to a **less than significant level** with implementation of recommended mitigation measures include the topics of biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, transportation, tribal cultural resources, and wildfire. These impacts would primarily be related to construction-period activities, would be temporary in nature, and would not substantially contribute to any potential cumulative impacts associated with these topics.

For the topic of biological resources, implementation of **Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7** would ensure that potential impacts to special-status species and natural habitats are reduced to a **less than significant** level.

For the topic of cultural resources, significant impacts related to previously undiscovered cultural resources or human remains would be reduced to **less than significant** levels with implementation of **Mitigation Measures CUL-1 and CUL-2**.

For the topic of geology and soils, significant impacts related to soil erosion would be reduced to **less than significant** levels with implementation of **Regulatory Compliance Measure WQ-1**, and potential impacts to paleontological resources would be reduced to **less than significant** levels with implementation of **Mitigation Measure GEO-1**.

For the topic of hazards and hazardous materials, significant impacts related to the transportation, use, disposal, or accidental release of hazardous materials would be reduced to **less than significant** levels with implementation of **Mitigation Measures BIO-5, HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, and TR-1**.

For the topic of hydrology and water quality, significant impacts related to water quality, including storm water and waste discharge, erosion and sediment, and spill prevention, would be reduced to **less than significant** levels with implementation of **Mitigation Measure BIO-5, and Regulatory Compliance Measures WQ-1 and WQ-2**.

For the topic of transportation, significant impacts related to emergency services would be reduced to **less than significant** levels with implementation of **Mitigation Measures TR-1 and HAZ-4**.

For the topic of tribal cultural resources, potentially significant impacts related to tribal cultural resources would be reduced to **less than significant** levels with implementation of **Mitigation Measures CUL-1 and CUL-2**.

For the topic of wildfire, potentially significant impacts related to emergency response or evacuation plans, exacerbation of wildfire risks and related exposure to pollutant concentrations, installation or maintenance of infrastructure that may temporarily exacerbate fire risk, and exposure to risk of fire-related floods and landslides would be **less than significant** with implementation of **Mitigation Measures HAZ-4, HAZ-5, and TR-1**.

For the topics of aesthetics, agriculture and forestry resources, air quality, energy, greenhouse gas emissions, land use and planning, mineral resources, noise, population and housing, public services, recreation, and utilities and service systems, project design and compliance with regulatory requirements would ensure that the project would have **no impacts or less than significant impacts**; therefore, the project would not substantially contribute to any potential cumulative impacts for these topics. All environmental impacts that could occur as a result of the proposed project would be reduced to a **less than significant** level through implementation of the mitigation measures recommended in this document.

Implementation of these measures would ensure that the impacts of the project would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development. Therefore, this impact would be **less than significant with mitigation**.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project's potential to result in environmental effects that could directly or indirectly impact human beings has been evaluated in this IS. With implementation of the recommended mitigation measures, all environmental effects that could adversely affect human beings would be **less than significant**.

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APPENDIX A

NATURAL ENVIRONMENT STUDY



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