Mokelumne River Bridge Upgrade

On State Route 49 between the city of Jackson and Mokelumne Hill
10-CAL/AMA-49-30.9-0.0
EA 10-0X752 and Project ID 1017000004
SCH Number 2020019051

Initial Study
with Negative Declaration

Prepared by the
State of California Department of Transportation

June 2020

Caltrans

General Information About This Document

The California Department of Transportation (Caltrans) has prepared this Initial Study with Negative Declaration for the project at the county line between Calaveras County and Amador County in California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

The Initial Study circulated to the public for 30 days from December 20, 2019, to January 16, 2020. It also circulated to public agencies from January 17, 2020, to February 14, 2020. Comments submitted during those times are included in Appendix B. Minor editorial changes and clarifications have not been indicated. This document may be downloaded at https://dot.ca.gov/caltrans-near-me/district-10/district-10-current-projects.

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SCH Number 2020019051
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Upgrade bridge rails and widen the deck to provide shoulders on the Mokelumne River Bridge on State Route 49 between the city of Jackson and Mokelumne Hill

Initial Study with Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation
and
Responsible Agencies: California Transportation Commission

Philip Vallejo

Philip Vallejo
Environmental Office Chief, North
California Department of Transportation
CEQA Lead Agency

6/23/2020
Date

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Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) will upgrade the Mokelumne River Bridge (Bridge Number 26-0012) on State Route 49 in Amador County and Calaveras County. The project will replace non-standard bridge rails with new rails that meet current standards and widen shoulders to 4 feet on either side of the traveled way to enhance the mobility of pedestrians and bicyclists.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the project would not have a significant effect on the environment for the following reasons.

The project would have no effect on aesthetics, agriculture and forest resources, air quality, biological resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, and utilities and service systems.

The project would have no significant effect on cultural resources, greenhouse gas emissions, and wildfire.

Philip Vallejo

Philip Vallejo
Environmental Office Chief, North
California Department of Transportation
CEQA Lead Agency

6/23/2020

Date

Table of Contents

List of Figures

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (known as CEQA).

Caltrans will upgrade the bridge rails and widen the shoulders on both sides of the traveled way on the Mokelumne River Bridge (Bridge Number 26-0012) on State Route 49, spanning the border of Amador County and Calaveras County.

The project is proposed to receive funding from the Bridge Rail Replacement and Upgrade program. The project is estimated to cost $3.914 million.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to upgrade bridge rails on the Mokelumne River Bridge to meet current crash safety standards and to enhance the mobility of pedestrian and bicycle traffic crossing the bridge.

1.2.2 Need

A Structures Replacement and Improvement Needs Report, prepared by the Caltrans Office of Structure Maintenance and Investigations, identified the need to upgrade the non-standard concrete baluster bridge rails on the Mokelumne River Bridge on State Route 49 at the Amador/Calaveras county line. Also, at this location, the current narrow shoulder width on the bridge does not meet the needs of bicycle and pedestrian traffic traveling through the area.

1.3 Project Description

This section describes the project and the alternatives developed to meet the purpose and need of the project while avoiding or minimizing environmental impacts.

Caltrans will upgrade the bridge rails and widen the shoulders on both sides of the traveled way on the Mokelumne River Bridge (Bridge Number 26-0012) on State Route 49 at the county line between Calaveras County and Amador County where the bridge spans the Mokelumne River. The work will occur

between post mile 30.9 in Calaveras County and post mile 0.0 in Amador County. Figures 1-1 and 1-2 show the project vicinity map and project location map.

Figure 1-1 Project Vicinity Map

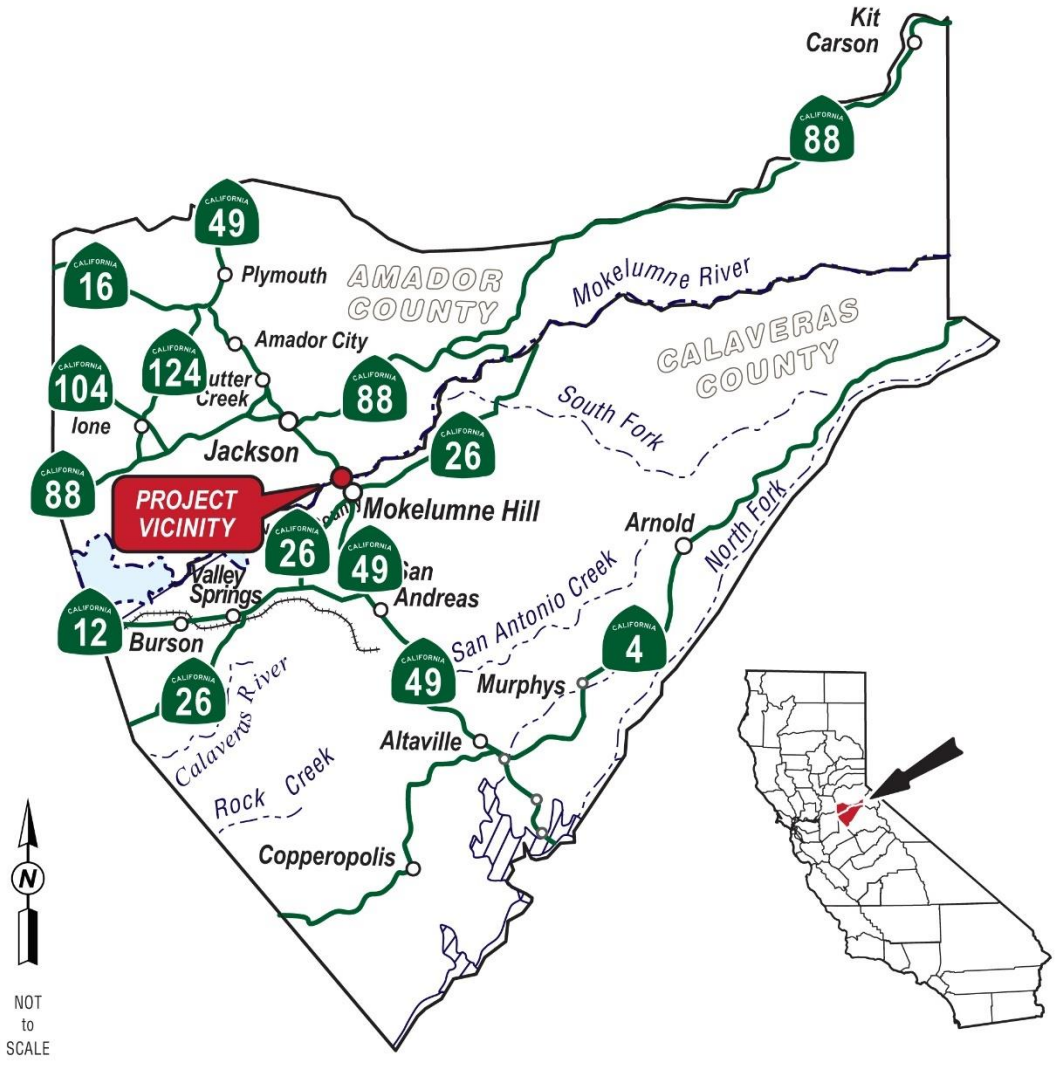
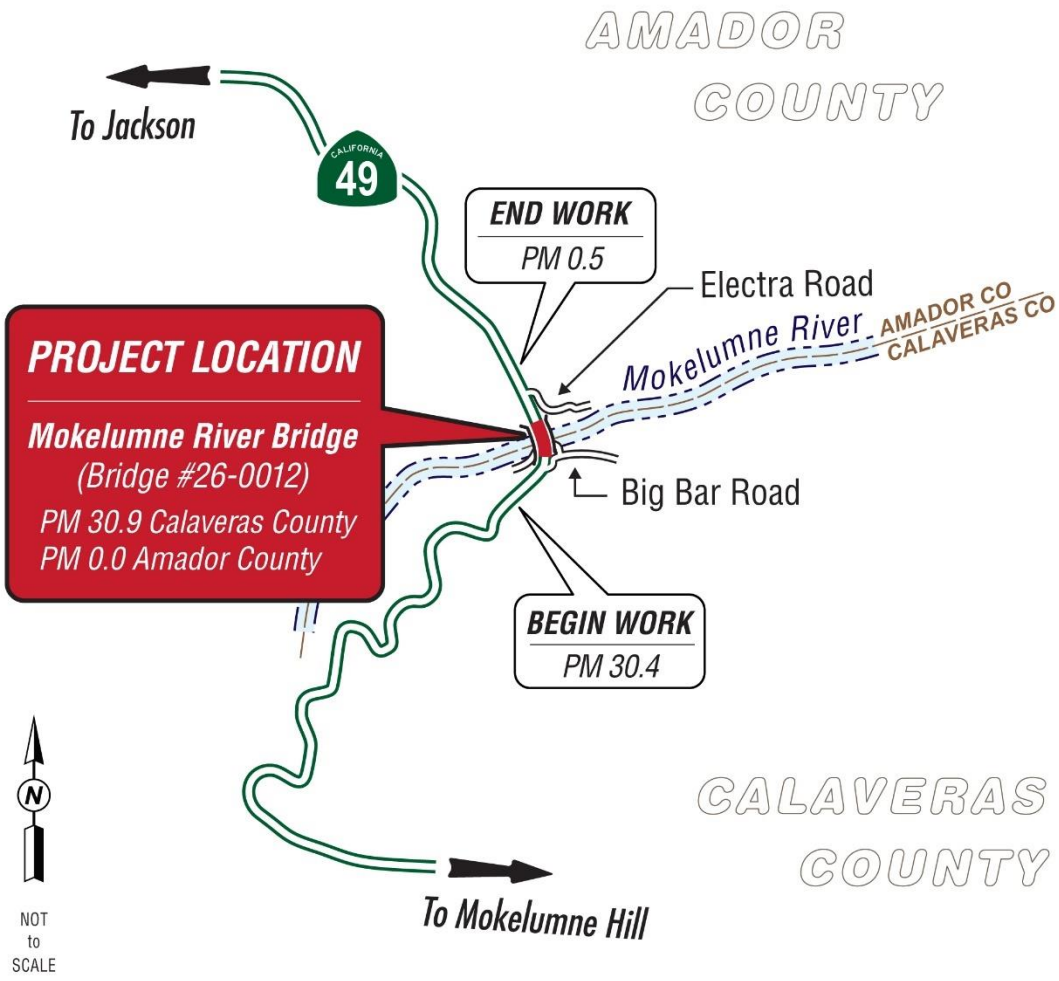


Figure 1-2 Project Location Map



The bridge rails will be upgraded to comply with current standard crash test criteria. The existing bridge rails are composed of non-standard concrete baluster that is now at the end of its service life.

The project will widen the shoulders of the bridge to 4 feet to enable pedestrians and bicyclists to share the roadway and provide more space for highway maintenance work along the shoulders. The lack of adequate shoulder space makes it difficult for pedestrians and bicyclists to cross the bridge and does not provide sufficient space for maintenance workers to service the roadway and bridge structure.

The Mokelumne River Bridge carries State Route 49 traffic across the river between the city of Jackson and the census-designated town of Mokelumne Hill. State Route 49 is nicknamed the “Golden Chain Highway” through this region. Locally, it provides access to area businesses and residences;

regionally, it is a popular route for tourists visiting California's famed Gold Country.

The Mokelumne River Bridge was built in 1952 and is 365 feet long with 90-foot-long spans. It carries two lanes of traffic. Traffic volume data show the annual average daily traffic count for the bridge is about 8,300 vehicles per day.

The Mokelumne River Bridge is in an area known as Big Bar, at roughly 600 feet elevation in the Central Sierra Nevada Foothills. At this lower elevation of the Sierra, weather patterns continue to match the Mediterranean climate seen throughout the Central Valley, with hot, dry summers and cool, wet winters. Rainfall totals at this elevation average between 20 inches and 30 inches annually. Precipitation in the Central Sierra Nevada Foothills falls almost entirely as rain, similar to any area below 3,500 feet of elevation.

At this elevation, the vegetation transitions from the open woodlands and grasslands of the California prairie, which extends to about 300 feet above mean sea level, to the gray pine-blue oak woodlands that characterize the Sierra Foothills below the snowline. The mild climate led to human habitation in the area, with the most recent pre-European residents being mostly members of the Northern Sierra Miwok, one of five distinct cultural groups of the Eastern Miwok.

Historically, the area was full of wildlife, including black-tailed deer, grizzly bears, black bears, pumas, coyotes, bobcats, and gray foxes. Rabbits, small mammals, fishes, and many types of birds, including raptors, were also once abundant, and they continue to be common in the area.

1.4 Project Alternatives

This section describes the proposed action and the alternatives that were developed to meet the identified purpose and need of the project. Project alternatives considered construction effort, environmental impacts, and expenditure of public resources. The alternatives were developed by an interdisciplinary project development team consisting of Caltrans staff from the divisions of Design, Structure Design, Traffic Operations, Environmental Analysis, Maintenance, and Right-of-Way.

Sections 1.4.1 and 1.4.2 describe the Build Alternative and the No-Build (No-Action) Alternative that are under consideration. Section 1.5 describes two other build alternatives that were considered but rejected earlier in the process.

1.4.1 Build Alternative

The Build Alternative proposes to remove and replace the existing obsolete concrete baluster railing with standard bridge rails. The two traffic lanes would be 12 feet wide with 4-foot shoulders. The existing 2-foot-wide concrete curb/sidewalls on each side of the bridge would be deconstructed; an additional 2 feet would be added to each side of the bridge deck to provide the 4-foot-wide shoulders. The wider shoulders would give pedestrian and bicycle traffic more room to travel through the area. Though the 4-foot-wide shoulders would not meet current standards for shoulder width, they would provide extra space for maintenance workers, pedestrians, and bicyclists.

The work would include strengthening the girder to accommodate the installation of new railing on each side of the bridge. The rail upgrade would involve attaching a steel railing to the concrete overhang.

Construction would take place entirely from cantilever scaffolding off the existing bridge deck, and person-lifts placed on support pads on the ground below. No material or equipment would be placed in the water. The person-lifts would be transported down the bank of the Mokelumne River on rubber-tired equipment after the existing brush and vegetation have been trimmed to allow access. Temporary support pads would be built, one at each corner of the bridge structure, to support the person-lifts in a stable state to protect the workers using them.

During construction, one lane of traffic would be closed by the placement of K-rail, and motorists would share the open lane through the use of a temporary traffic signal. This would allow construction crews to work on one side of the bridge at a time. A debris catchment system would be attached to the bottom of the bridge soffit to prevent objects from falling into the river. No work on the bridge support piers or in the river channel is required. Additionally, the project would temporarily relocate East Bay Municipal Utility District's measurement devices on the bridge during construction.

Project construction would take about 90 working days.

This project contains standard project measures, which are included as part of the project description. The standard project measures are used on most, if not all, Caltrans projects, and were not developed in response to any specific environmental impact resulting from the project. These standard or pre-existing measures allow little discretion regarding their implementation and are not specific to the circumstances of a particular project. These measures are addressed in more detail in the Environmental Consequences section in Chapter 2 and the Avoidance, Minimization, Mitigation, and/or Standard Measures Summary in Appendix E.

- AQ-1: Caltrans' Standard Specifications, Air Quality, Section 14-9.

- AQ-2: Caltrans' Standard Specifications, Dust Control, Section 10-5.
- BIO-1: Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-6: Weed-Free Construction Equipment and Vehicles.
- BIO-7: Equipment and Materials Storage, Staging, and Use in Weed-Free Areas.
- BIO-8: Weed Control During Construction.
- BIO-9: Weed-Free Erosion Control and Revegetation Treatments.
- BIO-13: Migratory Birds and Raptors - Remove Nesting Habitat During Non-Nesting Season.
- BIO-14: Migratory Birds and Raptors - Exclusionary Devices.
- BIO-15: Migratory Birds and Raptors - Pre-Construction Surveys During Nesting Season.
- BIO-16: Migratory Birds and Raptors - Protective Buffers.
- BIO-18: Construction Site Best Management Practices.
- CR-1: Standard provisions that deal with the discovery of unexpected cultural materials will be included in the project plans and specifications.
- CR-2: Standard provisions that deal with the discovery of unexpected human remains will be included in the project plans and specifications.
- HAZ-1: Standard provisions that deal with lead compliance plans.
- HAZ-2: Caltrans' Standard Special Provisions concerning lead-based paint abatement.
- HAZ-3: Caltrans' Standard Special Provisions concerning asbestos-containing materials abatement.
- NOI-1: Caltrans' Standard Specifications Section 14-8.02 "Noise Control."
- NOI-2: All equipment will have sound-control devices that are just as effective as those on the original equipment. Equipment will not have an unmuffled exhaust.
- NOI-3: As directed by Caltrans, the contractor will implement appropriate additional noise minimization measures.
- TRA-1: A Transportation Management Plan will be prepared for the project.
- WQ-1: Caltrans' Statewide National Pollutant Discharge Elimination System Permit compliance.
- WQ-2: Water Pollution Control Plan or Stormwater Pollution Prevention Plan.
- WQ-3: Containment Measures/Construction Site Best Management Practices.

- WQ-4: Cast-in-place concrete structures should have enough time to cure before the rainy season.
- WQ-5: A concrete-treated permeable base should not be used as permeable material for underdrain systems that discharge to waterways.
- WQ-6: Some of the work areas could be within the 100-year floodplain zone. All materials (e.g., rock, geotextile fabric) used to stabilize temporary access routes will be completely removed when construction is completed.
- WQ-7: The project will incorporate pollution prevention and design measures consistent with the 2015 Caltrans Stormwater Management Plan (Caltrans 2015) to meet water quality objectives. This plan has been revised to comply with the requirements of the Caltrans Statewide National Pollutant Discharge Elimination System Permit (Order 2012-0011-DWQ). In addition to the Best Management Practices already included, the following permanent stormwater treatment Best Management Practices should be considered where feasible:
    - Energy dissipation devices (e.g., rock slope protection, check dams)
    - Bioengineered streambank stabilization methods (e.g., willow wattles, brush layering)
- WQ-8: Environmentally Sensitive Areas will be designated and delineated on the contract plans during the design phase to avoid potential discharges and unauthorized disturbances to the creeks, streams, channels, and protected riparian areas.

1.4.2 No-Build (No-Action) Alternative

The No-Build (No-Action) Alternative would leave the bridge rails in their current non-standard condition. The bridge would continue to operate without shoulders, and pedestrians, bicyclists, and maintenance staff would continue to have little room to cross the bridge when vehicle traffic passes through. This would not meet the purpose and need of the project.

1.5 Alternatives Considered but Eliminated from Further Discussion

Three build alternatives were initially considered during the development of the project. A project development team determined Alternatives 2 and 3 were not viable, and they were eliminated from further discussion.

Alternative 2 would have replaced the bridge rail and widened the bridge deck by 6 feet on each side. While Alternative 2 would have met the purpose and need, it would have increased impacts on the wild and scenic and recreational attributes of the Mokelumne River during construction. Alternative

2 would have involved building 12-foot-long reinforced concrete pier extensions on each side of the existing structure, which would have extended about 10 feet below ground. Alternative 2 would have also required a localized temporary cofferdam system in the channel for water diversion. Because of these impacts, Alternative 2 was dropped from further consideration.

Alternative 3 would have replaced the bridge rail only, which would have resulted in two 12-foot-wide lanes with non-standard 2-foot-wide shoulders. The non-standard shoulder width would have required a design exception and would have not met the need of improving road sharing with pedestrians and bicyclists or offering maintenance crews a refuge zone. For these reasons, Alternative 3 was dropped from further consideration.

1.6 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers, Sacramento District	Clean Water Act Section 404	Submit application during the project's final design phase.
Regional Water Quality Control Board	Clean Water Act Section 401	Submit application during the project's final design phase.
California Department of Fish and Wildlife	Lake or Streambed Alteration Agreement	Submit application during the project's final design phase.

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

As part of the scoping and environmental analysis done for the project, the following environmental issues were considered, but no adverse impacts were identified. There is no further discussion of these issues in this document:

- Existing and Future Land Use—The project will improve an existing bridge. All improvements will take place within a Caltrans right-of-way, and no change in land use is expected. The project is consistent with the Calaveras County General Plan and the Amador County General Plan and does not conflict with the goals or policies of either plan. (Calaveras County Draft General Plan Draft Environmental Impact Report, June 2018; Amador County General Plan, October 2016)
- Consistency with State, Regional, and Local Plans and Programs—The project will improve an existing bridge. The project is consistent with the Calaveras County General Plan and the Amador County General Plan and does not conflict with the goals or policies of either plan. (Calaveras County Draft General Plan Draft Environmental Impact Report, June 2018; Amador County General Plan, October 2016)
- Coastal Zone—The project is in the Sierra Nevada foothills, which is more than 100 miles from the nearest coastal zone.
- Wild and Scenic River—This section of the main stem of the Mokelumne River is state-listed as a Wild and Scenic River, but not federally listed as such. After reviewing the material provided by the California Natural Resources Agency, a project development team determined that project activities will not impact the free-flowing nature of the river. After consultation with the California Natural Resources Agency, a project development team received concurrence from the agency (see Chapter 4 Comments and Coordination). (Natural Environment Study – Minimal Impacts, August 2019)
- Farmland—There is no farmland near the project site.
- Timberland—There is no timberland near the project site.
- Growth—The project will improve an existing bridge. It will not increase capacity and will not encourage growth in the area.

- Community Character and Cohesion—The project will improve an existing bridge. It will not increase capacity, induce growth, or change access to nearby communities.
- Relocations and Real Property Acquisition—All construction activities associated with the project will take place within an existing state right-of-way. No property will be acquired, and no homes or businesses will be relocated to accommodate the project.
- Environmental Justice—The project will improve an existing bridge. All construction activities associated with the project will take place within an existing state right-of-way. No property will be acquired, and no homes or businesses will be relocated to accommodate the project. The project will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 because no minority or low-income populations exist within the project area. See Appendix A for the Caltrans Title VI Policy Statement.
- Utilities and Emergency Services—The project will improve an existing bridge. It will not increase capacity, induce growth, or change access to nearby communities. Except for temporary construction impacts to traffic, the project will not affect emergency services, and no utility relocations are expected as part of construction activities.
- Traffic and Transportation/Pedestrian and Bicycle Facilities—The project will improve an existing bridge. The improvements will slightly increase pedestrian and bicycle access.
- Visual and Aesthetics—The project will improve an existing bridge. The improvements will not constitute a visual impact in the area.
- Hydrology and Floodplain—The project will improve an existing bridge. The bridge improvements will not impact the hydrology of the area or the river. The project is partially within Zone A, which is subject to a 1 percent annual chance for flood; however, the project will not create a significant floodplain encroachment. (Location Hydraulic/Floodplain Study, October 2016)
- Water Quality and Stormwater Runoff—The project will have no long-term effect on water quality or stormwater runoff. There may be temporary, short-term effects on water quality during construction activities. The project has been designed to include best management practices and Caltrans' Standard Provisions, which will result in the contractor protecting the river from runoff. (Water Quality Study and Natural Environment Study – Minimal Impacts, August 2019)
- Geology, Soils, Seismicity, and Topography—The project will have no impact on geology because there will be minor ground disturbance associated with construction activities, and the project site is not in an

area noted for excessive ground movement. (Alquist-Priolo Earthquake Fault Zoning Map, September 2019)

- Paleontology—The project will have no impact on paleontology. There will be minor ground disturbance associated with construction activities, and there is no evidence of paleontological resources in the area.
- Hazardous Waste and Materials—The project will renovate an existing bridge. Bridges are known to be built with asbestos-containing materials, including concrete, bearing pads, shims, and mastic material. A project-specific survey will be conducted before construction starts to ensure that all asbestos-containing materials are identified for safe and appropriate handling during removal and disposal. Painted surfaces on this bridge, including bridge railings, may have lead-based paints. A project-specific survey for lead-based paints will be conducted before construction starts to ensure that all lead-containing materials are identified for safe and appropriate handling during removal and disposal. The contractor will be required to comply with Caltrans' Standard Special Provisions concerning lead-based paint and asbestos-containing materials abatement, and a lead compliance plan will be required. (Initial Site Assessment, August 2019)
- Air Quality—The project area is in the Mountain Counties Air Basin. Amador County and Calaveras County are in the attainment for all pollutants except ozone, which is considered a regional pollutant. This project is exempt from project-level air quality conformity. (Air Conformity Study, August 2019)
- Noise—The project, which is in a mostly rural area, is not a Type 1 project. A few homes sit about 200 to 300 feet north of the existing bridge. During project construction, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications Section 14-8.02 "Noise Control," which states that noise levels generated during construction will comply with applicable local, state, and federal regulations. The section also states that all equipment will be fitted with adequate mufflers according to the manufacturers' specifications. (Noise Study, August 2019)
- Natural Communities—The project will have no impact on natural communities. (Natural Environment Study – Minimal Impacts, August 2019)
- Wetlands—No potentially jurisdictional wetlands lie in the project area. Other waters do exist and are discussed in Section 2.2, Wetlands and Other Waters. (Natural Environment Study – Minimal Impacts, August 2019)
- Plant Species—Biologists did not see any special-status plant species during surveys. The project will include minor ground disturbance and

trimming of vegetation to facilitate the person-lift access at the corners of the bridge structure. The California Native Plant Society's lists of possible occurrences in the project vicinity are included in the Natural Environment Study – Minimal Impacts, which is available upon request (Natural Environment Study – Minimal Impacts, August 2019).

- Threatened and Endangered Species—Biologists did not find any threatened or endangered species in the project area during surveys. A "no effect" determination has been made for all federally listed species, and a "no impact" determination has been made for all state-listed species. No Essential Fish Habitat is within the project areas. The California Department of Fish and Wildlife's species list is included in the supporting technical study, which is available to the public upon request. (Natural Environment Study – Minimal Impacts, August 2019)
- Invasive Species—During biological surveys, invasive plant species (Scotch broom and tree of heaven) and animal species (American bullfrog) were found. With the incorporation of Caltrans' Standard Specifications or any special conditions under Sections 3-4.03E(3) and NS-08 of Caltrans' Construction Site Best Management Practices in the construction contract, this project will have no impact on the spread of noxious plant or animal species. (Natural Environment Study – Minimal Impacts, August 2019)
- Cumulative Impacts—The project will renovate an existing bridge. It will not increase capacity, induce growth, change access to nearby communities, or contribute to cumulative impacts.

2.1 Human Environment

2.1.1 Parks and Recreational Facilities

Affected Environment

The project will rehabilitate an existing bridge structure at Big Bar in Calaveras County. The bridge spans the Mokelumne River at the county line between Amador County and Calaveras County. Next to the southern end of the bridge, Big Bar Road intersects with State Route 49. Big Bar Road provides access to the Big Bar Boat Launch and Recreation Area (Big Bar), which consists of some pit toilets, a paved parking lot, and an unstriped, paved space suitable for assembling or disassembling rafts or kayaks. Between the parking lot and the river are informal trails that lead to the shoreline. The area has been in use every time the environmental team visited. People were seen panning for gold, fly fishing, picnicking, or just enjoying the scenic location.

The site is privately owned but is under a lease from the U.S. Bureau of Land Management, which maintains the day-use area. Because the land is privately owned, Big Bar is not protected by the California Park Preservation

Act of 1971, which requires that the "operating entity" own the land on which the park is situated. In response to our draft environmental document, and our letter notifying the U.S. Bureau of Land Management of our finding that the proposed project did not have a Section 4(f) impact on Big Bar, the U.S. Bureau of Land Management concurred. It also asked that construction crews be provided sanitary facilities at the job site and be advised not to use the public facilities. Per Caltrans Standard Specifications 1526, all contractors must provide portable toilet facilities at Caltrans' job sites for construction staff.

The East Bay Municipal Utility District has a small equipment hut just before the parking lot widens out, as well as some water-level and water-velocity metering equipment attached to the bridge structure.

The Big Bar Recreation Area is a popular ending spot or halfway point for kayakers and rafters using the Mokelumne River. Roughly 3 miles upstream of Big Bar is a day-use area associated with the Electra Power Plant, owned and maintained by the Pacific Gas and Electric Company. The put-in area for river runners is well marked, and there is a large beach for swimmers and boat launches. Within the past several years, another pullout area at Middle Bar, 2 miles farther downstream from Big Bar, has been developed for public use.

While commercial whitewater rafting outfitters are prohibited from running trips down the river, the area is used for training or warm-up runs for such water activities, and as such, attracts substantial use from late spring through mid-autumn. Each year, the Pacific Gas and Electric Company, as part of its Federal Energy Regulatory Commission license, provides recreational flows on varying weekend days between May and September, depending on water year type. A calendar is published, generally in the spring, with the dates and times that higher recreational flows will be provided on the Mokelumne River during the upcoming rafting/kayaking season. Caltrans will require the contractor to monitor the Pacific Gas and Electric Company website for that posting during the year construction will start. Language will be inserted into the construction contract requiring the contractor to plan the construction schedule to accommodate the rafting schedule.

Environmental Consequences

Originally, it was proposed that the contractor would use the paved area at Big Bar for pre-construction and construction staging. After consultation with the project development team, the environmental and design teams agreed that there is a different staging area available that will not interfere with public access to or use of the Big Bar Recreation Area during construction activities.

The design team worked closely with the environmental team to develop a plan for construction activities that will maintain upstream access to the Big Bar amenities throughout construction, except for briefly at the start of

construction activities when the person-lifts and cantilever catwalks will be put into place. During those activities, swimmers and boaters will be restricted from passing under the work area. It is likely that vehicle traffic using Big Bar Road to gain access to the parking lot may experience brief delays during times that equipment is being moved into or out of the staging area.

On May 1, 2020, the project development team met with interested parties via Cisco Webex to discuss concerns about traffic, access to recreation, and protecting species during construction. The parties agreed to participate in a workshop that Caltrans plans to hold early in the Plans, Specifications, and Estimates phase as the project design advances. During the workshop, Caltrans staff will have more specific answers to community questions about access and traffic solutions for temporary construction impacts.

Traffic delays on State Route 49 will be a daily occurrence due to the reduction to one traffic lane and the installation of a temporary traffic signal. Users of the recreation area will experience some restricted access to the riverbank and the water during pre-construction and construction activities. The project will provide temporary pavement markings during construction to protect access to and egress from both the Big Bar Recreation Area and Electra Road. Flaggers will be provided at both of these access points during periods of high use. Caltrans traffic engineers estimate that the maximum wait time for motorists will be 3 to 4 minutes.

Avoidance, Minimization, and/or Mitigation Measures

Measures will be incorporated into the project to prevent project-related impacts to the Big Bar Boat Launch and Recreation Area. Other measures will be included in the construction contract to protect the access and safety of the public.

- PAR-1: Limiting contractor access to the riverbank on the south side of the river to maintain launch and take-out access for recreational users. The contractor will not conduct construction activities outside the Caltrans right-of-way limit, shown on the map in Figure 4-1 on page 95.
- PAR-2: Establishing high visibility, environmentally sensitive area fencing to make the limits of the construction zone clear to the public and the contractor.
- PAR-3: Adding a unit to normal environmental training to remind construction staff of the possibility of the public occupying areas immediately next to the active construction zone.
- PAR-4: Providing a flagger during periods where the movement of construction material and equipment into or out of the staging area may delay public access to the Big Bar Recreation Area.
- PAR-5: Requiring the contractor to avoid parking or idling construction vehicles in the recreation area parking lot.

- PAR-6: Prohibiting the contractor from placing construction equipment or materials in the parking lot.
- PAR-7: Prohibiting the contractor from using the paved area to stage construction equipment or activities.

2.1.2 Cultural Resources

Regulatory Setting

The term cultural resources as used in this document, refers to the built environment (for example, structures, bridges, railroads, water conveyance systems, places of traditional or cultural importance, and archaeological sites—both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” Laws and regulations dealing with cultural resources include:

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

California Public Resources Code Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the federal register listing criteria. It further requires Caltrans to inventory state-owned structures in its rights-of-way. Procedures for compliance with California Public Resources Code Section 5024 are outlined in a Memorandum of Understanding between Caltrans and the State Historic Preservation Officer, effective January 1, 2015.

Affected Environment

Caltrans archaeologists conducted a cultural evaluation to determine impacts to cultural resources in the project area. The cultural resources impact analysis was used to produce a Historical Resources Compliance Report and Archaeological Survey Report. Both reports were completed in October 2019 and document the cultural resource identification efforts within the study area.

Methodology

Caltrans archaeologists conducted surveys, recorded searches, and engaged in consultation with interested Native American communities, local historical societies, and government agencies regarding the project location and study area. From this work, an unevaluated cultural resource known as CA-AMA-944/H (the Big Bar site) was identified. The Mokelumne River Bridge is within this cultural resource limit; however, the bridge itself is ineligible for listing on either the federal or the state registers.

According to the records search, five previous cultural resources studies have been conducted that were associated with the study area of the project. Based on a 1984 site record, 13 recorded archaeological features of CA-AMA-944/H are next to the project area. All the features except one are outside of the Area of Direct Impact (the area of direct impact that includes construction activities outlined in the engineering plans of the project).

Consultation letters were sent to Native American tribes and individuals. See Chapter 4 for a detailed list. As of March 2020, no responses have been received from the Buena Vista Rancheria of Me-Wuk Indians of California; consultation is still ongoing. A field visit was conducted for the Ione Band of Miwok Indians and the Jackson Rancheria Band of Miwuk Indians, and another took place on February 5, 2020, with the Calaveras Band of Mi-Wuk Indians. Additional documents that discuss the specifics of the project will be provided to the United Auburn Indian Community of the Auburn Rancheria.

In addition to Native American consultation, inquiry letters were sent to local government and county historical societies in August 2019, but no responses have been received.

Study Area

The study area for cultural resources, referred to in cultural reports as the project area limits, is defined in the Public Resources Code 5024 Memorandum of Understanding as “the area or areas within which a state project or activity may cause changes in the character or use of historical resources, should any be present.” The study area was established to include locations where construction-related activities will take place both within Caltrans’ existing right-of-way and where temporary construction easements will be established for staging construction equipment and materials.

The existing Caltrans right-of-way along State Route 49 between post mile 30.9 in Calaveras County and post mile 0.0 in Amador County is within the approximate 45 acres of the study area. A segment of the Mokelumne River, Mokelumne River Bridge, Big Bar Road, and the Big Bar Recreation Area—managed by the Bureau of Land Management—are also within the study area, which extends 1,300 feet east, 500 feet west, and 1,100 feet north of the bridge. Cultural resources in the study area were noted, and their ages and integrity were documented. There is no vertical study area because no excavation is proposed.

The elevation of the project site is about 580 feet above mean sea level. The project site is 4 miles south of Jackson in Calaveras County and Amador County. The project location has not only scenic and recreational attributes but also historical/cultural values. The project site has been designated California Historical Landmark Number 41 for being a prominent gold discovery site in the Sierra Nevada foothills. Humans have occupied the region for more than 2,500 years, and many prehistoric and historical-era cultural sites dot the landscape.

The rushing Mokelumne River below the bridge structure separates Amador County and Calaveras County and flows into the Pardee Reservoir a few miles downstream. The Mokelumne River was mined in 1848, and a mining camp known as Big Bar was established along the river. Crossing the river in those days was made possible by a whaleboat ferry in 1849; it was later swept away in 1852. A toll bridge was built to replace the ferry, and it operated until it too was swept away by the Great Flood of 1862. In 1952, the Mokelumne River Bridge was built.

The early settlement of Big Bar became unincorporated because miners left for other areas. Remnants of its gold rush heritage, such as standing buildings and stone ruins, are evident at the north end of the bridge. Another visible cultural site in the area is an early hydroelectric power station that was built around the turn of the 19th century. However, the cultural site has been reduced to its concrete footings.

The surrounding area is also linked to indigenous people of the western Sierra and Great Basin tribes because the river canyon was used as a historic trade route. The river canyon was also home to the Miwok and their ancestors for more than 2,500 years.

Archaeological Results

As reported in the Historical Resources Compliance Report and Archaeological Survey Report, one previously recorded cultural resource was found. The cultural resource CA-AMA-944/H includes historic mining features, such as dwellings, tailings, and bridge abutments within or directly next to the area of direct impact. One previously recorded bedrock mortar was not seen because it was not accessible to surveyors. Other resources found there

include prospect pits, pocket mines, ditches, horizontal mine access points, cables, concrete footings, a standing 1940s single-story home, remains of a late 19th-century tollhouse structure, and an abandoned roadbed segment. CA-AMA-944/H has not been formally evaluated for the National Register of Historic Places.

Figure 2-1 shows some of the cultural resources found within the project area limits. No previously unidentified cultural resources were found.

The determination for the Mokelumne River Bridge continues to be that it is not eligible for listing in the National Register of Historic Places; it is listed as a Category 5 bridge in the Caltrans Historic Bridge Inventory.

Figure 2-1 Historical and Cultural Resources in the Affected Environment

Environmental Consequences

Only one cultural resource was identified within the project area limits. It is assumed that CA-AMA-944/H is eligible for inclusion in the federal and state registers for this project only because evaluating the resource in its entirety was not possible, in accordance with applicable Public Resources Code 5024 Memorandum of Understanding Stipulation VIII.C.4.

With the implementation of avoidance and minimization measures, a Finding of No Adverse Effect Without Standard Conditions for the project is appropriate and will be prepared by a Caltrans co-principal investigator, prehistoric/historical archaeologist, and reviewed by a principal architectural historian. The finding was submitted to the State Cultural Studies Office for a 15-day review. The project will have no adverse effect on historic properties.

Standard Measures

The following standard measures have been added to this project:

- CR-1: If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- CR-2: If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the county coroner must be contacted. If the coroner thinks the remains are Native American, he or she will notify the Native American Heritage Commission, who, per Public Resources Code Section 5097.98, will then notify the Most Likely Descendant. At this time, the person who discovered the remains will contact Caltrans archaeologists so that they may work with the Most Likely Descendant on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

Avoidance, Minimization, and/or Mitigation Measures

- CR-3: Establish Environmentally Sensitive Areas: Additional direct and indirect impacts on sensitive cultural resources throughout the project area will be avoided or minimized by designating these features outside of the construction impact area as “environmentally sensitive areas.” Information on environmentally sensitive areas will be shown on contract plans and discussed in the Special Provisions. The Special Provisions may include but are not limited to, the use of temporary orange fencing to identify the limit of work in areas next to sensitive resources or to locate and exclude sensitive resources from potential construction impacts. Contractor encroachment into the environmentally sensitive areas will not be allowed, including staging/operating heavy equipment, or casting excavated materials. The provisions will be implemented as the first order of work and remain in place until all construction activities are complete.
- CR-4: Cultural Monitoring: To ensure that project activities will not change or result in an adverse effect, Caltrans will ensure that an archaeologist will review all construction and design plans as developed and monitor construction activities associated with the Mokelumne River Bridge Upgrade.

- CR-5: Should any significant changes that have the potential to impact the site in an adverse manner be made to the plans before or during construction activities, the State Historic Preservation Officer will be notified immediately. Additional documentation, as appropriate, will be completed to assess the impacts of said changes.

2.2 Biological Environment

2.2.1 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations.

Section 404 of the Clean Water Act establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters will be significantly degraded. The Section 404 Permit program is run by the U.S. Army Corps of Engineers with oversight by the U.S. Environmental Protection Agency.

The U.S. Army Corps of Engineers issues two types of 404 Permits: General and Individual. There are two types of General Permits: Regional and Nationwide. Regional Permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effects. Nationwide Permits are issued to allow a variety of minor project activities with no more than minimal effects.

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

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

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

Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The California Department of Fish and Wildlife jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act. In compliance with Section 401 of the Clean Water Act, the Regional Water Quality Control Boards also issue water quality certifications for activities that may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 Permit request.

Affected Environment

Waters of the State of California—Riparian and Non-Riparian

Woody riparian vegetation occurs along both sides of the Mokelumne River, mostly in areas between (above) the annual low-flow zone and (below) the ordinary high-water mark of the river. The top of the bank was preliminarily

determined to occur at about the elevation of the Mokelumne River Bridge abutments. About 0.64 acre of non-federal waters of the State of California occurs within the project area.

Environmental Consequences

Waters of the State of California—Riparian and Non-Riparian

Construction activities will temporarily disturb about 0.11 acre of potentially jurisdictional non-federal waters of the State of California between the ordinary high-water mark and the top of the bank of the Mokelumne River.

Two temporary work pads are proposed on the north side of the Mokelumne River below the top of the bank but above the ordinary high-water mark. Placing and removing the pads will result in placing temporary fill material in 0.02 acre of potentially jurisdictional non-federal waters of the State of California below the top of the bank and above the ordinary high-water mark. Access routes associated with the temporary work pads will require trimming or removing shrubby or woody riparian vegetation below the top of the bank.

About 0.007 acre of potentially jurisdictional non-federal waters of the State of California will be permanently impacted by permanent fill associated with changing the highway embankment. This change may require removing two to five mature interior live oak trees.

The potential for the project to cause adverse impacts to jurisdictional waters of the State of California, and all practicable measures to minimize harm were considered during the initial project development process. The potential for the project to cause adverse impacts to potentially jurisdictional waters of the State of California will be further reduced by implementing avoidance and minimization strategies and design features listed below.

Standard Measures

The following standard measures have been added to this project:

- BIO-1: Restore and Revegetate Temporarily Disturbed Areas Onsite: All temporary fills will be removed from the project area. Disturbed areas within the construction limits will be graded to minimize surface erosion and siltation into receiving waters. Disturbed areas will be recontoured as close to the pre-project condition as possible and stabilized as soon as feasible (no later than October 15 of each construction season) to avoid erosion during subsequent storms and runoff. Permanent erosion control seeding will be performed at all disturbed sites by hydroseeding throughout construction. All sites will be seeded when construction activities are complete.
- WQ-3: Containment Measures/Construction Site Best Management Practices: To contain construction-related material, prevent debris and pollutants from entering receiving waters, and reduce the potential for

discharge to receiving waters, the contractor will follow all applicable guidelines and requirements in Section 13 of the Caltrans 2018 Standard Specifications. The contractor may also follow any Special Provisions in Section 13 regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water. Caltrans staff and the contractor are required to perform routine inspections of the construction area to verify that field Best Management Practices are properly implemented and maintained and are operating effectively and as designed.

The project design team may specify Best Management Practices to be used during construction in addition to, or in place of, other temporary measures selected by the contractor. Project-specific Best Management Practices will address (among other things):

- Spill Prevention and Control *(Caltrans 2017 Best Management Practices Manual WM-4)*
- Material Management (Material Delivery, Use, Storage, and Stockpiles; *Caltrans 2017 Best Management Practices Manual WM-1 through WM-4)*
- Waste Management (Solid, Hazardous, Concrete, Sanitary/Septic Waste, Contaminated Soils; *Caltrans 2017 Best Management Practices Manual WM-5 through WM-10)*
- Vehicle and Equipment Cleaning, Fueling, and Maintenance *(Caltrans 2017 Best Management Practices Manual NS-8 through NS-10)*
- Material and Equipment Use Over Water *(Caltrans 2017 Best Management Practices Manual NS-13)*
- Structure Removal Over or Adjacent to Water *(Caltrans 2017 Best Management Practices Manual NS-15)*
- Paving, Sealing, Sawing, Grooving, and Grinding Activities *(Caltrans 2017 Best Management Practices Manual NS-3)*
- Concrete Curing and Finishing *(Caltrans 2017 Best Management Practices Manual NS-12)*
- Temporary Soil Stabilization *(Caltrans 2017 Best Management Practices Manual SS-1 through SS-10)*
- Temporary Sediment Control *(Caltrans 2017 Best Management Practices Manual SC-1 through SC-10)*
- Temporary Tracking Control *(Caltrans 2017 Best Management Practices Manual TC-1 through TC-3)*
- Temporary Concrete Washouts *(Caltrans 2017 Best Management Practices Manual WM-8)*
- Illicit Connection/Illegal Discharge Detection and Reporting *(Caltrans 2017 Best Management Practices Manual NS-6)*

- Stormwater Pollution Prevention Plan and Water Pollution Control Program Preparation Manual (Caltrans, 2011)
- Construction Site Best Management Practices Manual (Caltrans, 2017)
- Construction Site Monitoring Program Manual (Caltrans, 2013)

Before construction, the contractor will be required to submit either a Water Pollution Control Plan or a Stormwater Pollution Prevention Plan, as appropriate. Caltrans will review and approve the Water Pollution Control Plan or Stormwater Pollution Prevention Plan within seven to 15 days of contract approval. The contractor will develop a Spill Prevention and Control Plan as part of the Water Pollution Control Plan or Stormwater Pollution Prevention Plan. Specific Best Management Practices options will be considered, evaluated, and dependent on factors such as field conditions, changes to construction strategies, and regulatory requirements to protect the beneficial uses of receiving waters. Best Management Practices options will be based on the best conventional and best available technology.

Caltrans staff and the contractor are required to perform routine inspections of the construction area to verify that field Best Management Practices are properly implemented and maintained and are operating effectively and as designed.

Avoidance, Minimization, and/or Mitigation Measures

Waters of the State of California—Riparian and Non-Riparian

- BIO-2: Environmentally Sensitive Area Designation: Additional direct and indirect impacts to sensitive biological resources throughout the project area will be avoided or minimized by designating “environmentally sensitive areas.” All areas outside of the construction footprint will be considered environmentally sensitive areas, as well as any areas determined by a qualified biologist during project planning or during pre-construction surveys to qualify for environmentally sensitive area designation.

  Environmentally sensitive area information will be shown on contract plans and discussed in Section 14-1.02 of the Caltrans 2018 Standard Specifications or any Special Provisions in Section 14-1.02. Environmentally sensitive area provisions may include but are not limited to, the use of temporary orange fencing or other high-visibility marking to identify the limit of work in areas next to sensitive resources or to locate and exclude sensitive resources from potential construction impacts. Contractor encroachment into environmentally sensitive areas will not be allowed. If someone violates this provision, work will stop, and the Caltrans Resident Engineer will be notified immediately. Environmentally sensitive area provisions will be implemented as the first order of work and remain in place until all construction activities have been completed.

- BIO-3: Designated Biologist: A designated biologist or biologists will be onsite during any activities that have the potential to affect sensitive biological resources. The designated biologist will monitor regulated species and habitats, ensure that construction activities do not result in the unintended take of regulated species or disturbances to regulated habitats, and ensure that construction activities comply with any permits, licenses, agreements, or contracts. The designated biologist will also immediately notify the Caltrans Resident Engineer of any take of regulated species, disturbances to regulated habitats, or breaches of environmentally sensitive areas, and prepare, sign, and submit notifications and reports. A designated biologist who performs specialized activities must have demonstrated field experience working with the regulated species or performing specialized tasks. Regulatory agency approval will also be required before Caltrans accepts the designated biologist.

  The designated biologists for the project may be "Department-supplied" biologists—Caltrans biologists or consultant biologists under Task Order contracts to Caltrans—or may be "contractor-supplied" biologists. If contractor-supplied biologists are used as designated biologists, contractor-supplied biologist provisions will be discussed in Section 14-6.03D(1-3) of the Caltrans 2018 Standard Specifications or any Special Provisions in Section 14-6.03D(1-3) that will specify contractor-supplied biologist qualifications, responsibilities, and submittals. Regulatory agency approval will be required before Caltrans accepts a contractor-supplied biologist. Before project construction, the contractor-supplied biologist will prepare a Natural Resources Protection Program within seven days of contract approval per Standard or Special Provisions under Section 14-6.03D(2) of the Caltrans 2018 Standard Specifications. The Natural Resources Protection Program will describe the measures and schedules for protecting biological resources. Caltrans must approve regulatory compliance before construction activities start.
- BIO-4: Limited Operation Period, Stream Zone Construction Activities: It is proposed that construction activities that occur below the top of the bank of the Mokelumne River within the project action area will occur between June 1 and October 15 of any construction season, unless earlier or later dates for in-channel construction activities are approved by the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and Central Valley Regional Water Quality Control Board. By requiring contractors to stick to these dates for stream-zone construction, the project proponent will minimize project effects to receiving waters.
- BIO-5: Worker Environmental Awareness Training for Construction Personnel: Before any work occurs in the project area, a qualified designated biologist, who is familiar with the resources to be protected, will conduct a mandatory contractor/worker environmental awareness training for construction personnel. The awareness training will be

provided to all construction personnel, including contractors and subcontractors, to brief them on the need to avoid and minimize effects to sensitive biological resources within and next to construction areas. Some examples of sensitive biological resources include jurisdictional wetlands and other waters, threatened and endangered species, other special-status species, roosting bats, and nesting birds. The awareness training will also brief construction personnel on the penalties for not complying with applicable state and federal laws and permit requirements. The designated biologist will inform all construction personnel about the life history and habitat requirements of special-status habitats and species known to occur or that have the potential to occur onsite, the importance of maintaining habitats, and the terms and conditions of regulatory requirements.

The worker environmental awareness training will also cover general restrictions and guidelines that all construction personnel must follow to reduce or avoid effects on sensitive biological resources during project construction. The training will include identifying the Best Management Practices written into construction specifications for avoiding and minimizing the discharge of construction materials or other contaminants into jurisdictional waters.

Worker environmental awareness training will be required for any construction personnel intending to enter the construction zone for more than 15 minutes. Any designated biologists conducting worker environmental awareness training must meet the qualifications of regulatory agencies. Copies of training sign-in sheets for construction personnel will be provided to regulatory agencies upon request.

If a contractor-supplied biologist is used, they will prepare and submit copies of the worker environmental awareness training and any associated training materials for Caltrans' review and approval before construction activities start. This complies with Special Provisions of the Caltrans 2018 Standard Specifications under Section 14-6.03(D) "Biological Resource Information Program." Caltrans will accept a Biological Resource Information Program submittal only if it complies with all regulatory provisions.

2.2.2 Animal Species

Regulatory Setting

Many state laws regulate impacts to wildlife. The California Department of Fish and Wildlife is responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the state Endangered Species Act.

Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species section at the

beginning of Chapter 2. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and species of special concern.

State laws and regulations relevant to wildlife include the following:

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

Affected Environment

Foothill Yellow-Legged Frog

The foothill yellow-legged frog is a candidate for California Endangered Species Act listing and is considered a “Species of Concern” by the California Department of Fish and Wildlife.

The foothill yellow-legged frog lives in rocky streams and rivers at low to moderate elevations across a range of vegetation types, including chaparral, oak, woodland, mixed coniferous forest, riparian sycamore and cottonwood forest, and wet meadows. Foothill yellow-legged frogs also live in streams and are found near water with rocky bottoms and on open, sunny banks. They typically occupy small to mid-sized streams with shallow, flowing water. Foothill yellow-legged frogs do not populate suitable habitat if aquatic predators such as American bullfrogs and bass are present.

No foothill yellow-legged frogs were seen during aquatic wildlife surveys conducted for the project. There have been documented occurrences of foothill yellow-legged frogs as recently as 2009 within the Mokelumne River watershed. Based on the lack of recent occurrences recorded within the project vicinity, the frequent water-level changes caused by managed water flow, and lack of detection during surveys, the potential to encounter the foothill yellow-legged frog at this segment of the Mokelumne River is low.

Western Pond Turtle

The California Department of Fish and Wildlife considers the western pond turtle a “Species of Concern.” Western pond turtles require basking sites such as partially submerged logs, rocks, floating vegetation, or open mud banks. In colder areas, western pond turtles hibernate underwater in bottom mud. Nests have been found in many soil types; usually soil must be at least 4 inches deep to nest. Three to 11 eggs are laid between March and August, with an incubation period of 73 to 80 days.

The project area sits within the historic and current range of the western pond turtle. However, the Pacific Gas and Electric Company manages the water flows on this segment of the Mokelumne River, which likely affects the species’ occurrence in the area. No western pond turtles were found during

the aquatic wildlife surveys conducted for the project. Four recorded occurrences of the western pond turtle were found near the city of Jackson as recently as 2002. Based on the lack of recent occurrences recorded within the project vicinity, management of water flows, and lack of detection of this species during surveys, the potential to encounter the western pond turtle in this segment of the Mokelumne River is low.

Migratory Birds and Raptors

The Migratory Bird Treaty Act is a federal law, but the California Department of Fish and Wildlife has adopted its requirements in total. The Migratory Bird Treaty Act makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in Section 50 of the Code of Federal Regulations Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations. Several species of migratory birds could potentially nest on the ground or within shrubs, trees, and/or structures within the project area.

Suitable nesting habitat for migratory birds occurs within the project area, including structures and vegetation. Migratory birds or raptors may try to nest in appropriate habitat between February 1 and September 30. Swallow nests were seen on the soffits of the concrete overhangs of the Mokelumne River Bridge within the project area. The potential to encounter nesting migratory birds between February 1 and September 30 within the project area is high.

Bats—Structures-Roosting Species

Several species of special-status and non-special-status bats have the potential to roost in the project area. State laws protect bats and their occupied roosts from harassment and destruction. Several species of bats are known to use bridges and other human-made structures as daytime or nighttime roosts. The Natural Environment Study – Minimal Impacts prepared for this project contains further information regarding species of structure-roosting bats that may occur in the project vicinity.

The Mokelumne River Bridge was inspected to determine if the structures provide roosting features for structure-roosting bats. No bats were seen day-roosting at the Mokelumne River Bridge, and no signs of day-roosting bats were found. The bridge lacks features for day- or maternity-roosts, so the potential to encounter bats roosting on or within the bridge structure during the daytime is very low. However, the bridge structure is suitable for night-roosting bats, and the potential to encounter bats roosting on or within the bridge structure during nighttime is high.

Bats—Tree-Roosting Species

Several species of bats require trees as daytime or nighttime roosts. Tree-roosting bats may be found roosting in cavities, under exfoliating bark, and among foliage, and may live in tree foliage or hollows year-round. The Natural

Environment Study – Minimal Impacts prepared for the project contains more information regarding species of tree-roosting bats that may occur in the project vicinity.

The project area consists of suitable habitat for tree-roosting bats, but no bats were found day-roosting in mature trees, and no signs of day-roosting bats were found during surveys conducted for this project. The potential to encounter bats day-roosting or maternity-roosting in mature trees within the project area is moderate.

Environmental Consequences

Foothill Yellow-Legged Frog and Western Pond Turtle

Project construction activities are expected to occur below the top of the bank but above the ordinary high-water mark of the Mokelumne River. This area is considered suitable upland habitat for the foothill yellow-legged frog and western pond turtle. Project construction activities will temporarily disturb the streambank below the top of bank and below the ordinary high-water mark of the Mokelumne River due to temporary construction access and placement and removal of temporary fills described above.

Migratory Birds and Raptors

Swallow nests were seen on the soffits of the concrete overhangs of the Mokelumne River Bridge. Swallows could nest in these areas between February 1 and September 30. The project will remove the cantilevered concrete deck overhangs, which may conflict with nesting for these species.

The project area contains suitable nesting habitat for migratory birds and raptors, including trees, shrubs, and ground. Migratory birds and raptors could nest in the habitat between February 1 and September 30. The project will have temporary construction access and slope modification, which may conflict with nesting for these species.

Bats—Structure- and Tree-Roosting Bats

The concrete bridge piers and deck soffits are suitable only for nighttime structure roosting. No mature trees capable of supporting day-roosting bats occur within any areas proposed for temporary construction access or within temporary construction staging or storage areas. No mature trees will be removed for temporary access or staging. However, mature trees that occur above the top of the bank of the river will likely be removed to change the highway embankment slopes near the southwestern abutment.

Standard Measures

The following standard measures have been added to this project:

- BIO-1: Restore and Revegetate Temporarily Disturbed Areas Onsite

- WQ-3: Containment Measures/Construction Site Best Management Practices

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be incorporated into the project:

- BIO-2: Environmentally Sensitive Area Designation
- BIO-3: Designated Biologist
- BIO-4: Limited Operation Period – Stream Zone Construction Activities
- BIO-5: Worker Environmental Awareness Training for Construction Personnel
- BIO-10: Foothill Yellow-Legged Frog and Western Pond Turtle Pre-Construction Surveys: A qualified designated biologist will conduct pre-construction surveys for the foothill yellow-legged frog and western pond turtle no more than 24 hours before any construction activities start below the top of the bank of the Mokelumne River. The qualified biologist will conduct the pre-construction surveys using California Department of Fish and Wildlife-approved survey protocols.

  These surveys will consist of walking the project limits and accessible areas within at least 50 feet of the project limits. The biologist(s) will investigate all potential foothill yellow-legged frog and western pond turtle cover sites. This includes a thorough investigation of mammal burrows, appropriately sized soil cracks, loose rocks, and debris. Native vertebrates found in the cover sites will be documented and, if appropriate, relocated to an adequate cover site in the action area vicinity. The entrances and other refuge features within the project limits will be collapsed or removed following investigation and clearance.
- BIO-11: Foothill Yellow-Legged Frog and Western Pond Turtle Construction Monitoring: A qualified designated biologist will be present during all construction-related activities that may affect the foothill yellow-legged frog, western pond turtle, or their habitat. The qualified designated biologist will have the authority to stop work through coordination with the Caltrans Resident Engineer or onsite project manager if a foothill yellow-legged frog or western pond turtle is seen in the project footprint. The Caltrans Resident Engineer or onsite project manager will ensure construction activities remain suspended in any area where the qualified designated biologist has determined that take of the foothill yellow-legged frog or western pond turtle could potentially occur. Work will resume once the species leaves the site on its own, or once it is determined that construction activities are not harassing or putting the species in danger. The California Department of Fish and Wildlife will be contacted within 24 hours if a foothill yellow-legged frog or western pond turtle is detected during construction stage surveys.

- BIO-12: Daily Limited Operation Period – Daytime Construction: Construction activities will be limited to daytime hours between within one-half hour of sunrise and within one-half hour of sunset during each construction day. Daytime work will avoid or minimize adverse effects on potential bat night-roost sites. Daytime work will avoid using artificial lighting that may have adverse effects on nocturnal wildlife, including birds, insects, turtles, fishes, amphibians, bats, and other species. Special Provisions under Section 10-1.03 of the Caltrans 2018 Standard Specifications (Time Constraints) will be used to specify any time constraints for specific construction activities.
- BIO-17: Migratory Birds and Raptors – Construction Monitoring: If construction or other project-related activities that may potentially cause nest destruction, nest abandonment, or forced fledging of migratory birds are necessary, a qualified designated biologist will be required to monitor the nest site. This is to ensure that protective radii and any exclusionary devices are in good working condition.

Chapter 3 CEQA Evaluation

3.1 Determining Significance under CEQA

The proposed project is a project by the California Department of Transportation (Caltrans) and is subject to state environmental review requirements. Project documentation, therefore, has been prepared in compliance with the California Environmental Quality Act (known as CEQA).

One of the main differences between CEQA and the National Environmental Policy Act (known as NEPA) is the way CEQA requires Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Each and every significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an Environmental Impact Report. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant with Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 to provide you with the rationale for significance determinations; for a more detailed discussion of the nature and

extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

3.2.1 Aesthetics

CEQA Significance Determinations for Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance associated with the project. The improvements will not constitute a visual impact in the area.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance associated with the project. The improvements will not constitute a visual impact in the area.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance associated with the project. The improvements will not constitute a visual impact in the area.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. There is no lighting on the current structure, and the project will not add a source of light or glare.

3.2.2 Agriculture and Forest Resources

CEQA Significance Determinations for Agriculture and Forest Resources

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

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?

No Impact—There is no farmland near the project. (Amador County General Plan Land Use Map, 2007; Calaveras County General Plan Land Use Designations Map)

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact—There is no farmland near the project. (Amador County General Plan Land Use Map, 2007; Calaveras County General Plan Land Use Designations Map)

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))?

No Impact—There is no identified forest land near the project. (Amador County General Plan Land Use Map, 2007; Calaveras County General Plan Land Use Designations Map)

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact—There is no identified forest land near the project. (Amador County General Plan Land Use Map, 2007; Calaveras County General Plan Land Use Designations Map)

e) Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of farmland to non-agricultural use, or conversion of forest land to non-forest use?

No Impact—There is no identified forest or farmland near the project. Also, the project will not acquire land or change the zoning or use of any land in the vicinity. (Amador County General Plan Land Use Map, 2007; Calaveras County General Plan Land Use Designations Map, Caltrans Project Initiation Document, April 2017)

3.2.3 Air Quality

CEQA Significance Determinations for Air Quality

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

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact—The project site is in the Mountain Counties Air Basin, which is in non-attainment for ozone. Ozone is considered a regional pollutant, so project-level transportation conformity does not apply. The two counties are in the attainment of all other federal ambient air standards. (Air, Noise, and Water Conformity Studies Report, August 2019)

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

No Impact—The project site is in the Mountain Counties Air Basin, which is in non-attainment for ozone. Ozone is considered a regional pollutant, so project-level transportation conformity does not apply. The two counties are in the attainment of all other federal ambient air standards. (Air, Noise, and Water Conformity Studies Report, August 2019)

c) Expose sensitive receptors to substantial pollutant concentrations?

No Impact—The project site is in the Mountain Counties Air Basin, which is in non-attainment for ozone. Ozone is considered a regional pollutant, so project-level transportation conformity does not apply. The two counties are in the attainment of all other federal ambient air standards. During construction,

the project will generate air pollutants, the largest portion of which would consist of windblown dust from clearing and grubbing, demolition, debris hauling, and other similar construction activities. The implementation of standard measures AQ-1 and AQ-2 (described in Chapter 1) are required in every construction contract and should effectively reduce and control emission impacts during construction. (Air, Noise, and Water Conformity Studies Report, August 2019)

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact—During construction, the project will generate air pollutants, the largest portion of which would consist of windblown dust from clearing and grubbing, demolition, debris hauling, and other similar construction activities. The implementation of standard measures AQ-1 and AQ-2 (described in Chapter 1) are required in every construction contract and should effectively reduce and control emission impacts during construction. (Air, Noise, and Water Conformity Studies Report, August 2019)

3.2.4 Biological Resources

CEQA Significance Determinations for Biological Resources

Would the project:

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

No Impact—The project will upgrade an existing bridge. There will be no work in surface waters; almost all work will be conducted from catwalks cantilevered off the existing structure or supported by person-lifts situated on temporary work platforms on the bank of the Mokelumne River. There will be no “take” of any sensitive species and no change to habitat aside from minor, short-term construction impacts. Standard measures WQ-3, BIO-13 through BIO-18 and measures BIO-2 through BIO-5, BIO-10 through BIO-12, and BIO-17 (as described in Chapter 2) will be implemented. (Natural Environment Study – Minimal Impacts, August 2019)

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

No Impact—The project will upgrade an existing bridge. There will be no work in surface waters; almost all work will be conducted from catwalks cantilevered off the existing structure or supported by person-lifts situated on

temporary work platforms on the bank of the Mokelumne River. There will be no “take” of any sensitive species and no change to habitat aside from minor, short-term construction impacts. Standard measures WQ-2, WQ-3, BIO-13 through BIO-18 and measures BIO-2 through BIO-5, BIO-10 through BIO-12, and BIO-17 (as described in Chapter 2) will be implemented. (Natural Environment Study – Minimal Impacts, August 2019)

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

No Impact—No jurisdictional wetlands were identified during biological surveys. (Natural Environment Study – Minimal Impacts, August 2019)

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact—The project will upgrade an existing bridge. There will be no work in surface waters; almost all work will be conducted from catwalks cantilevered off the existing structure or supported by person-lifts situated on temporary work platforms on the bank of the Mokelumne River. There will be no “take” of any sensitive species and no change to habitat aside from minor, short-term construction impacts. Standard measures WQ-3, BIO-13 through BIO-18 and measures BIO-2 through BIO-5, BIO-10 through BIO-12, and BIO-17 (as described in Chapter 2) will be implemented. (Natural Environment Study – Minimal Impacts, August 2019)

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact—No such policies or ordinances are in place in the study area. (Natural Environment Study – Minimal Impacts, August 2019)

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact—No such plans are in place in the study area. (Natural Environment Study – Minimal Impacts, August 2019)

3.2.5 Cultural Resources

CEQA Significance Determinations for Cultural Resources

Would the project:

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

Less Than Significant Impact—Field studies by cultural staff and resulting reports propose a Finding of No Adverse Effect Without Standard Conditions. Implementation of standard measures CR-1 through CR-2 and measures CR-3 through CR-5 (as described in Chapter 2) will prevent any potential impacts to historical resources. (Finding of Effect, September 2019, pending State Historic Preservation Officer concurrence)

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

Less Than Significant Impact—Field studies by cultural staff and resulting reports propose a Finding of No Adverse Effect Without Standard Conditions. Implementation of standard measures CR-1 through CR-2 and measures CR-3 through CR-5 (as described in Chapter 2) will prevent any potential impacts to archaeological resources. (Finding of Effect, September 2019, pending State Historic Preservation Officer concurrence)

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

No Impact—The project includes only very minor ground disturbance and no excavation. Standard measure CR-2 (as described in Chapter 2) would be implemented.

3.2.6 Energy

CEQA Significance Determinations for Energy

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact—The project will upgrade an existing bridge. Caltrans' Standard Provisions concerning energy conservation are part of every construction contract.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact—The project will upgrade an existing bridge. Caltrans' Standard Provisions concerning energy conservation are part of every construction contract.

3.2.7 Geology and Soils

CEQA Significance Determinations for Geology and Soils

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

No Impact—The project will upgrade an existing bridge. According to the September 2019 version of the Alquist-Priolo Earthquake Fault Zoning Map, the project site is not at risk for earth movement.

ii) Strong seismic ground shaking?

No Impact—The project will upgrade an existing bridge. According to the September 2019 version of the Alquist-Priolo Earthquake Fault Zoning Map, the project site is not at risk for earth movement.

iii) Seismic-related ground failure, including liquefaction?

No Impact—The project will upgrade an existing bridge. According to the September 2019 version of the Alquist-Priolo Earthquake Fault Zoning Map, the project site is not at risk for earth movement.

iv) Landslides?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance. The project site is not in an area prone to landslides.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance.

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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted

from catwalks and person-lifts; there will be minimal ground disturbance. According to the September 2019 version of the Alquist-Priolo Earthquake Fault Zoning Map, the project site is not at risk for earth movement.

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?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance.

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

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work would be conducted from catwalks and person-lifts; there will be minimal ground disturbance.

3.2.8 Greenhouse Gas Emissions

CEQA Significance Determinations for Greenhouse Gas Emissions

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact—While the project will result in some greenhouse gas emissions during construction, the project is not expected to cause an increase in operational greenhouse gas emissions. Standard measures AQ-1 and AQ-2 (as described in Chapter 1), and measures GHG-1 through GHG-5 (as described in Chapter 3) will be implemented.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact—The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions.

3.2.9 Hazards and Hazardous Materials

CEQA Significance Determinations for Hazards and Hazardous Materials

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Bridges are known to be built with asbestos-containing materials, including concrete, bearing pads, shims, and mastic material, so a project-specific survey would be conducted before construction to ensure that all asbestos-containing materials are identified for safe and appropriate handling during removal and disposal. Painted surfaces on this bridge, including bridge railings, may have lead-based paints, so a project-specific survey for lead-based paints will be conducted before construction to ensure that all lead-containing materials are identified for safe and appropriate handling during removal and disposal. Implementation of standard measures HAZ-1 through HAZ-3 (as described in Chapter 1) will be used to prevent impacts from hazardous materials. (Initial Site Assessment, August 2019)

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Construction materials are not expected to include hazardous substances. Implementation of standard measures HAZ-1 through HAZ-3 (as described in Chapter 1) will prevent impacts from hazardous materials.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Construction materials are not expected to include hazardous substances. Also, the project site sits in a mostly rural area with no school nearby.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. The site does not appear on a list of hazardous materials sites. (Initial Site Assessment, August 2019)

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?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. The site is not within 2 miles of a public airport.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact—While State Route 49 is regionally important, it is not the only route for entering or exiting Calaveras County or Amador County. It does not appear on the emergency planning document for either county as a critical or mandatory evacuation route. During construction activities, crews will work on one side of the bridge at a time, reducing traffic to one lane; traffic control will be maintained through the use of a temporary traffic signal. Caltrans Traffic Safety staff have been and will continue to be in contact with nearby cities and agencies, so they are informed about traffic interruptions or slowdowns and progress of work. Should an emergency requiring mass evacuations occur within the vicinity of the bridge, the contractor and the Caltrans Resident Engineer will monitor county emergency services and follow their guidance.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact—A review of the California Department of Forestry and Fire Protection Fire Hazard Severity Zone maps for Calaveras County and Amador County found that the project area is in a high-risk area for wildfires. The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. With the implementation of Construction Site Best Management Practices, construction activities will not increase the risk of wildfires.

3.2.10 Hydrology and Water Quality

CEQA Significance Determinations for Hydrology and Water Quality

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

No Impact—The project will have no long-term effect on water quality or stormwater runoff. There may be temporary effects on water quality during construction activities. However, the implementation of standard measures

WQ-1 through WQ-8 (as described in Chapters 1 and 2) will prevent impacts on water quality. (Water Quality Report, August 2019)

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact—The project will have no long-term effect on water quality or groundwater supplies. There may be temporary effects on water quality during construction activities. However, the implementation of standard measures WQ-1 through WQ-8 (as described in Chapters 1 and 2) will prevent impacts on water quality. (Water Quality Report, August 2019)

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 onsite or offsite;

No Impact—The project includes only minor ground disturbance and no excavation. Currently, there is no evidence of erosion or siltation at the site. Implementation of standard measures WQ-2 and WQ-3 (as described in Chapters 1 and 2) will prevent impacts on water quality. (Water Quality Report and Natural Environment Study – Minimal Impacts, August 2019)

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;

No Impact—The project will have no long-term effect on water quality or stormwater runoff. The project is not expected to change existing drainage patterns or volumes. Implementation of standard measures WQ-1 through WQ-8 (as des44otatio in Chapters 1 and 2) will prevent impacts on water quality. (Water Quality Report, August 2019)

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

No Impact—The project will have no long-term effect on water quality or stormwater runoff. The project is not expected to change existing drainage patterns or volumes. Implementation of standard measures WQ-1 through WQ-8 (as described in Chapters 1 and 2) will prevent impacts on water quality. (Water Quality Report, August 2019)

iv) Impede or redirect flood flows?

No Impact—The project will have no long-term effect on water quality or stormwater runoff. The project is not expected to change existing drainage

patterns or volumes. Implementation of standard measures WQ-1 through WQ-8 (as described in Chapters 1 and 2) will prevent impacts on water quality. (Water Quality Report, August 2019)

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

No Impact—The project site is outside a tsunami or seiche risk area. The risk of flood is limited because the river is governed by planned releases from dams above and below the Mokelumne River Bridge. The Pacific Gas and Electric Company controls the releases upstream of the bridge; the East Bay Municipal Utility District controls the releases downstream of the bridge. The East Bay Municipal Utility District measures the volume and velocity of the river flow several times daily. Also, construction materials are not expected to include hazardous substances, and the planned staging areas are well above the elevation of the river. The project is not expected to change existing drainage patterns or volumes. Implementation of standard measures WQ-1 through WQ-8 (as described in Chapters 1 and 2) will prevent impacts on water quality. (Water Quality Report, August 2019)

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact—There is no water quality control plan or groundwater management plan in place for this location. Caltrans has actively consulted with the East Bay Municipal Utility District, including at field visits, to ensure the project plans are consistent with the district's river management goals. (Water Quality Report, August 2019)

3.2.11 Land Use and Planning

CEQA Significance Determinations for Land Use and Planning

Would the project:

a) Physically divide an established community?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work will be conducted from catwalks and person-lifts; there will be minimal ground disturbance. The improvements will not divide a community or cause disruptions.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. Most of the work would be

conducted from catwalks and person-lifts; there will be minimal ground disturbance. The improvements will not conflict with any existing land use policies or goals.

3.2.12 Mineral Resources

CEQA Significance Determinations for Mineral Resources

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact—The project will involve minor ground disturbance and no excavation.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact—The project will involve minor ground disturbance and no excavation.

3.2.13 Noise

CEQA Significance Determinations for Noise

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

No Impact—During project construction, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Implementation of standard measures NOI-1 through NOI-3 (as described in Chapter 2) will prevent noise impacts. (Noise Study, August 2019)

b) Generation of excessive groundborne vibration or groundborne noise levels?

No Impact—During project construction, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Implementation of standard measures NOI-1 through NOI-3 (as described in Chapter 2) will prevent noise impacts. (Noise Study, August 2019)

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?

No Impact—The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. The site is not within 2 miles of a public or private airport.

3.2.14 Population and Housing

CEQA Significance Determinations for Population and Housing

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact—The project will upgrade an existing bridge. It would not increase capacity or encourage growth in the area.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact—All construction activities for the project will take place within an existing state right-of-way. No property will be acquired, and no homes or businesses would be relocated to accommodate the project.

3.2.15 Public Services

CEQA Significance Determinations for Public Services

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

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

No Impact—The project will upgrade an existing bridge. It would not increase capacity, induce growth, or change access to nearby communities. Except for temporary construction impacts on traffic, the project will not affect emergency services. No utility relocations are expected as part of construction activities.

3.2.16 Recreation

CEQA Significance Determinations for Recreation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact—The project will upgrade an existing bridge. It will not increase capacity, induce growth, or change access to nearby communities. Except for temporary construction impacts on traffic, the project will not affect the use of existing recreational facilities within the project area.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact—The project will upgrade an existing bridge. It will not increase capacity, induce growth, or change access to nearby communities. Except for temporary construction impacts on traffic, the project will not affect the use of existing recreational facilities within the project area. Implementation of standard measures PAR-1 through PAR-7 (as described in Chapter 2) will prevent impacts on recreational facilities.

3.2.17 Transportation

CEQA Significance Determinations for Transportation

Would the project:

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact—The project will upgrade an existing bridge. The upgrades will increase pedestrian and bicycle access; they will not conflict with any programs or plans addressing circulation.

b) Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

No Impact—The project will not increase vehicle miles traveled.

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

No Impact—The project will upgrade an existing bridge. The upgrades will increase pedestrian and bicycle access.

d) Result in inadequate emergency access?

No Impact—The project will upgrade an existing bridge. The upgrades will increase pedestrian and bicycle access. The project will not result in inadequate emergency access. Standard measure TRA-1 (as described in Chapter 1) will be implemented.

3.2.18 Tribal Cultural Resources

CEQA Significance Determinations for Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

No Impact—No resources 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), exist within the project area of potential effects.

If any tribal cultural materials are discovered during project excavation and construction, the implementation of standard measures CR-1 and CR-2 (described in Chapter 2) will prevent any potential impacts to tribal cultural resources.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No Impact—No resources, significant or otherwise, were identified by consulted Native American tribes. If any tribal cultural materials are discovered during project excavation and construction, the implementation of

standard measures CR-1 and CR-2 (described in Chapter 2) will prevent any potential impacts to tribal cultural resources.

3.2.19 Utilities and Service Systems

CEQA Significance Determinations for Utilities and Service Systems

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact—Utility relocation or construction is not expected for this project.

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

No Impact—During construction, water will be required for dust control; minimal wastewater will be generated. Wastewater generated by construction workers will be treated offsite.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact—During construction, water will be required for dust control; minimal wastewater will be generated. Wastewater generated by construction workers will be treated offsite.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact—The demolition of existing bridge rails will result in some solid waste, but not in excess of state or local standards. The contractor will be required to comply with Caltrans' Standard Special Provisions concerning lead-based paint and asbestos-containing materials abatement, and a lead compliance plan will be required. (Initial Site Assessment, August 2019)

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact—The project will comply with federal, state, and local management and reduction statutes and regulations related to solid waste where applicable.

3.2.20 Wildfire

CEQA Significance Determinations for Wildfire

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?

Less Than Significant Impact—While State Route 49 is regionally important, it is not the only route for entering or exiting Calaveras County or Amador County. It does not appear in the Emergency Planning document for either county as a critical or mandatory evacuation route. However, during the circulation of the draft environmental document, Caltrans was contacted by Robert Withrow, a division chief for the California Department of Forestry and Fire Protection's Amador-El Dorado Unit. Robert Withrow stated that the California Department of Forestry and Fire Protection is subject to mutual aid agreements that call for units from Amador County to respond to wildfires in Calaveras County, and the reverse, as needed. Robert Withrow stated that it is common for units responding to mutual aid calls to use State Route 49 as their preferred route.

During construction activities, crews will work on one side of the bridge at a time, reducing traffic to one lane. Traffic control will be maintained using flaggers during daytime construction and a temporary, actuated traffic signal during evenings, nights, and weekends. Caltrans Traffic Safety has been and will continue to be in contact with nearby cities and agencies, so they are informed about traffic interruptions or slowdowns and progress of work. Should an emergency requiring mass evacuations or response from the California Department of Forestry and Fire Protection occur within the vicinity of the bridge, the contractor and the Caltrans Resident Engineer will monitor county emergency services and follow their guidance.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact—A review of the California Department of Forestry and Fire Protection Fire Hazard Severity Zone maps for Calaveras County and Amador County shows that the project area is in a high-risk area for wildfires. The project will upgrade an existing bridge with new bridge rails and widen the existing cantilever structure. With the implementation of Construction Site Best Management Practices, construction activities will not increase the risk of wildfires.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities)

that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact—The project will not require the installation or maintenance of associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines, or other utilities.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact—The project will have no long-term effect on water runoff. The project is not expected to change existing drainage patterns or volumes. The project has been designed to include Best Management Practices and Caltrans' Standard Provisions for runoff. (Water Quality Report, August 2019)

3.2.21 Mandatory Findings of Significance

CEQA Significance Determinations for Mandatory Findings of Significance

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

No Impact—The project will upgrade an existing bridge. There will be no work within surface waters; almost all work will be conducted from catwalks cantilevered off the existing structure or supported by person-lifts situated on temporary work platforms on the bank of the Mokelumne River. There would be no "take" of any sensitive species and no change to habitat aside from minor, short-term construction impacts. (Natural Environment Study – Minimal Impacts, August 2019)

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

No Impact—As discussed in Section 3.2, all environmental impacts that could occur as a result of the project will be less than significant with the inclusion of the standard measures recommended throughout this document in the project design. When viewed in conjunction with other closely related

past, present, or reasonably foreseeable future projects, the development of this project will not cumulatively contribute to impacts.

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

No Impact—The project will not generate environmental impacts that will directly or indirectly cause substantial adverse effects on human beings. Where potential impacts occur, standard project measures and avoidance and minimization measures will be implemented to ensure direct and indirect impacts on human beings do not occur.

3.3 Climate Change

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

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity, including carbon dioxide, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, and various hydrofluorocarbons. Carbon dioxide is the most abundant greenhouse gas; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated carbon dioxide.

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

3.3.1 Regulatory Setting

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

Federal

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

The National Environmental Policy Act (known as NEPA) (42 U.S. Code Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

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

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

Energy Policy Act of 2005, 109th Congress H.R.6 (2005-2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. Environmental Protection Agency in conjunction with the National Highway Traffic Safety Administration is responsible for setting greenhouse gas emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in

the U.S. [The U.S. Environmental Protection Agency's authority to regulate greenhouse gas emissions stems from the U.S. Supreme Court decision in Massachusetts v. Environmental Protection Agency (2007). The Supreme Court ruled that greenhouse gases meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably expected to endanger public health or welfare. Responding to the court's ruling, the U.S. Environmental Protection Agency finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six greenhouse gases form a threat to public health and welfare. So, it is the Supreme Court's interpretation of the existing act and the Environmental Protection Agency's assessment of the scientific evidence that form the basis for Environmental Protection Agency's regulatory actions]. The current standards require vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. The Environmental Protection Agency and National Highway Traffic Safety Administration are currently considering appropriate mileage and greenhouse gas emissions standards for 2022-2025 light-duty vehicles for future rulemaking.

The National Highway Traffic Safety Administration and Environmental Protection Agency issued a Final Rule for "Phase 2" for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce carbon dioxide emissions by up to 1.1 billion metric tons over the lifetimes of model years 2018-2027 vehicles.

State

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

Executive Order S-3-05 (June 1, 2005): The goal of this Executive Order is to reduce California's greenhouse gas emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and Senate Bill 32 in 2016.

Assembly Bill 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: Assembly Bill 32 codified the 2020 greenhouse gas emissions reduction goals outlined in Executive Order S-3-05, while further mandating that the California Air Resources Board create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires the California Air Resources Board to adopt rules and regulations in an open

public process to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.

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

Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a "Sustainable Communities Strategy" that integrates transportation, land use, and housing policies to plan how it will achieve the emissions target for its region.

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

Executive Order B-16-12 (March 2012) orders State entities under the direction of the governor, including the California Air Resources Board, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

Executive Order B-30-15 (April 2015) establishes an interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs the California Air Resources Board to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalents. [Greenhouse gases differ in how much heat each trap in the atmosphere (global warming potential). Carbon dioxide is the most important greenhouse gas, so amounts of other gases are expressed relative to carbon dioxide, using a metric called "carbon dioxide equivalent." The global warming potential of carbon dioxide is assigned a value of 1, and the global warming potential of other gases is assessed as multiples of carbon dioxide]. Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy,

Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

Senate Bill 32, Chapter 249, 2016, codifies the greenhouse gas reduction targets established in Executive Order B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

Senate Bill 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

Assembly Bill 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

Senate Bill 743**,** Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles traveled, to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

Senate Bill 150**,** Chapter 150, 2017, Regional Transportation Plans: This bill requires the California Air Resources Board to prepare a report that assesses progress made by each metropolitan planning organization in meeting its established regional greenhouse gas emission reduction targets.

Executive Order B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing greenhouse gas emissions.

3.3.2 Environmental Setting

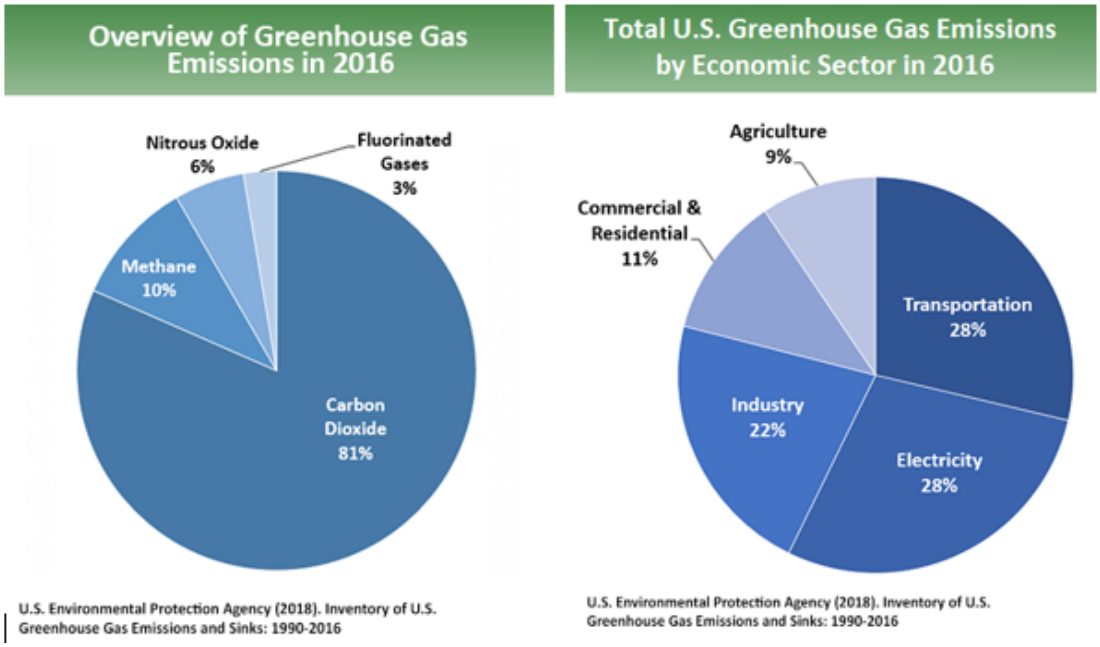
The project is in a mostly rural area, with just a few nearby homes. The Mokelumne River Bridge carries State Route 49 traffic across the Mokelumne River between the city of Jackson in Amador County and the census-designated town of Mokelumne Hill in Calaveras County. Known as the "Golden Chain Highway," State Route 49 is a major north-south route and a popular tourist route; truck traffic accounts for only about 7 percent of total traffic in the project area. (Calaveras Council of Governments 2017: page 32) At the southern end of the bridge, State Route 49 intersects Big Bar Road, which provides access to the Big Bar Boat Launch and Recreation Area.

The Calaveras Council of Governments' Regional Transportation Plan (2017) and the Amador County Regional Transportation Plan (2015) guide transportation development in the project area. The 2017 Calaveras County Regional Transportation Plan update classifies State Route 49 as a principal arterial. The Amador County General Plan (2016; Figure CM-1), and the Amador County Regional Transportation Plan (2015) classifies State Route 49 at the project location as an arterial. The Draft Environmental Impact Report analysis of the General Plan Circulation Element (2018) classifies State Route 49 as a minor arterial (Figure 4.13-3 in the Draft Environmental Impact Report) and expects to maintain a level of service of C or better in the project area at general plan buildout (beyond 2035). (Figure 4.13-6 in the Draft Environmental Impact Report)

National Greenhouse Gas Inventory

The U.S. Environmental Protection Agency prepares a national greenhouse gas inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of greenhouse gases in the U.S., reporting emissions of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. It also accounts for emissions of carbon dioxide that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store carbon dioxide (carbon sequestration). The 1990-2016 inventory found that of 6,511 million metric tons of carbon dioxide equivalent greenhouse gas emissions in 2016, 81 percent consist of carbon dioxide, 10 percent are methane, and 6 percent are nitrous oxide; the balance consists of fluorinated gases (EPA 2018a). In 2016, greenhouse gas emissions from the transportation sector accounted for nearly 28.5 percent of U.S. greenhouse gas emissions. See Figure 3-1.

Figure 3-1 U.S. 2016 Greenhouse Gas Emissions



State Greenhouse Gas Inventory

The California Air Resources Board collects greenhouse gas emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its greenhouse gas reduction goals.

The 2018 edition of the greenhouse gas emissions inventory found total California emissions of 429 million metric tons of carbon dioxide equivalent for 2016, with the transportation sector responsible for 41 percent of total greenhouse gases. It also found that overall statewide greenhouse gas emissions have declined from 2000 to 2016 despite growth in population and state economic output. See Figures 3-2 and 3-3.

Figure 3-2 California 2016 Greenhouse Gas Emissions

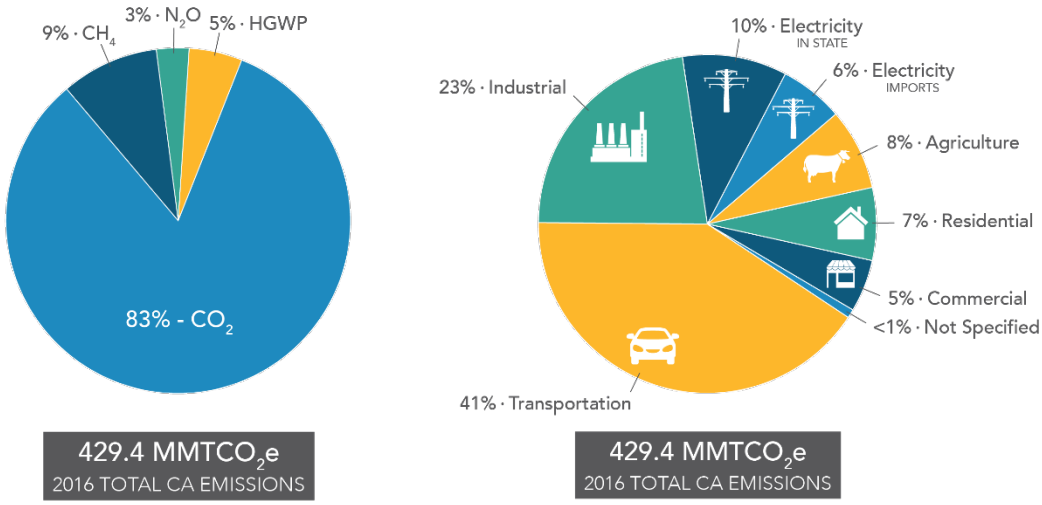
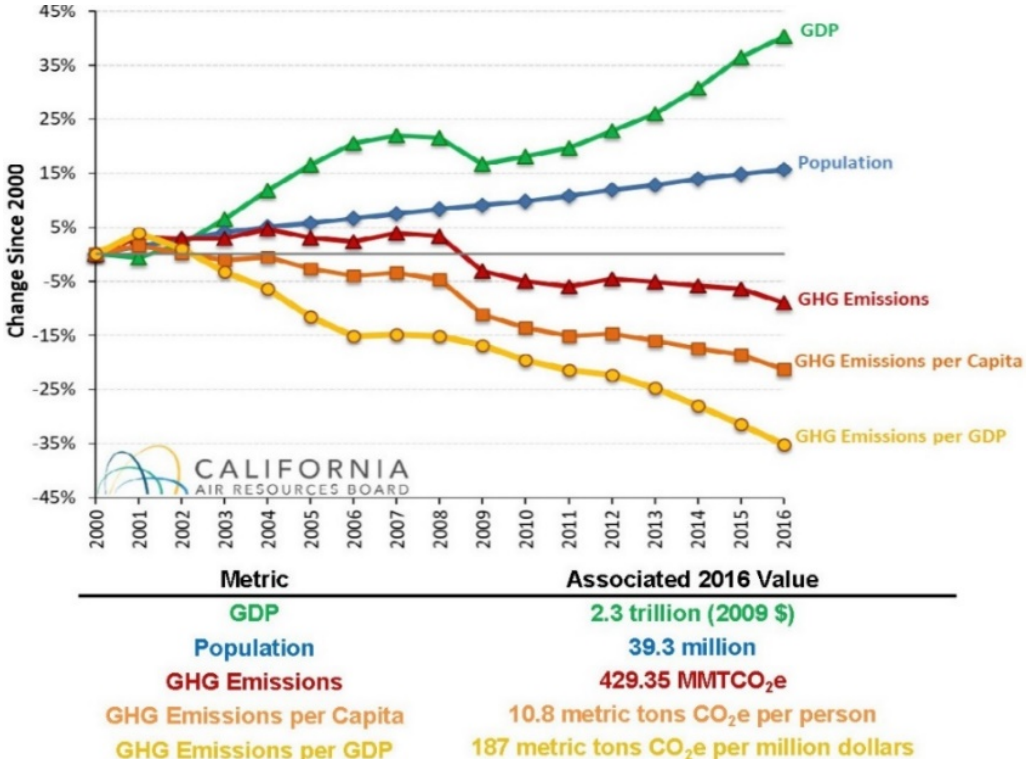


Figure 3-3 Change in California Gross Domestic Product, Population, and Greenhouse Gas Emissions since 2000



Metric	Associated 2016 Value
GDP	2.3 trillion (2009 $)
Population	39.3 million
GHG Emissions	429.35 $MMTCO_2e$
GHG Emissions per Capita	10.8 metric tons CO_2e per person
GHG Emissions per GDP	187 metric tons CO_2e per million dollars

Assembly Bill 32 required the California Air Resources Board to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing greenhouse gas emissions to 1990 levels by 2020, and to update it every 5 years. The California Air Resources Board adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030

target established in Executive Order B-30-15 and Senate Bill 32. The Assembly Bill 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce greenhouse gas emissions.

Regional Plans

The California Air Resources Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Regional Transportation Plan/Sustainable Communities Strategy to plan future projects that will cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels. Calaveras County and Amador Country are not Metropolitan Planning Organizations and therefore do not have regional targets established and are not required to produce a Sustainable Communities Strategy under Senate Bill 375. However, the Calaveras County Regional Transportation Plan and the updated General Plan (2019) Transportation and Circulation element and Conservation and Open Space element contain goals and policies related to greenhouse gases in the project area. The Amador County General Plan (2016; Figure CM-1) and the Amador County Regional Transportation Plan (2015) also contain goals and policies related to reducing greenhouse gases. To date, neither county has a climate action plan. (California Air Resources Board 2019)

3.3.3 Project Analysis

Greenhouse gas emissions from transportation projects can be divided into those produced during operation of the State Highway System and those produced during construction. The main greenhouse gases produced by the transportation sector are carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. Carbon dioxide emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of methane and nitrous oxide are emitted during fuel combustion. In addition, a small amount of hydrofluorocarbon emissions is included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Public Resources Code, Section 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation *v.* San Diego Association of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." (CEQA Guidelines Sections 15064(h)(1) and 15130)

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every

individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The purpose of the project is to upgrade the bridge rails on the Mokelumne River Bridge to meet current crash safety standards, and to enhance the mobility of pedestrian and bicycle traffic. The project will not increase roadway capacity or service capabilities that will induce growth or increase capacity. Because the project will not increase the number of travel lanes on State Route 49, project implementation will not increase vehicle miles traveled in the project area. While some greenhouse gas emissions during the construction period will be unavoidable, no increase in operational greenhouse gas emissions is expected.

Construction Emissions

Construction greenhouse gas emissions will result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence will, where possible, be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the greenhouse gas emissions produced during construction would be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Carbon dioxide emissions generated from construction equipment (which are used to gauge impacts to climate change) were estimated using the Caltrans Construction Emissions Tool. The estimated carbon dioxide construction emissions are 197 U.S. tons over a two-month work period.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all California Air Resources Board emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. The project will also implement Caltrans' standardized measures (such as Construction Site Best Management Practices) that apply to most or all Caltrans projects. Certain common regulations—equipment idling restrictions and implementation of a traffic control plan—that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

CEQA Conclusion

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

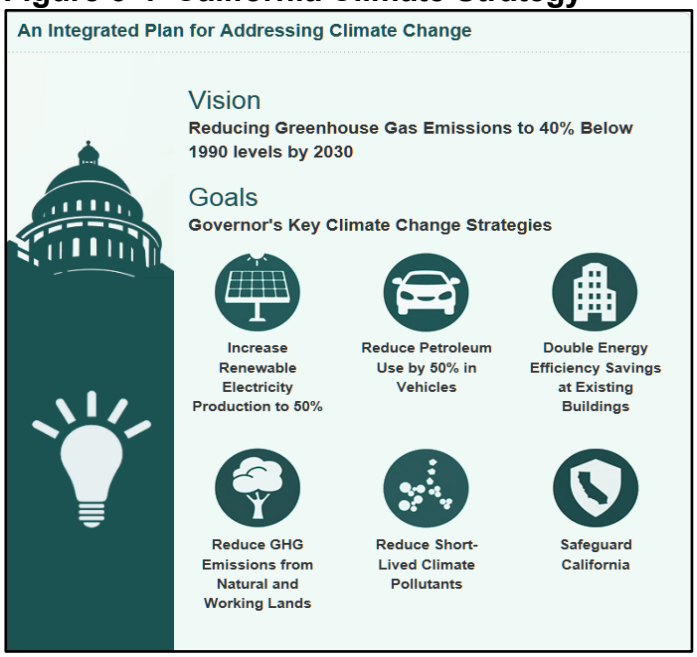
Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

3.3.4 Greenhouse Gas Reduction Strategies

Statewide Efforts

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

Figure 3-4 California Climate Strategy



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

In addition, Senate Bill 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forest lands, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the governor's Climate Action Team as the California Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in Assembly Bill 32. Executive Order B-30-15, issued in April 2015, and Senate Bill 32 (2016) set an interim target to cut greenhouse gas emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

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

Senate Bill 391 (Liu 2009) requires the California Transportation Plan to meet California's climate change goals under Assembly Bill 32. Accordingly, the California Transportation Plan 2040 identifies the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs. While Metropolitan Planning Organizations have primary responsibility for identifying land use patterns to help reduce greenhouse gas emissions, the California

Transportation Plan 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

Caltrans Strategic Management Plan

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

- Increasing percentage of non-auto mode share
- Reducing vehicle miles traveled
- Reducing Caltrans' internal operational (buildings, facilities, and fuel greenhouse gas emissions

Funding and Technical Assistance Programs

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

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Activities to Address Climate Change* (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce greenhouse gas emissions resulting from agency operations.

Project-Level Greenhouse Gas Reduction Strategies

The following measures will also be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project. Caltrans staff will enhance the environmental training provided for contractor staff by adding a module on greenhouse gas reduction strategies, including limiting equipment idling time as much as possible.

The contractor will be required to:

- Reduce construction waste and maximize the use of recycled materials wherever possible.
- Incorporate measures to reduce the use of drinking water.

- Seek to operate construction equipment with improved fuel efficiency by:
  - Properly tuning and maintaining equipment
  - Limiting equipment idling time
  - Using the right-size equipment for the job
- Caltrans Standard Specification 14-9.02, Air Pollution Control requires contractors to comply with all air-pollution control rules, regulations, ordinances, and statutes. Measures that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

3.3.5 Adaptation

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

Federal Efforts

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

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

The U.S. Department of Transportation Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of Department of Transportation in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services, and operations remain effective in current and future climate conditions."

Federal Highway Administration Order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events,* December 15, 2014) established Federal Highway Administration policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems.

The Federal Highway Administration has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels.

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California's Fourth Climate Change Assessment* (2018) is the state's latest effort to "translate the state of climate science into useful information for action" in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

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

capacity to adapt." Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

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

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

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

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

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

can use infrastructure planning, design, and implementation processes to address the observed and expected climate change impacts.

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

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

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

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

Project Adaptation Analysis

Sea Level Rise

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

Floodplains Analysis

Most climate scientists predict increased frequency and intensity of rain events related to global climate change, although how frequent and how intense such storms are likely to be is unclear. The bridge spans the Mokelumne River. The project location is partially within Zone A, which is subject to a 1 percent annual chance for flood. The project's location hydraulic study (Caltrans 2019) notes that annual precipitation averages about 35 inches in Amador County overall, but 20 inches in the western part of the county where the project is located. The draft District 10 Caltrans Climate Change Vulnerability Assessment found that as the climate changes, heavy precipitation events may change and become more frequent over time.

The assessment projects a less than 5 percent increase in 100-year storm precipitation depth in the western portion of the district through 2085, including at the project area.

While the bridge itself is in the floodplain, the project will involve work on the bridge deck, which is above the floodplain. Most stormwater runoff sheet flows off the roadway into side storage ditches or vacant land. The project will not interfere with or change drainage patterns. Also, the river is governed by planned releases from dams above and below the Mokelumne River Bridge, which limits the risk of flooding. (Section 3.2.10, Hydrology and Water Quality) Accordingly, the project changes to the bridge rails and deck will be protected from potential impacts of future higher precipitation that could occur under climate change conditions during the project's design life.

Wildfire

California Department of Forestry and Fire Protection Fire Hazard Severity Zone maps for Calaveras County and Amador County show that the project area is in a high-risk area for wildfires. The implementation of Construction Site Best Management Practices will avoid or minimize wildfire risk during construction.

Chapter 4 Comments and Coordination

Consultation and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public meetings, public notices, and project development team meetings. This chapter discusses the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

Cultural Resources Coordination

Native American Coordination

Interested Native American representatives included individuals and groups identified by the Native American Heritage Commission and local government and county historical societies.

- A request for a search of the Sacred Lands Inventory files was sent to the Native American Heritage Commission, and a response was received on July 29, 2019. The commission responded "negative" to the request for the search and provided a list of potential Native American contacts that Caltrans could consult about the project.
- On July 30, 2019, initial consultation letters were sent to eight representatives with tribal affiliation. The following were contacted: Buena Vista Rancheria of Me-Wuk Indians of California, Calaveras Band of Mi-Wuk Indians, Ione Band of Miwok Indians, Jackson Rancheria Band of Miwuk Indians, and United Auburn Indian Community of the Auburn Rancheria. As of May 11, 2020, no responses have been received from the Buena Vista Rancheria of Me-Wuk Indians of California and the Ione Band of Miwok Indians; however, consultation is still ongoing. A field visit was conducted on February 5, 2020, with the Jackson Rancheria Band of Miwuk Indians; additional documents will be provided to the Calaveras Band of Mi-Wuk Indians and the United Auburn Indian Community of the Auburn Rancheria.

In conjunction with the Native American consultation, letter correspondence was also sent to local government and county historical societies in August 2019; no responses have been received.

State Cultural Studies Office Review

A letter of Finding of No Adverse Effect with Standard Conditions was sent to the State Cultural Studies Office on November 4, 2019 for review and was accepted on November 15, 2019.

Biological Resources Coordination

Coordination is not required for biological resources because the project would have no effect on any of the following: California endangered species, special-status plants and animal species, and critical habitat. The following consultation would not be required:

- California Endangered Species Act consultation under Section 2080.1 or 2081 of the California Fish and Game Code would not be required.

Wild and Scenic River

- The California Natural Resources Agency has jurisdiction over the segment of the Mokelumne River within the project area. An initial consultation letter was sent to Heather Baugh, the assistant general counsel for the agency, on March 28, 2019. A phone conference was held with Heather Baugh on April 22, 2019, to discuss the project's potential to cause impacts to the river. Heather Baugh said the project would not impact the river; she confirmed her statement via email on June 19, 2019.
- The Bureau of Land Management has jurisdiction over Big Bar Recreation Area. An initial consultation letter was mailed to the Bureau of Land Management Mother Lode Field Office on March 28, 2019. Caltrans' environmental team did not receive a response from the Bureau of Land Management, and a follow-up email was sent to the Mother Lode Field Office on June 19, 2019. Because funding for this project was amended in October 2019 to remove federal funds, the Bureau of Land Management was notified that its concurrence in 4(f) determination is no longer needed, following the circulation of the draft environmental document.

Wildfire

On Monday, January 13, 2020, Robert Withrow, a division chief for the California Department of Forestry and Fire Protection's Amador-El Dorado Unit, contacted our office expressing concern about access for emergency vehicles through the project area during potential wildfires. We responded with the following email:

Hi Bob: Thanks for the call this afternoon. Attached is the draft environmental document for the proposed project on the Mokelumne River Bridge at Big Bar. Please feel free to forward any questions or concerns you may have regarding the project. I understand that, contrary to the research I did before releasing the document, State Route 49 is a primary route for emergency

response vehicles, in particular for California Department of Forestry and Fire Protection's equipment responding to rural wildfires.

Our current schedule calls for the construction contract to be awarded in late fall 2022, which should have our contractor beginning construction in early spring 2023. You expressed particular concern at the one-way traffic control signal light and wait time for emergency vehicles, especially during mid- to late-summer. I am passing along your concerns to our project and design managers, and I hope that we can add you to the distribution list for our next project development team meeting and you can phone in to stay abreast of our plans to maintain emergency access through the work area.

A follow-up letter Robert Withrow expected to send to Lupe Jimenez, who was Acting Senior Environmental Planner at the time, has not been received. However, Robert Withrow attended a portion of the focused meeting held via WebEx—a digital meeting platform—on May 1, 2020. Upon leaving the meeting, Robert Withrow emailed Sinarath Pheng, a project manager with Caltrans, with his concerns. Robert Withrow's email and Caltrans' response is included in Appendix B. The project manager has confirmed that Robert Withrow will be notified of upcoming project development meetings.

Recreational and Emergency Access, Traffic, and Informal Detours

- No members of the public submitted questions or letters of concern about the project or requested a public meeting during the circulation of the draft environmental document. However, two community nonprofit organizations provided letters expressing concerns, asked questions, and requested a public meeting. For several reasons, the project development team determined that a focused meeting with interested parties held via WebEx offered the best combination of accessibility, responsiveness, and social distancing for all participants.

  The letters of the two community nonprofit organizations, as well as others, are reproduced in the Comments and Responses section of this document. The focused meeting was held on May 1, 2020. See Figure 4-1 for the list of attendees at the meeting.

Figure 4-1 The Attendees at the Focused Meeting

Joined	Caltrans Staff	
X	Sinara Pheng	Project Manager
X	Kal Daher	Design Manager
X	Madhwesh Raghavendrachar	Structure Design Manager
X	Tham Bui	Structure Design Engineer
X	Jaycee Azevedo	Environmental Manager
X	Janet Bailey	Environmental Generalist
X	Divine Yang	Environmental Generalist
X	Michaela Shelton	Environmental Generalist
X	Jason Meigs	Biologist
X	Alfred Blum	Construction Manager
X	Stephen Pozzo	Structure Construction Manager
	Wes Bingham	Maintenance Superintendent
X	Quan Trinh	Traffic Management
X	Vu Nguyen	Traffic Operations
X	Warren Alford	Public Information Officer

Joined	External Agencies	
X	Shane Dante	Foothill Conservancy
X	Katherine Evatt	Foothill Conservancy, Board President
X	Pete Bell	Foothill Conservancy
	Bob Leitzell	Foothill Conservancy, Board member
X	Robert Withrow	CalFire
X	Theresa Simsiman	American Whitewater
X	John Gedney	ACTC
	Mark Hopkins	Amador County Public Works
	Joshua Pack	Calaveras County Public Works
X	Jennifer Herndon	Calaveras County Public Works
	Jennifer Ellis	Calaveras County Public Works
	Amber Collins	CCOG

Sinarath Pheng conducted the meeting, which started at 10 a.m. Some external participants experienced challenges logging into the WebEx meeting and phoned in.

Sinarath Pheng asked that comments be submitted by agency, and started the format with the Foothill Conservancy, which was represented by Katherine Evatt, Pete Bell, and Shane Dante. Members of the Foothill Conservancy were interested in Caltrans' responses to what they submitted in their comment letter. Caltrans included information from the meeting in the responses to their comments.

American Whitewater, represented by Theresa Simsiman, was called on next, but Simsiman had left the meeting. Theresa Simsiman, was, however, an active participant in the comments and discussion of the Foothill Conservancy's concerns. The same was true for the California Department of Forestry and Fire Protection, which was represented by Robert Withrow. Robert Withrow followed up with an email to Sinarath Pheng, which is included in the comment letters. John Gedney, who represented the Amador County Transportation Commission, said his main concern was traffic. However, Caltrans addressed his concerns during responses to earlier commenters. Calaveras County did not respond to its opportunity to comment.

Those who attended the meeting agreed that a subsequent workshop was needed. Caltrans will conduct a workshop in six to eight months. The workshop will present an opportunity to revisit concerns raised at the last meeting, which was adjourned at 12:30 p.m.

California Public Records Act Request and Response

On April 7, 2020, the Caltrans District 10 Public Information Officer received notification of a California Public Records Act request filed by the Foothill Conservancy (R006072-040720) for documents related to the project. The request specified: All environmental documents, or more specifically, all

comment letters or correspondences from the public regarding project 10-0X752 Amador County 49 Mokelumne River Bridge Upgrade.

On April 7, 2020, Caltrans responded to the request with a copy of the draft environmental document. On April 13, 2020, Caltrans responded with copies of all comment letters received during the circulation of the draft environmental document.

On April 21, 2020, the Caltrans District 10 Public Information Office received notification of an additional request for documents under the same request number. The request stated the following: “I’d like to request all emails and other written communication between Caltrans and any outside entities regarding project 10-CAL/AMA-49-30.9-0.0 10-0X752/10-1700-0004, Mokelumne River Bridge Upgrade On State Route 49 between Jackson and Mokelumne Hill.

On May 11, 2020, Caltrans responded with a collection of all emails between Caltrans and outside agencies, and between Caltrans staff internally between December 1, 2019, and May 1, 2020. Caltrans’ email servers delete emails automatically after six months.

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

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

Making Conservation a California Way of Life.

November 2019

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

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

Toks Omishakin
Director

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

Appendix B Comment Letters and Responses

This appendix contains the comments received during the public circulation and comment period from December 20, 2019, to February 14, 2020, retyped for readability. A Caltrans response follows each comment presented. Copies of the original comment letters and documents can be found in Volume 2 of this document.

Comment from: State Clearinghouse and Planning Unit

Comment 1:

February 18, 2020

Janet Bailey
Caltrans, District 10 – Stockton
1976 Dr. Martin Luther King Jr. Blvd.
Stockton, CA 95205

Subject: Mokelumne River Bridge
Upgrade SCH#: 2020019051

Dear Janet Bailey:

The State Clearinghouse submitted the above-named NEG to selected state agencies for review. The review period closed on 2/14/2020, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearninghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that: "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2020019051/2. Should you need more information or clarification of the comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at 916-445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Response to comment 1: Thank you for your comment.

Comment from: Central Valley Regional Water Quality Control Board

Comment 1:

28 January 2020

Comments to request for review for the negative declaration, Mokelumne River Bridge Upgrade Project, SCH#2020019051, Amador and Calaveras Counties.

Pursuant to the State Clearinghouse's 16 January 2020 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Negative Declaration* for the Mokelumne River Bridge Upgrade Project, located in Amador and Calaveras Counties.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

1. **Regulatory Setting**

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing

standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website: http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201 805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009- DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constperm its.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 Permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 Permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_cer tificati on/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non- federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface _water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/20 04/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/200 3/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waiv ers/r5-2013-0145_res.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adoptedorders/general orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4856 or Nicholas.White@waterboards.ca.gov.

Original Signed By:

Nicholas White

Water Resource Control Engineer

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento (via email)

Response to comment 1: This project is expected to create soil disturbances of less than 1 acre. Therefore, Caltrans does not qualify for coverage under the Construction General Permit. Instead, discharges of stormwater runoff from the construction sites will be covered under Caltrans' Statewide National Pollutant Discharge Elimination System Permit. The project will not need to formulate a Construction General Permit Stormwater Pollution Prevention Plan and will instead be required to formulate a Caltrans Water Pollution Control Program. Additionally, as previously mentioned in the document, Caltrans will apply for a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers and Clean Water Act Section 401 Permit—Water Quality Certification from the Regional Water Quality Control Board, which will be obtained prior to construction, during the design phase of the project.

Comment from: California Department of Forestry and Fire Protection Amador-El Dorado Unit

Comment 1:

From: Withrow, Robert@CALFIRE<Robert.Withrow@fire.ca.gov>
Sent: Thursday, January 9, 2020 4:35 PM
To: JIMENEZ, LUPE V@DOT Lupe.JIMENEZ@dot.ca.gov
Subject: Hwy 49 Bridge Improvement

Hello Ms. Jimenez,

It has been brought to my attention that CAL Trans is planning on making improvements to the Hwy 49 Bridge at the Amador Calaveras County Line. Who should I speak to with respect to sharing some concerns I have with the potential impacts to our response times?

Are you guys considering any public hears on this?

Thank you!!

Robert Withrow, Division Chief
CAL FIRE Amador El Dorado Unit
South Division Operations
Buena Vista Fire Department
Lockwood Fire Protection District
Pine Grove Youth Conservation Camp
530-708-2703

Response to comment 1: Thank you for reaching out to our office. We do not have plans for a public hearing on this project. We believe the comments we have received can be adequately responded to in writing, and with other types of communication. Also, under the current orders of the governor, we are not convening group gatherings.

We appreciate you attending the focused meeting between the Caltrans project development team and interested parties on May 1, 2020. We will be sure to include you in the workshop that will be convened between the project development team and interested parties during the design of the project, which will probably be in six to eight months.

Comment from: U.S. Bureau of Land Management

Comment 1:

Guadalupe Jimenez Senior Environmental Planner, Central Region Environmental, California Department of Transportation, 1976 East Dr. Martin Luther King, Jr. Boulevard, Stockton, CA 95249 (sic)

Subject: Comments regarding the "Initial Study with Proposed Negative Declaration"

Dear Mr. Jimenez

After reviewing the "Initial Study," the Bureau of Land Management appreciates the California Department of Transportation's efforts to minimize impacts to the Big Bar Day Use Recreation Facility, located on the Mokelumne River, and managed by the BLM Mother Lode Field Office. The BLM manages this popular public facility under a Recreational Easement, for clarification., and was part of the re-licensing of the Federal Energy Regulatory Agencies Project 137, Managed by PG&E. The Cal Trans study has incorporated several mitigation measures (Avoidance, Minimization, and/or Mitigation Measures, PAR-1 through PAR-7, Page 14) that if implemented during the construction of the project will cover most concerns the BLM had regarding public safety and access.

Response to comment 1: Thank you for your comment. Avoidance and Minimization measures PAR-1 through PAR-7 in the environmental document will be incorporated into the project design to avoid or minimize any impacts to resources.

Comment 2:

The BLM Mother Lode Field Office currently has limited staff, and there is a concern that a large construction staff will impact the only public toilet facility in the area and stretch our ability to maintain it adequately for the public to use.

BLM is requesting that portable toilets and sanitation facilities be provided in appropriate locations for construction workers to use during the duration of the project.

Thank you for considering these comments.

Jeff Horn, Lead Outdoor Recreation Planner, Bureau of Land Management, Mother Lode Field Office

Response to comment 2: Thank you for your comment. Caltrans' Standard Specifications include a requirement that requires contractors working on

Caltrans projects to provide portable toilet facilities for their crews whenever work is underway. Additionally, we will require that our contractor not use the parking area or any of the facilities of the Big Bar Day Use Recreation Facility for even temporary parking or idling equipment. There will be a Caltrans Resident Engineer onsite during construction should your staff have questions or concerns.

Comment from: Joshua Pack, Director of Public Works and Transportation, County of Calaveras

Comment 1:

Good afternoon, please see the attached comments from District 2 [Calaveras County] Supervisor Jack Garamendi regarding concerns with the potential use of local roads during construction of the Mokelumne River Bridge along Highway 49 (attached below in italics). I agree with the Supervisor and wish to convey that any proposed traffic delays [or] closures do not assume the use of local county maintained roads. Gwin Mine Road (and Middle Bar Road – maintained by Amador County) are not designed to handle the types of traffic volumes that could be diverted from Highway 49 in case of a larger scale closure or delay. Gwin Mine in particular was heavily damaged from the 2017 winter storms and is in no condition to carry significant traffic volumes.

If you can consider and address these concerns as part of your process we would greatly appreciate it.

Response to comment 1: Thank you for your comment. Caltrans' traffic management plan calls for a single-lane traffic closure on State Route 49 during construction, with traffic controlled by a temporary signal light at each end of the bridge. Our traffic management group has estimated that the maximum average wait time at the signal will be 10 minutes; the minimum average wait time will be closer to 3 to 4 minutes. We have been in touch with the California Department of Forestry and Fire Protection regarding prioritizing emergency response crews' ability to transit the bridge during urgent situations. We will not be recommending detours on county-maintained roads.

We will continue to develop the traffic management plan as we move through the design phase of the project. During the meeting between the project development team and interested parties on May 1, 2020, a suggestion was made for Caltrans to provide signage stating, "Not an approved construction detour," and install them at Gwin Mine and Middle Bar Roads to assist the counties in discouraging citizens from creating informal detours. The meeting attendees agreed to meet for a workshop during the design phase of the project. Caltrans will put on the workshop, which will include interested parties from local government and other agencies. We have collected your contact information, and our project manager will notify you and our California Department of Forestry and Fire Protection contact before this and other project development team meetings that occur periodically during the design phase. We encourage you and your staff to attend.

Comment from: Jack Garamendi, Calaveras County Supervisor, District 2

Comment 1:

Josh, I was informed that CalTrans is planning on doing a bunch of work on the Hwy 49 bridge of the Mokelumne River. The have made/circulated a NEGDEC on the project. My only concern is going to be that people may choose to try Gwin Mine Road in Paloma. That will have a significant impact on safety and the road.

Response to comment 1: Thank you for your comment. Caltrans' traffic plan calls for a single-lane traffic closure on State Route 49 during construction, with traffic controlled by a temporary signal light at each end of the bridge. Our traffic management group has estimated that the maximum average wait time at the signal will be 10 minutes; the minimum average wait time will be closer to 3 to 4 minutes. We have been in touch with the California Department of Forestry and Fire Protection regarding prioritizing emergency response crews' ability to transit the bridge during urgent situations. We will not be recommending detours on county-maintained roads. However, we do not have control over motorists' independent decision to use a given road.

We will continue to fine-tune the traffic management plan as we move through the design phase of the project. During the meeting between the project development team and interested parties on May 1, 2020, a suggestion was made for Caltrans to provide signage stating, "Not an approved construction detour," and install them at Gwin Mine and Middle Bar Roads to assist the counties in discouraging citizens from creating informal detours. The meeting attendees agreed to meet for a workshop during the design phase of the project. Caltrans will put on the workshop, which will include interested parties from local government and other agencies. We have collected your contact information, and our project manager will notify you and our California Department of Forestry and Fire Protection contact before this and other project development team meetings that occur periodically during the design phase. We encourage you and your staff to attend.

Comment from: Foothill Conservancy

Comment 1:

Mr. Lupe Jimenez
Senior Environmental Planner
California Department of Transportation
1976 East Charter Way
Stockton, CA 95205

By email transmission

Re: Highway 49 Bridge Negative Declaration

January 15, 2020

Dear Mr. Jimenez,

Foothill Conservancy appreciates the opportunity to comment on the CalTrans negative declaration regarding the Highway 49 Mokelumne River bridge upgrade. We are pleased to see that CalTrans plans to upgrade the bridge. When complete, the improved bridge deck and railings should provide a safer environment for pedestrians, cyclists, and motorists.

Foothill Conservancy is a charitable non-profit organization that has spent 30 years working to protect, restore and sustain the natural and human environment in Amador and Calaveras Counties, with special focus on the Mokelumne River. We want current and future visitors and residents to be able to experience and enjoy the rural beauty, natural diversity, and unique aquatic resources of this region.

We have been at the forefront in fighting for access to and protections for the Mokelumne River, including working with the State Lands Commission to open the Middle Bar Reach of the Mokelumne west of Highway 49 to public access, helping secure the construction of the Big Bar Launch facility at Highway 49, protecting the Middle Bar Reach from being inundated by an enlarged Pardee Reservoir, securing environmental and boating flows in PG&E's Mokelumne River Project hydroelectric license, and securing California Wild and Scenic River designation for 37 miles of the Mokelumne. The Highway 49 bridge crosses a portion of the state-designated river. The Big Bar Launch, funded in part with a state grant, is used by paddlers, anglers, swimmers, and other river visitors. It is the only legal boating takeout to the Electra Run of the Mokelumne, which is immediately upstream of the bridge.

We would like to thank CalTrans for consulting with the Natural Resources Agency to avoid project-associated adverse impacts to the Mokelumne Wild and Scenic River. Upon reviewing the document, we prepared the following

comments, which could be broadly put into five categories: Traffic/Transportation, Recreational Access, Safety, Natural Environment, and Technical Clarification. Please see below for our specific comments, concerns and questions.

Response to comment 1: Thank you for your support of the project, and for taking the time to comment.

Comment 2:

We also request that CalTrans hold an evening public meeting about this project in either Amador or northern Calaveras County so that members of the public have an opportunity to better understand this proposal, express any concerns they may have, and ask questions of CalTrans staff.

Response to comment 2: We appreciate your request for a public meeting to provide members of the community with an opportunity to ask questions of Caltrans staff. However, Caltrans is not currently holding public meetings due to social distancing requirements provided by Governor Gavin Newsom.

As a response to your request, we provided a teleconference meeting during business hours with members of our project development team and any interested participants from the community, via WebEx, a digital meeting platform. We were pleased that three people representing your agency were able to attend and participate. We have agreed to organize a workshop during the design phase of the project to provide further specifics on our efforts to ensure that your concerns are adequately addressed throughout the project.

Comment 3:

Traffic/Transportation

The Highway 49 crossing of the Mokelumne River is heavily used by visitors to our area, by river recreationists, and also by residents of Calaveras County who travel into Amador County for shopping, medical visits, hospital access, and work.

We found details lacking regarding how traffic will be managed during construction. We believe that reducing the highway to one-way traffic could create more-extensive and more-significant impacts than identified in the negative declaration. Our comments below are based, in part, by a review of the negative declaration by licensed traffic engineer Charles R. “Bob” Leitzell, who helped design the ingress and egress to the Big Bar Launch and is a former Calaveras County Public Works Director.

- **Traffic delays.** We are concerned that the use of fixed-time signals could cause significant traffic delays, similar to those that recently occurred at the junction of SRs 88 and 89 in Hope Valley, near Sorenson’s Resort.

There were long delays there, even when no vehicles were moving through the intersection. To reduce delays, we suggest that you use some type of actuated signal system. An actuated signal system that uses sensors in the pavement or on poles would detect vehicles to avoid dead time when no one is moving. An alternative would be to have flaggers during the day to control traffic and an actuated signal system at night. In addition, we request that the signals include an emergency override so that emergency response vehicles can get through the construction area in an expedited manner.

Response to comment 3: Traffic management during construction is addressed during the development of detailed construction plans and specifications for the project. This includes preparing detailed plans on when certain construction activities can occur, and when lanes are closed to minimize impacts and preparing signage. Detour routes were not specified in the environmental study because highway traffic will not be detoured off the State Highway System.

Comment 4:

- **Recreational use.** Along Electra Road and at the Big Bar Launch, recreational use increases on every spring and summer weekend and during big holiday weekends (Independence Day, Memorial Day, Labor Day). In general, vehicle traffic increases before, during and after other holidays (Thanksgiving, Christmas). Lastly, every September, since 1978, the Sierra Club Loma Prieta Paddlers host a slalom and downriver kayak, canoe, and SUP race along the Electra Run; this even draws a very large crowd to the river corridor. We would like to see provisions that limit construction during these high-use times, and also have flaggers on site at the bridge, at Electra Road, and at the entrance and exits to the Big Bar Launch.

Response to comment 4: Caltrans produces a traffic management plan for every project it undertakes, including this one. The traffic management plan is a living document. It starts in the earlier stages of the project as a general discussion of the existing infrastructure in the project area and what type of traffic control is likely to be undertaken during the project. As planning, design, and public comment continue, the traffic management plan will evolve as well, gaining specificity and detail.

As a direct result of community feedback about this project, Caltrans' traffic planning efforts are moving forward earlier than usual. An example of the helpful feedback was information about the Federal Energy Regulatory Commission's annual calendar for boaters. This calendar is published to the Federal Energy Regulatory Commission's website in late spring each year, documenting the days and times in the upcoming season when the utilities will provide recreational streamflows to service boaters.

It is typical for contractors to develop construction schedules that avoid heavy traffic impacts on days near holiday weekends. In the case of this project, one of those weekends will be the weekend of the Loma Prieta Paddlers race. Additionally, the annual calendar for boaters will provide Caltrans and the contractor with essential information regarding traffic expectations on weekends through the rafting season.

Comment 5:

- **Electra Road access.** Another popular place to recreate, as well as the put-in for the popular Electra Whitewater Run, is along Electra Road. Electra Road meets SR 49 just north of the bridge. We are concerned that during the project, southbound traffic will be backed up, blocking the turn for Electra Road, which will deter people who wish to use that road to access the Mokelumne River. Furthermore, motorists exiting the road who want to head in the southbound direction will have to wait for all the backed-up traffic to clear before continuing. To avoid longer-than-necessary wait times, we request implementing actuated signals for the lights (as mentioned above), as well as having a flagger on site to direct traffic during high-use times.

Response to comment 5: Caltrans has agreed to provide flaggers and temporary pavement markings to maintain entry and exit to Electra Road and the Big Bar Recreation Area. The contractor's staff, the Caltrans Resident Engineer, and a Caltrans inspector will be onsite during construction activities to monitor the state of traffic. This issue will be revisited during the design phase; it will also be a part of workshop conversations.

Comment 6:

- **Local road impacts.** We are concerned that local residents who regularly travel across the Mokelumne on Highway 49 for work, shopping, and other purposes will anticipate the traffic delays associated with construction and opt to take other routes between the counties. The main alternative route is over Paloma, Gwin Mine, and Middle Bar Roads. These roads are already in poor condition, and the additional traffic will likely further degrade their pavement condition**.** We recommend CalTrans study the effects of increased traffic on alternate routes and mitigate identified impacts by providing funding to Amador and Calaveras Counties to repair those roads and prepare them for increased use.

Response to comment 6: Caltrans will not designate any local road as a detour while rebuilding the bridge rails and widening the deck of the Mokelumne River Bridge on State Route 49 north of Mokelumne Hill. Caltrans plans on installing a temporary traffic signal to allow one-way traffic control (reverse control) during the construction period, which is expected to be 90 working days (four calendar months).

During our meeting on May 1, 2020, Quan Trinh, with Caltrans' Traffic Management, projected that the actuated signal would average 3 to 4 minutes. Delays could be as much as 10 minutes during the highest peak times. Caltrans is sensitive to the needs of its local partners and will do as much as it can to encourage its contractor to minimize traffic disruptions to the greatest extent consistent with public and worker safety. This issue will be revisited during the design phase; it will also be a part of workshop conversations.

Flaggers may also be used during the daytime, especially during holiday weeks, to help with traffic control and reduce delays, and to help facilitate entry and exist for recreational users more efficiently. A suggestion was made during the meeting to provide signage at local roads notifying motorists that they are not to be used as a detour. Caltrans will look into this in consultation with local authorities.

Comment 7:

Recreational Access

As noted in the report, the Big Bar Launch is a heavily used boating take-out. It is the only legal takeout for boaters on the Mokelumne Electra Run and took decades of negotiation to plan and build. Equally popular is the use of Electra Road for a boating put-in, angling, family water play, wildflower viewing, walking, swimming, and access to PG&E facilities. The Electra Run is one of the most popular river reaches in Northern California for beginning kayakers, who need to exit the river about the Class III Devil's Toilet Bowl rapid downstream of the Big Bar Launch, which requires more expert paddling skills. Additionally, the Electra Run falls entirely within a reach of the mainstem Mokelumne river that is designated under the CA Wild and Scenic Act for its unique and extraordinary recreational resource values.

- **Bureau of Land Management Big Bar Launch.** BLM manages this facility under an access easement granted by a local family. BLM is responsible for the maintenance and repair of the facility under the easement. The take-out facility was paid for in part by a grant from the California Division of Boating and Waterways. The grant contract stipulates that "the Project Area shall be open and accessible for the use and enjoyment by the general public on equal and reasonable terms." We are concerned that ingress and egress to the Big Bar Launch will be hampered by construction, potentially violating the grant agreement between BLM and DBW.

Response to comment 7: All users will have reasonable, safe, and equal access to the area. Caltrans will encourage the contractor to move equipment during periods of low public demand for access as much as is practicable. The contractor will also be required to provide flagger(s) during such moves if

traffic warrants. The Bureau of Land Management commented on the project and did not express concerns about the project as described.

Comment 8:

Page 13 of the environmental document says, “The design team worked closely with the environmental team to develop a plan for construction activities that would maintain upstream access to the Big Bar amenities throughout construction, except for briefly at the start of construction activities when the person-lifts and cantilever catwalks would be put into place.” Furthermore, it reads that, “it is likely that vehicle traffic using Big Bar Road to gain access to the parking lot may experience brief delays during times that equipment is being moved into or out of the staging area.” Later on page 13, “Users of the recreation area would experience some restricted access to the river bank and the water during construction and pre-construction activities.” The first quote and the third quote are conflicting.

Response to comment 8: The statement that Caltrans has developed a plan “that would maintain upstream access…throughout construction,” is specific to Caltrans having prioritized keeping the Big Bar Recreation Area available for watercraft coming from upstream (Electra Run) and those wishing to use Big Bar as a take-out for their watercraft. The statement that users “would experience some restricted access to the riverbank and the water during construction,” acknowledges that, while users currently and generally have access to the riverbank and the water without limitation, when there are construction equipment and activity in the vicinity, there will be some areas that will not be accessible to users. Nevertheless, Caltrans has committed to maintaining as much access to the amenities as is consistent with public and construction safety.

During our meeting on May 1, 2020, Stephen Pozzo, a structures construction engineer, and Kal Daher, a design manager, provided estimates that public access to the bank of the river will be limited for roughly 100 linear feet, or about 30 feet, on either side of the bridge structure itself.

An extended conversation followed during which Theresa Simsiman and Katherine Evatt expressed specific concerns about rafters/kayakers being provided safe and adequate access to the bank in a location that would provide natural protection from the currents (an eddy). The two also discussed and evaluated the map (see Figure 4-2) with the group. Concerned parties ended the exchange by stating that access was probably adequate but would need to be revisited under higher (recreational) water levels. This issue will be revisited during the design phase; it will also be a part of workshop conversations.

Comment 9:

We seek clarification on the following:

- a) What is the anticipated frequency and duration of restricted access?

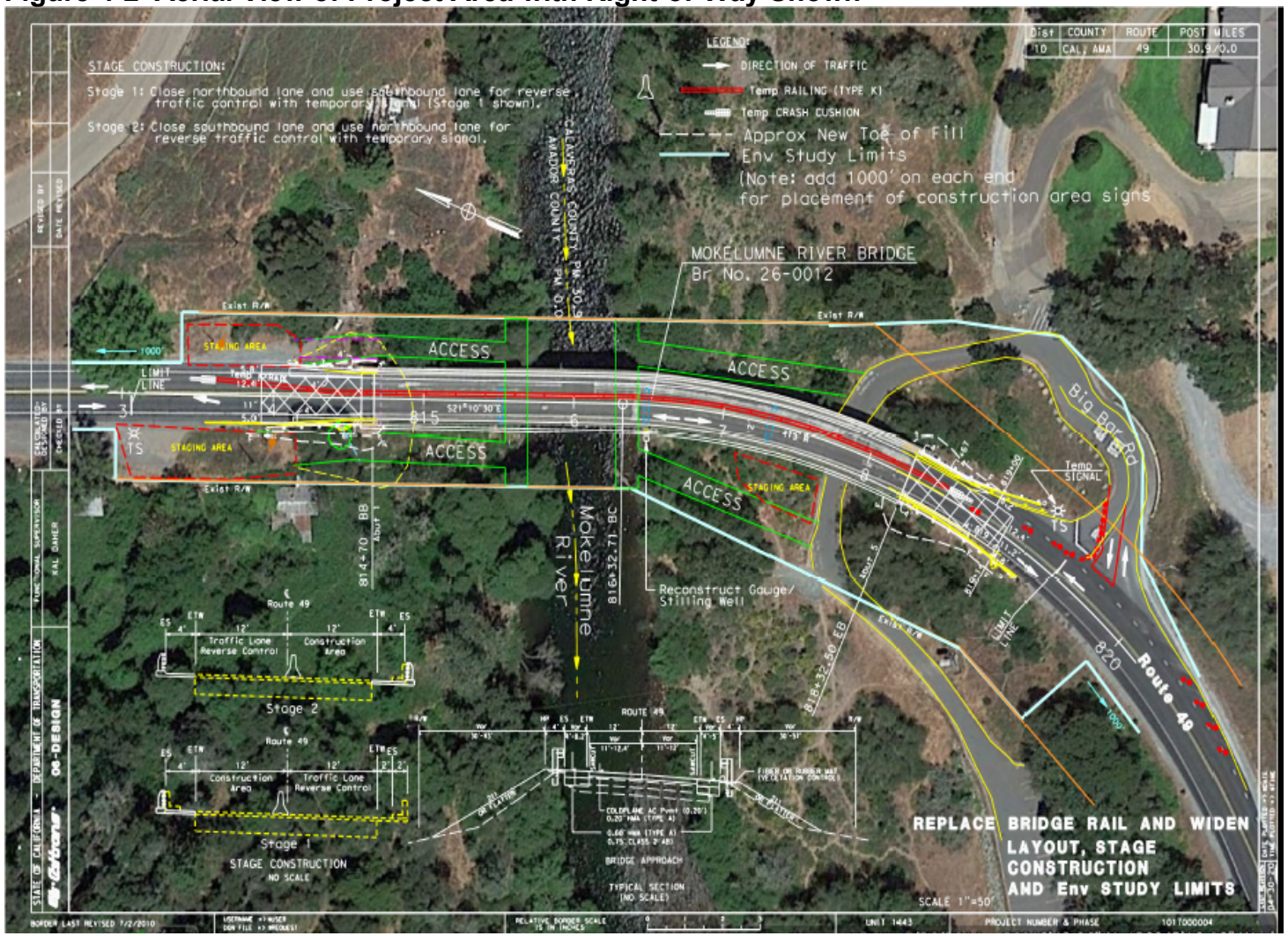
Response to comment 9: Currently, the expected schedule is for construction to take 90 working days. The contractor selected to execute this work will be responsible for determining how the work will be accomplished. Caltrans will include requirements in contract documents stating that the contractor must minimize public disruption to the greatest extent possible consistent with safety. Please see the response to comment 4.

Comment 10:

- b) What are the boundaries of the area that access will be limited?

Response to comment 10: The area that will see limited access will likely be immediately next to the bridge structure—roughly 30 feet on either side of the structure, as well as directly beneath the structure. In no case will any construction work occur outside the Caltrans right-of-way—the area marked by the pale blue line in the aerial view, (see map below, Figure 4-2).

Figure 4-2 Aerial View of Project Area with Right-of-Way Shown



Comment 11:

- c) Where exactly will the staging area be for construction equipment?

Response to comment 11: The contractor will use the loop at the top of Big Bar Road, between the road and the bridge structure. The contractor will not be allowed to use the parking area or amenities at the Big Bar Recreation Area as part of the contract. Please see Figure 4-2 on the previous page.

Comment 12:

- 2) Electra Road. See recreation access concerns under Traffic, above.

Response to comment 12: Please see response to traffic concerns.

Comment 13:

Public Safety

- 1) **Emergency vehicle access; resident and recreationist evacuation.** Page 51 of the document states that, "while State Route 49 is a regionally important route, it is not the only route for entering or exiting Calaveras and Amador Counties." It is true that there are other routes that link the counties, however, CalFIRE's Amador-El Dorado and Tuolumne-Calaveras Units share resources during wildland fires. SR 49 is a primary route for this, depending on the incident location. It is critical that in the event of an emergency, access between the counties be maintained for wildfire suppression activities as well as to allow rapid evacuation. As mentioned in the Traffic/Transportation section above, we suggest that at a minimum an emergency vehicle override in the signal operation be installed.

Response to comment 13: Please see our response to comment 3. Caltrans prepares a traffic management plan for all projects.

During our meeting on May 1, 2020, Vu Nguyen, head of Traffic Operations, and Quan Trinh of Traffic Planning, were available to discuss traffic and congestion concerns in some detail. Quan Trinh was able to assure all interested parties that traffic modeling shows that project queue time will average 3 to 4 minutes during the duration of the project. Vu Nguyen was able to assure interested parties that Caltrans will provide an actuated signal, as requested, that will manage traffic during the nighttime and low traffic periods during the day and will be increased with flaggers. Caltrans has agreed to look into the availability of an emergency override for first responder vehicles using State Route 49.

Comment 14:

In addition, it is important to note that Electra Road is a one-way, dead-end road. Maintaining ingress for emergency vehicles and egress for residents, visitors and PG&E staff is a critical public safety issue. Every summer, there are river-related medical aid calls and rescues along Electra Road.

Response to comment 14: Please see our response to comment 3. Caltrans prepares a traffic management plan for all projects.

Comment 15:

We also recommend that CalTrans explore other options for the project, specifically shifting the dates for construction to the months of November through February, which are outside the regular fire season. This would also address concerns with disturbing breeding migratory bird nests (see below) and avoid clocking local river recreation access during the busy spring and summer months. It might also allow for night-time construction, which would reduce traffic delays.

Response to comment 15: Caltrans must comply with limitations imposed by the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and the Central Valley Regional Water Quality Control Board for stream zone construction activities.

- **BIO-4:** *Limited Operation Period—Stream Zone Construction Activities*: Construction activities that occur below the top of the bank of the Mokelumne River within the project action area are proposed to take place between June 1 and October 15 of any construction season, unless earlier or later dates for in-channel construction activities are approved by the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and the Central Valley Regional Water Quality Control Board. By requiring contractors to stick to these dates for stream-zone construction, the project proponent will minimize project effects to receiving waters.

Additionally, water quality regulations require that concrete that is poured at the project site (“cast-in-place”) must be installed outside the rainy season.

- **WQ-4:** Cast-in-place concrete structures should have enough time to cure before the rainy season.

During a meeting on May 1, 2020, Stephen Pozzo, a structures construction engineer for Caltrans, reported to interested parties that Caltrans is generally not allowed to work in riparian areas between October 15 and April 15. The reason is due to the harm that may be caused to riverine habitat by runoff of construction materials or debris during a sudden rain event. Occasionally, Caltrans may be allowed to continue construction at the end of a season in specific circumstances. However, this must be approved by the California Fish and Wildlife, U.S. Army Corps of Engineers, and Central Valley Regional

Water Quality Control Board on a case-by-case basis for a limited amount of time.

Many construction materials, including paving materials, must be used when ambient temperatures are above a certain level. Traffic hazards are worse during winter driving. Stopping distance is longer, visibility is shorter, and speed becomes a greater danger.

Comment 16:

Natural Environment

We were pleased to see CalTrans include some provisions and protections to prevent debris from entering the river, as well as bat mitigation measures. However, we have some unanswered questions regarding migratory birds, tree removal activities, and the displacement of streamflow gauges.

- 1) **Migratory birds.** The document recognizes that swallows nest on the soffits of the bridge overhangs. On page 29, as part of the upgrade, we learn that, "the would remove the cantilevered concrete deck overhangs, which may conflict with nesting for these species." It is unclear whether the part of the bridge on which the bird's nest will be physically removed. In addition, if nests will be removed, that appears to conflict with a statement on page 31 stating, "if construction or other project-related activities that may potentially cause nest destruction, nest abandonment or forced fledging of migratory birds are necessary, monitoring of the nest site by a designated biologist would be required to ensure that protective radii and any exclusionary devices are maintained and functioning." It is unclear whether occupied swallow nests will need to be removed as part of the upgrade, and if so how CalTrans intends to comply with the federal Migratory Bird Treaty Act. We request that you clarify the apparent conflicts in the document, provide more details regarding how the project will affect migratory birds, and include clear mitigation measures. As noted above, shifting the construction period to outside the nesting season would also avoid adverse impacts to migratory birds.

Response to comment 16: Caltrans complies with all requirements of the Migratory Bird Treaty Act on all its projects. The project scope for bridge rail replacement would include removing and replacing the existing concrete overhangs—the underside of which are referred to as the "soffits"—that are currently substrates for swallow nests. This scope makes using nesting bird avoidance measures necessary. Removing occupied nests would result in a violation of the Migratory Bird Treaty Act.

Proposed nesting bird avoidance measures are detailed in the Natural Environment Study that Caltrans biologists prepared in August 2019. A copy of that document is available upon request. Specific measures for compliance with the Migratory Bird Treaty Act and the order of their implementation are

dependent on when construction activities are scheduled to start. Measures to avoid active nests would follow the following sequence:

- Remove Nesting Habitat During Non-Nesting Season: Performing structures work on the Mokelumne River Bridge, woody vegetation removal, or other construction activities within nesting bird habitat during the non-nesting season (between October 1 and January 31) would not require pre-construction surveys or the use of nest-exclusion devices for migratory birds.

Although not specified in the Natural Environment Study document, Caltrans would consider the contractor's proposals to remove un-occupied swallow nests from the structure during the non-nesting period.

- Exclusionary Devices: If work that could interfere with bird nesting sites is proposed or is likely to occur between February 1 and September 30, devices such as netting or other means may be used to block access to bird nesting sites where work may be performed. This is provided that the devices are installed outside the nesting season—after September 30, but before February 1—of any construction season. If it becomes necessary, they may be installed during the nesting season, but only in areas not occupied by nesting birds, as determined by the designated biologist. Exclusionary devices for migratory birds may be removed when a designated biologist determines that work will not interfere with bird nesting sites or until all construction activities in bird nesting areas are completed.
- Although not specified in the Natural Environment Study document, Caltrans would consider the contractor's proposals to remove any partially built, un-occupied swallow nests from the structure during the nesting period as an exclusion measure.
- Protective Buffers: If nesting migratory birds or nesting raptors are detected during a pre-construction survey, the appropriate no-work buffer will be established around the nest. No work will start within the buffer until the Caltrans Resident Engineer receives authorization, after consulting with the designated biologist. This scenario is the highest risk since it could result in construction delays and is avoided for that reason. The installation of exclusion devices before the nesting season or before nesting activity reduces this risk.
- Construction Monitoring: If construction or other project-related activities that may cause nest destruction, nest abandonment, or forced fledging of migratory birds are necessary, a designated biologist will monitor the active nest site to ensure that protective buffers are seen. The designated biologist will also ensure that exclusionary devices are maintained and functioning properly. This measure is not in conflict with any of the other proposed nesting bird protection measures. This measure is intended to communicate to the reader that monitoring will be required to ensure that

protective buffers and any exclusionary devices are monitored and maintained. There are no mitigation measures stated in the Negative Declaration because there is no expectation of adverse impacts to any species of concern.

Comment 17:

- 2) **Tree Removal.** The document states that placement of permanent fill near the southwestern abutment "may require the removal of two to five mature interior live oak trees." We would like clarification on which trees are going to be removed and a map that indicates their location. What is their diameter at breast height?

Response to comment 17: A map showing the location of the southwestern abutment where interior live oak trees may be removed appears in Figure 7 of Caltrans' 2019 Natural Environment Study. A copy of the study is available upon request. All interior live oak trees in this area are considered mature—over 4 inches diameter at breast height—although no field measurements were gathered for the Natural Environment Study.

At the level of detail provided in the current design, it is currently unknown if any oak tree specimens will require removal from the identified area at the southwestern abutment. Estimated removal of existing trees near the proposed toe of slope for the southwestern was included in the analysis as a "worst-case" impact scenario.

No mature trees that have a diameter at breast height that is greater than 4 inches will be removed for temporary access or temporary construction staging/storage areas. All mature native trees in the riparian zone of the Mokelumne River will be designated as "environmentally sensitive areas."

Comment 18:

- 3) **Streamflow gauge.** Long-term and ongoing streamflow data sets are important to inform hydrologists and biologists about past conditions so they can make management decisions. Recreational boaters and anglers also use nearly real-time data to plan safe trips. Every cross-section of river is unique and different, and during the period in which the existing gauge is relocated, river users should be advised that the data may not be equivalent to past readings. We also have the following questions:
    - a) To what location will the equipment be relocated?
    - b) How long will it take to relocate the equipment and how will you minimize gaps in data?
    - c) What aspects of the new location make it a good proxy for the current location, as to maintain the integrity of the long-term data set and inform boaters and anglers?

Response to comment 18: Caltrans staff met with East Bay Municipal Utility District (the utility) staff at the project location in the winter of 2019 to discuss this project in general, and the streamflow gauge in particular. Our understanding is that the gauge is owned and maintained by the utility mainly for its use in managing inflow to its downstream reservoirs. Our agreement with the utility is related only to the fact that its equipment is attached to Caltrans' bridge, and will need to be relocated during the construction of this project. Caltrans will work with the utility to remove the equipment from its structure. Where the utility will place its equipment during construction, and the other questions you asked are better suited for the utility to answer.

The location of the stilling well is up to the utility. We have discussed with the utility that it may keep the stilling well in the same location; however, we have not received the plans. We will accommodate the utility during construction.

Comment 19:

Technical Clarification

- 1) **Proper name of the river segment.** While it is true that the North Fork and Main Mokelumne River have segments designated under the California Wild and Scenic Rivers Act, the Highway 49 bridge crosses the main stem of the Mokelumne, not its North Fork. The main stem of the river begins at its confluence of the river's North and Middle Forks, well upstream.

Response to comment 19: Thank you for pointing out this error. We have corrected the text in the document.

Comment 20:

- 2) **Outdated amphibian data.** Page 27 of the document states that, "there have been documented occurrences of foothill yellow-legged frog as recently as 2009 within the Mokelumne rivershed." That information is outdated. As recently as 2018, PG&E Mokelumne River Project 137 amphibian studies have found FYLF habitat and sightings in the North Fork Mokelumne upstream of Tiger Creek Powerhouse. In addition, FYLF in our region is now listed as endangered under the California Endangered Species Act. The Project 137 amphibian monitoring reports are available from PG&E and on the Federal Energy Regulatory Commission e-Library.

Response to comment 20: The information in the document comes from the California Natural Diversity Database, an inventory of the status and locations of rare plants and animals in California. The data help drive conservation decisions and aid in the environmental review of projects and land-use changes. The reference to the documented occurrences of foothill yellow-legged frogs in the Mokelumne River watershed dated from 2009 is specific to the database records FID Number 53566, Number 72216, Number 72222,

and Number 36279. All database records are along Tiger Creek, upstream of the confluence with North Fork Mokelumne River, and each of these records is associated with surveys conducted for the amphibian monitoring program you referenced. The database does not currently contain later survey results associated with that amphibian monitoring program. Caltrans would encourage the Pacific Gas and Electric Company to report its data from the 2018 survey results to the California Natural Diversity Database. Reporting such data would help meet the stated goal of providing the most current information available on the state's most at-risk elements of natural diversity and to provide tools to analyze these data.

At the time of the Proposed Negative Declaration (December 6, 2019), the foothill yellow-legged frog was a candidate under the California Endangered Species Act. Caltrans acknowledges that later that month, the California Fish and Game Commission approved California Endangered Species Act protections for five populations of the frog, including frog populations in the Southern Sierra Nevada and within the project action area.

The Caltrans August 2019 Natural Environment Study considered the project's potential to adversely affect the foothill yellow-legged frog and the project's potential to result in "take" of the foothill yellow-legged frog as defined by California Fish and Game Code Section 86. A copy of the Caltrans Natural Environment Study is available upon request.

Although the status of the foothill yellow-legged frog has changed, the potential for the project to result in take of the species presented in our 2019 Natural Environment Study remains valid. The potential to encounter a foothill yellow-legged frog at this segment of the Mokelumne River is low. This determination is based on the lack of recent occurrences recorded within the project vicinity, the managed water flow regime which likely prevents successful breeding in this segment of the Mokelumne River, and on the lack of detection of this species during focused surveys. With the implementation of avoidance measures as part of the project, Caltrans determined that construction activities within the project's action area will not result in take—as defined by California Fish and Game Code Section 86—of this protected species.

Comment 21:

- 3) **Planned dam releases.** On page 45, item **d** states that "the risk of flood is limited because the river is governed by planned releases from dams both above and below the Mokelumne River Bridge; the releases are controlled by the East Bay Municipal District…" Flows upstream of Highway 49 are controlled by PG&E, not EBMUD. EBMUD's planned releases are from its Pardee and Camache dams, which are downstream of the project area. It should be noted that in times of large winter storms or high spring runoff, the PG&E system cannot completely control river

flow, and localized flooding does occur along Electra Road and on portions of the Big Bar Launch.

Response to comment 21: Thank you for catching this error regarding utility ownership. The correction has been made in the text. Your statement of the localized flooding that can occur during heavy winter storms or spring melts is true. A team of Caltrans staff saw the aftermath of a localized incident on a visit in winter 2019. With the careful attention of both East Bay Municipal Utility District and The Pacific Gas and Electric Company, there was no clear damage to the infrastructure at the Big Bar Recreation Area or any structures.

Item d in the CEQA checklist has been revised. It now reads, “The risk of flood is limited because the river is governed by planned releases from dams above and below the Mokelumne River Bridge. The Pacific Gas and Electric Company controls the releases upstream of the bridge; the East Bay Municipal Utility District controls the releases downstream of the bridge. The East Bay Municipal Utility District measures the volume and velocity of the river flow several times daily. Also, construction materials are not expected to include hazardous substances, and the planned staging areas are well above the elevation of the river. The project is not expected to change existing Drainage patterns or volumes. Implementation of standard measures WQ-1 through WQ-8 (as described in Chapters 1 and 2) will prevent impacts on water quality.” (Water Quality Report, August 2019)

Comment 22:

Conclusion

It’s clear that this bridge improvement, when complete, will benefit those who drive, walk or cycle over the Mokelumne on Highway 49. We have prepared these comments as to improve the safety, human environment and natural environment of Amador and Calaveras during and after the construction of the bridge. We urge CalTrans to carefully consider all of our comments, consider shifting the construction period for the project, and hold an evening public meeting in Amador or northern Calaveras County.

We appreciate this opportunity to comment.

Very truly yours,

Sherry A. Pease
Executive Director

Comment from: American Whitewater

Comment 1:

January 16, 2020

Lupe Jimenez
Senior Environmental Planner
California Department of Transportation
1976 East Charter Way
Stockton, CA 95205

RE: Mokelumne River Bridge Upgrade Initial Study with Proposed Negative Declaration.

Dear Lupe Jimenez,

American Whitewater appreciates the opportunity to comment on the Caltrans Mokelumne River Bridge Upgrade Initial Study with Proposed Negative Declaration. Specifically, we provide comments regarding paddling recreation resources important to our constituents who reside in and travel to California to paddle the state's outstanding whitewater rivers, including the Electra to Middle Bar reach of the California State Wild and Scenic Mokelumne River.

Background

Founded in 1954, American Whitewater is a nonprofit, 501(c)(3) organization devoted to protecting and restoring America's whitewater resources to enhancing the public's ability to enjoy them safely. American Whitewater is a membership organization with over 6,000 members and 100 affiliate clubs representing 30,000 whitewater paddlers across the nation. Our California affiliate clubs include Chico Paddleheads, Gold Country Paddlers, River City Whitewater Club, Shasta Paddlers and Sierra Club Loma Prieta Paddlers. Our organization has spent over two decades on river restoration efforts to mitigate impacts of existing water development projects I the Mokelumne watershed. In 2014, American Whitewater authored the Mokelumne River Outstandingly Remarkable Values Recreational Statement that provided the basis for the "unique and extraordinary recreational resource values" recognized in the4 California State Wild & Scenic River designation. Currently, we are an active member of the Ecological Resource Committee working with PG&E to manage the FERC Mokelumne River Project 137.

Comments

Beginner to intermediate paddlers seek the lush riverside of the easy access Electra to Middle Bar Run as an alternative to the overcrowded South Fork of the American River. It is known for its friendly class II rapids and one steppingstone class III rapid at "Devil's Toilet Bowl" below the Highway 49

Bridge. It can be run by a variety of river craft including inner tubes, kayaks, large rafts and stand up paddling (SUP) boards. As recognized in your report the Big Bar facility located by Highway 49 is heavily used. For paddlers Big Bar acts as both a boating take-out for the Electra segment and a put-in option for paddlers to do laps on the class III “Devil’s Toilet Bowl” rapid eventually proceeding downstream to the Middle Bar take-out.

While American Whitewater does not object with the necessary improvements needed for the Highway 49 Bridge, we are concerned about the conflict of the timing of River closures at Highway 49 Bridge and the Big Bar Facility closures. As described within the report it is not clear the impact construction would have on scheduled recreational streamflows and the annual Mokelumne Race.

Response to comment 1: Caltrans is very interested in working with local communities to minimize conflicts during construction. We appreciate your attendance at our project development team meeting with interested parties that took place on May 1, 2020, via WebEx. We were pleased that your organization was able to attend and participate. We have agreed to organize a workshop during the design phase of the project to provide further specifics on our efforts to ensure that your concerns are adequately addressed throughout the project.

We will notify you and other interested parties of our next project development team meeting that will take place as the project moves into the design phase early this summer.

In this section of the Mokelumne River, the Pacific Gas and Electric Company provides annual scheduled recreational streamflows as prescribed by the Federal Energy Regulatory Commission Hydropower License. Between May and September, depending on water year type, the Pacific Gas and Electric Company schedules 12 to 16 days of recreational streamflows for public enjoyment:

Condition Number 28 - Recreation Streamflows in Below Normal, Above Normal, and Wet Water Years

…the Licensee shall provide streamflows of at least 700 cubic feet per second between 10 a.m. and 4 p.m. at the Electra Run whitewater boating put-in for an average of three out of every four weekend days between May 1 and June 15, and an average of two out of every four weekend days between June 16 and July 31.

Condition Number 29 - Recreation Streamflows in Dry and Critically Dry Water Years

…the Licensee shall provide recreation streamflows of at least 700 cubic feet per second between 10 a.m. and 4 p.m. at the Electra Run whitewater

boating put-in for an average of one out of every four weekend days between May 15 and June 30, and a minimum of nine weekend days equally spread among July, August, and September.

Additionally, the Pacific Gas and Electric Company provides a weekend of recreational flows in September for the Mokelumne Races. American Whitewater affiliate club Loma Prieta Paddlers has sponsored the slalom and downriver race event since 1978. This event can draw up to 100 paddlers and their families, which contributes to the local economy each year.

Comment 2:

Since these scheduled recreational flows and the Mokelumne Races happen on the weekend we don't foresee many opportunities for conflict but would like the ability to coordinate these events with Caltrans to ensure minimal impact from river and Big Bar facility closures.

Traffic Impacts to Electra Road and Over Highway 49 Bridge

Paddling constituents travel north and south over the 49 Bridge to access the Mokelumne River, set-up shuttle and park. When Big Bar is closed to parking and access, Electra Road is impacted from relocated parking and access alongside the river. Furthermore, delays in traffic over the 49 bridge may impact paddlers traveling to the river in time to take advantage of opportunistic flows on the Mokelumne River. These impacts would increase during high traffic holiday weekends like Memorial Day, July 4th and Labor Day. CalTrans should consider provisions and traffic management plans that mitigate these impacts. This includes limiting construction during holiday weekends and providing flaggers going into and leaving Electra Road and Big Bar Recreation Area.

Response to comment 2: Traffic management during construction is addressed during the development of detailed construction plans and specifications for the project. This includes preparing detailed plans on when certain construction activities can occur, when lanes are closed to minimize impacts, and preparing signage.

Comment 3:

Public Hearings Are Needed

Although American Whitewater believes that the upgrade of Highway 49 Bridge over the Mokelumne River is an important and necessary project, we have concerns that the project remains transparent and responsive to the public. Similar to the public meetings called for during the Highway 49 Bridge Replacement Project over the South Fork American River, it is our hope CalTrans will schedule public hearings for the local communities of Amador

and Calaveras County. We request that CalTrans hold these public hearings in the evening to outline specifics of the project and allow for public discourse.

Conclusion

American Whitewater recognizes the importance of the project to update the Highway 49 Bridge over the Mokelumne River. We hope to work collaboratively with Caltrans and other stakeholders to mitigate the concerns we outline above regarding scheduled recreational flows and traffic impacts. We also look forward to public hearings that will ensure the project remains transparent to the public. Thank you for the opportunity to provide comment.

Sincerely,

Theresa L. Simsiman
California Stewardship Director
American Whitewater
916-835-1460

Response to comment 3: We appreciate your request for a public meeting to provide members of the community with an opportunity to ask questions of Caltrans staff. However, Caltrans is not currently conducting public meetings due to social distancing requirements provided by Governor Gavin Newsom. Additionally, no members of the public, aside from two nonprofit agencies, expressed interest in or concern about the project.

As a response to your request, we provided a teleconference meeting during business hours with members of our project development team and any interested participants from the community, via WebEx. We were pleased that three people representing your agency were able to attend and participate. We have agreed to organize a workshop during the design phase of the project to provide further specifics on our efforts to ensure that your concerns are adequately addressed throughout the project.

Comment from: California Department of Fish and Wildlife

Comment 1:

Sent: Friday, February 14, 2020 3:05 PM
To: JIMENEZ, LUPE V@DOT <Lupe.JIMENEZ@dot.ca.gov>
Cc: Wildlife R2 CEQA <R2CEQA@wildlife.ca.gov>
Subject: Mokelumne River Bridge Upgrade SCH# 2020019051/Negative Declaration

The California Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Initial Study with Proposed Negative Declaration for the Mokelumne River Bridge Upgrade Project (Project) in Amador County. The Department is responding as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802 and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration (LSA)Agreement (California Fish and Game Code Sections 1600 et seq.) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1). The Department has the following comments:

- 1. Pages #30-31 of the ND lists several Avoidance, Minimization, and/or Mitigation Measures. For this reason, CDFW recommends this document be identified as a “Mitigated Negative Declaration” considering the incorporation of Mitigation Measures it does not appear that a “Negative Declaration” is appropriate.

Response to comment 1: Thank you for your review of the document and your comments and suggestions. In chapter 2 of the Negative Declaration, we placed an explanatory paragraph at the beginning of the Avoidance, Minimization, and/or Mitigation Measures section related to parks and recreation facilities. We did this to make clear to the reader that the measures discussed are project features, as opposed to true mitigation measures, that are necessary to reduce the project impacts to below significance.

Measures will be incorporated into the project itself to prevent project-related impacts to the Big Bar Boat Launch and Recreation Area. Other measures will be included in the construction contract to protect access and the safety of the public.

We have inserted a revised version of that paragraph at the beginning of the Avoidance, Minimization, and/or Mitigation Measures section for biological resources, including the section you noted. All the measures that appear in any of the Avoidance, Minimization, and/or Mitigation sections in the document appear in either Caltrans’ Best Management Practices or Caltrans’

Standard Specifications. As such, they are included in most, if not all, Caltrans construction contracts.

Comment 2:

- 2. The Mokelumne River watershed has previously documented occurrences of Foothill Yellow-Legged Frog (FYLF) and it is unclear if adequate protocol surveys were performed. Please be aware that if "take" or adverse impacts to species listed under CESA cannot be avoided either during Project activities or over the life of the Project, a CESA permit must be obtained (pursuant to Fish and Game Code Section 2080 et seq.). Issuance of a CESA permit is subject to CEQA documentation; therefore, the CEQA document should specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the proposed Project will impact any CESA-listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA permit. More information on the CESA permitting process and associated fees can be found here: https://www.wildlife.ca.gov/Conservation/CESA.

Response to comment 2: Thank you for your comment. Caltrans biologists did not see foothill yellow-legged frogs during any of the multiple field visits to the project area. The Main Fork of the Mokelumne River in the project area provides most of the features and characteristics required for good breeding habitat for foothill yellow-legged frogs. The regulating dam upstream at the Electra powerhouse, which the Pacific Gas and Electric Company operates, is used to manage water flows actively throughout the day. Foothill yellow-legged frog egg masses are negatively affected by abrupt changes in water flow, depth, and temperature, all of which are associated with daily human-caused fluctuations in water flow. Caltrans' biology staff has determined that the potential for this segment of the Mokelumne River to support successful foothill yellow-legged frog breeding is very low. Based on the lack of recently reported occurrences of foothill yellow-legged frogs in the Main Fork of the Mokelumne River, and considering the demonstrated impacts of abrupt water flow and level fluctuations, Caltrans' biology staff believe that the potential to encounter foothill yellow-legged frogs is low.

Comment 3:

- 3. CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.p

df. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp

Response to comment 3: Thank you for your comment. Field studies were timed to coincide with the growing season and took place between August 2018 and July 2019. No special-status species tracked by the California Natural Diversity Database were recorded within the project limits during these studies.

Comment 4:

- 4. Potential habitat for nesting birds and birds of prey is present within the project area. Fish & G. Code sections 3503, 3503.5 and 3800 provide for protection to nongame birds, birds of prey, their nests and eggs. Page #31 of the ND states that monitoring will occur during activities that may cause nest abandonment or “forced fledging” which may be considered a significant impact. The proposed Project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the Project Area. Additional avoidance, minimization, and/or mitigation measures to address nesting birds should be included beyond only monitoring for detection. Measures to avoid the impacts should include but not be limited to: species specific work windows, phased work schedules for avoidance in the event nesting occurs within the project area, installation of noise attenuation or visual barriers, and/or no disturbance buffer zones identified appropriately by a qualified biologist.

Response to comment 4: Thank you for your comment. We noted in our Natural Environment Study that the project impact area contains suitable nesting habitat for migratory birds and raptors. We also noted that migratory birds and/or raptors may attempt to nest in appropriate habitat during the active nesting season—between February 1 and September 30. Also, swallow nests were seen on the soffit of the concrete overhangs of the Mokelumne River Bridge structure. Caltrans’ biology staff determined that the potential to encounter migratory birds and/or raptors in the project area during the active nesting season is high. With the incorporation of standard bird protection measures into the construction contract, construction activities associated with this project are not expected to result in the “take” of migratory birds or raptors, or their nests, as defined by the Migratory Bird Treaty Act.

Comment 5:

- 5. As discussed in the ND on page #27, CDFW will likely require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, for any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank of a river, stream or

lake, or use material from a streambed. Issuance of an LSAA is subject to the California Environmental Quality Act (CEQA). CDFW, as a responsible agency under CEQA, will consider the MND for the project. To obtain information about the LSAA notification process, please access our website at http://www.dfg.ca.gov/habcon/1600/

If you should have any questions pertaining to these comments, please contact me at Suzanne.Gilmore@wildlife.ca.gov

Suzanne Gilmore
Senior Environmental Scientist Specialist
CDFW, North Central Region (2)

Response to comment 5: Thank you for your comment. As noted in Chapter 1 of this document, we expect to apply for a Lake or Streambed Alteration Agreement for this project. After a thorough review of the project with standard measures incorporated as project features, Caltrans, as CEQA Lead Agency, did not find any significant impacts that would arise as a result of this project. In that capacity, Caltrans has determined the project will be processed as a Negative Declaration—not the Mitigated Negative Declaration you mentioned in your comment—toward the end of the design phase.

Comment from: California Department of Forestry and Fire Protection

Comment 1:

From: Withrow, Robert@CALFIRE <Robert.Withrow@fire.ca.gov>
Sent: Friday, May 1, 2020 10:41 AM
To: Pheng, Sinarath@DOT <sinarath.pheng@dot.ca.gov>
Subject: Re: 0X752 Mok River Bridge Rail Upgrade Webex Focus Meeting

My apologies, but I have to leave the meeting.

My concerns are two fold:

- 1) We need to ensure emergency vehicle access across the bridge is not delayed, as Hwy 49 is a main travel route for us to move emergency apparatus north and south. Not to mention that we do have significant fire history in that area including the 2015 Butte Fire. CAL FIRE commonly shares resources between Calaveras and Amador Counties. Please keep in mind that an alternate route is not really an option for this area either…

Response to comment 1: Thank you for your comment. Caltrans has been and will continue to be in direct contact with the California Department of Forestry and Fire Protection. We work with emergency response agencies on all our highway jobs. Caltrans produces a traffic management plan for every project it undertakes, including this one. The traffic management plan is a living document. It starts in the earlier stages of the project as a general discussion of the existing infrastructure in the project area and what type of traffic control is likely to be undertaken during the project. As planning, design, and public comment continue, the traffic management plan will evolve as well, gaining specificity and detail.

During our meeting on May 1, 2020, Vu Nguyen, head of Traffic Operations, and Quan Trinh of Traffic Planning, were available to discuss traffic and congestion concerns in some detail. Quan Trinh was able to assure all interested parties that traffic modeling shows that project queue time will average 3 to 4 minutes during the duration of the project. Vu Nguyen was able to assure interested parties that Caltrans will provide an actuated signal, as requested, that will manage traffic during the nighttime and low traffic periods during the day and will be increased by flaggers. Caltrans has agreed to look into the availability of an emergency override for first responder vehicles using State Route 49 when flaggers are not present.

Additionally, participants agreed to meet for a workshop organized by Caltrans during the design phase (in six to eight months) to further discuss these concerns.

Comment 2:

- 2) During Fire Season, May to November (generally), there is always a potential to use this for an evacuation route.

Response to comment 2: Thank you for your comment. Caltrans will provide an actuated signal, as requested, that will manage traffic during the nighttime and low traffic periods during the day and will be increased by flaggers. Caltrans has agreed to look into the availability of an emergency override for first responder vehicles using State Route 49 when flaggers are not present.

Caltrans is responsible for multiple construction projects in high fire danger areas every year. We have developed and maintain excellent working relationships with our first responder partners. Our resident engineers and our contractors understand the urgent need for emergency vehicles to travel through our construction zones safely and promptly. They have experience doing that using flaggers, empty lanes, and any other tools at their disposal.

Appendix C List of Preparers

This document was prepared by the following Caltrans Central Region staff:

Allam Alhabaly, Transportation Engineer. B.S., School of Engineering, California State University, Fresno; 17 years of experience in environmental technical studies with emphasis on noise studies. Contribution: Preparation of air, noise, and water technical studies.

Jaycee Azevedo, Senior Environmental Planner. A.S., Computer Software Applications, Heald College; 7 years of environmental planning experience. Contribution: Senior review of the Initial Study.

Janet Bailey, Associate Environmental Planner. B.S., Business Administration, California State University, Fresno; 11 years of experience at Caltrans. Contribution: Preparation of the Initial Study.

Myles Barker, Editorial Specialist. B.A., Mass Communication and Journalism, California State University, Fresno; 5 years of writing and editing experience. Contribution: Technical Editor.

Juliana Bartel, Environmental Planner. B.A., Anthropology, University of California, Davis Co-Principal Investigator Prehistoric Archaeology; 4 years of professional archaeological experience, including 1 year with Caltrans. Contribution: Preparation of the Archaeological Survey Report.

Raymond Benson, Associate Environmental Planner (Archaeology). M.A., Cultural Resources Management, Sonoma State University; B.A., Anthropology, Minor in Geography, Humboldt State University; more than 25 years of archaeology and 20 years of cultural resources management experience. Contribution: Principal Investigator, Prehistoric and Historic Archaeology, preparation of the Archaeological Survey Report.

Jon L. Brady, Associate Environmental Planner/Architectural Historian. M.A., History, California State University, Fresno; B.A., Political Science and Anthropology; more than 30 years of experience as a consulting archaeologist and historian. Contribution: Preparation of the Historical Properties Survey Report

Benjamin Broyles, Senior Environmental Planner. B.A., Anthropology, University of California, Santa Cruz; 18 years of cultural resources management experience. Contribution: Senior review of cultural studies.

Laura Cook, Associate Environmental Planner. M.A., Archaeology and Heritage, University of Leicester, United Kingdom. PQS: Co-Principal Investigator, Prehistoric/Historical Archaeology; 10 years professional archaeological experience, including 2 years with Caltrans. Contribution: Finding of No Adverse Effect, Environmentally Sensitive Areas Action Plan.

Brian G. Denham, Associate Environmental Planner. M.A., Cultural Resources Management, Sonoma State University; 12 years of experience. Contribution: GIS mapping and preparation of the Archaeological Survey Report.

James Henke, Senior Environmental Planner (Biologist). B.S., Wildlife Biology, Humboldt State University; more than 20 years of biological sciences and permitting experience. Contribution: Biology oversight.

Jason Meigs, Associate Environmental Planner (Natural Sciences). B.A., Environmental Studies, Minor in Biological Sciences, California State University, Sacramento; more than 20 years of environmental planning and biological sciences experience. Contribution: Preparation of the Natural Environment Study – Minimal Impacts.

G. William “Trais” Norris, III, Associate Environmental Planner. B.S., Urban Regional Planning, California State Polytechnic University, Pomona; 18 years of land use, housing, redevelopment, and environmental planning experience. Contribution: Quality Assurance/Quality Control content review of the Initial Study.

Ken J. Romero, Senior Transportation Engineer. B.S., Civil Engineering, California State University, Fresno; 13 years of environmental technical studies experience. Contribution: Senior review of air, noise, and water studies.

Michaela Shelton, Environmental Planner. B.A., Environmental Studies, University of California, Santa Cruz; 1 year of environmental planning experience. Contribution: Preparation of the Initial Study.

Harvey Tran, Associate Environmental Planner (Natural Sciences). M.A., Biological Sciences - Ecology focus, San Jose State University; more than 10 years of environmental planning and biological sciences experience. Contribution: Assistance in biological studies and peer review of biological reports.

Philip Vallejo, Supervising Environmental Planner. B.A., History, California State University, Fresno; 11 years of experience in architectural history field. Contribution: Approval of the Initial Study.

Divine Yang, Environmental Planner. B.S., Pharmaceutical Chemistry, University of California, Davis; 1 year of environmental planning experience. Contribution: Preparation of the Initial Study.

Appendix D Distribution List

State Clearinghouse

California Department of Fish and Wildlife (North Central-Region 2)

Amador Council of Governments

Calaveras Council of Governments

California Highway Patrol (Valley Division Sacramento-201)

Pacific Gas and Electric Company

East Bay Municipal Utility District

Foothill Conservancy

American Whitewater

California Natural Resources Agency

Loma Prieta Paddlers

California Department of Forestry and Fire Protection Pine Grove Station

Appendix E Avoidance, Minimization, and/or Mitigation Summary

To ensure that all environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated in the proposed Environmental Commitments Record that follows) would be implemented. During project design, avoidance, minimization, mitigation, and/or standard measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in the Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable.

Note: Some measures may apply to more than one resource area. Duplicated or redundant measures have not been included in this Environmental Commitments Record.

Standard Measures

AQ-1: The construction contractor must comply with Caltrans' Standard Specifications regarding Air Quality in Section 14.

AQ-2: The construction contractor must comply with Caltrans' Standard Specifications regarding Dust Control in Section 10-5.

BIO-1: Restore and Revegetate Temporarily Disturbed Areas Onsite: All temporary fills will be removed from the project area. Disturbed areas within the construction limits will be graded to minimize surface erosion and siltation into receiving waters. Disturbed areas will be recontoured to as close to the pre-project condition as possible and will be stabilized as soon as feasible—no later than October 15 of each construction season—to avoid erosion during subsequent storms and runoff. Permanent erosion control seeding will be performed at all disturbed sites by hydroseeding throughout construction. All sites will be seeded by the completion of construction activities.

BIO-6: Weed-Free Construction Equipment and Vehicles: To minimize the potential for the transport of weed propagules to the action area from sources outside of the project area, construction equipment and vehicles are recommended to be cleaned and washed at the contractor's facilities before arriving at the construction site. Any vehicle or equipment cleaning that occurs onsite during construction activities will conform with Caltrans' 2018 Standard Specifications or any Special Conditions under Section 13-4.03E(3) and NS-08 (Vehicle and Equipment Cleaning) of the Caltrans 2017

Construction Site Best Management Practices Manual. The manual requires the contractor to contain and dispose of any waste resulting from vehicle or equipment cleaning.

BIO-7: Equipment and Materials Storage, Staging, and Use in Weed-Free Areas: To minimize the potential for spreading weed propagules originating from within the project study limits, staging and storage of equipment should only be done in weed-free areas. Infestations of noxious and/or highly invasive weeds were mapped as part of the project planning effort to determine if hand, mechanical, or chemical eradication treatments are feasible, or if it is feasible to exclude these areas from the contractor's use. Environmentally Sensitive Areas Provisions Section 14-1.02 of the Caltrans 2018 Standard Specifications or Special Provisions may be used to specify areas restricted from contractor's use.

Dense stands of Scotch broom occur next to the north side of the Big Bar vehicle access and parking lot on the south side of the Mokelumne River west of the Mokelumne River Bridge. Also, the areas proposed for use as equipment staging areas and person-lift access to the southwest side of the Mokelumne River Bridge are occupied by Scotch broom, tree of heaven, yellow star thistle, and Italian plumeless thistle.

It is highly recommended that the staging/storage area on the southwest side of the Mokelumne River Bridge be dropped from consideration. Scotch broom is spread mainly by prolific seed dispersal, and seeds may be viable for up to 80 years. Preventing the use of vehicles and equipment in areas infested by Scotch broom and tree of heaven would prevent or reduce the potential to spread these species. Long-term control of Scotch broom and tree of heaven within the project action area is beyond the purpose and scope of the project. The use of herbicides for weed control activities within the stream zone would be discouraged.

BIO-8: Weed Control During Construction: To minimize the potential for spreading weed propagules that originate from within the project action area during construction activities, including initial vegetation clearing and clearing onsite revegetation areas, weed control would be accomplished in accordance with Caltrans' 2018 Standard Specifications or Special Provisions under Section 20-1.03C(3). Special Provisions may be required to address the removal or control of Scotch broom and tree of heaven from project construction areas, including the staging/storage area on the southwest side of the Mokelumne River Bridge.

BIO-9: Weed-Free Erosion Control and Revegetation Treatments: To minimize the risk of introducing weed propagules to the action area from sources outside of the project area, only locally adapted plant species appropriate for the project area will be used in any erosion control or revegetation seed mix or stock. A Caltrans biologist will consult with a

Caltrans landscape architect to develop appropriate seed and planting palettes for use in revegetation and/or erosion control applications. Any compost, mulch, tackifier, fiber, straw, duff, topsoil, erosion control products, or seed must meet Caltrans' 2018 Standard Specification or any Special Provisions under Section 21-2.02 for these materials. Any hydroseed used for revegetation activities must also be certified weed-free per Caltrans 2018 Standard Specifications Section 21-2.02F.

BIO-13: Migratory Birds and Raptors - Remove Nesting Habitat During Non-Nesting Season: While performing structure work on the Mokelumne River Bridge, woody vegetation removal or other construction activities within nesting bird habitat during the non-nesting season—between October 1 and January 31—would not require pre-construction surveys or the use of nest-exclusion devices for migratory birds.

BIO-14: Migratory Birds and Raptors - Exclusionary Devices: If work potentially interfering with bird nesting sites is proposed or is likely to occur between February 1 and September 30, devices such as netting or other means may be used to block access to bird nesting sites where work will be performed. Exclusionary devices must be installed after September 30 but before February 1 of any construction season. Exclusionary devices may be installed during the nesting season in areas not occupied by nesting birds, as determined by a designated biologist. Exclusionary devices will be maintained and left in place between February 1 and September 30 of any construction season. Exclusionary devices for migratory birds may be removed when a designated biologist determines that work will not interfere with bird nesting sites or until all construction activities in bird nesting areas are completed. Exclusionary devices for migratory birds will be specified under Caltrans' 2018 Standard Specification and/or Standard Special Provisions under Section 14-6.03A (Species Protection) and/or 14-6.03(B) (Bird Protection).

BIO-15: Migratory Birds and Raptors - Pre-Construction Surveys During Nesting Season: If woody vegetation removal, structure construction, ground-disturbing activities, or other project-related activities are scheduled during the nesting season of protected raptors and migratory birds—February 1 to September 30—a designated biologist will conduct a focused survey for active nests of such birds within 15 days before the start of project-related activities. If active nests are found, a protective no-work buffer will be established (see BIO-16). Caltrans will also consult with the U.S. Fish and Wildlife Service regarding appropriate actions to take to comply with the Migratory Bird Treaty Act of 1918 and with the California Department of Fish and Wildlife to comply with provisions of the California Fish and Game Code. If a lapse in project-related work of 15 days or longer occurs, another survey and, if required, consultation with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife will be required before the work can start again.

Pre-construction surveys for nesting migratory birds and raptors will be specified under Caltrans' 2018 Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection) and/or 14-6.03(B) (Bird Protection).

BIO-16: Migratory Birds and Raptors - Protective Buffers: If a designated biologist detects nesting migratory birds or nesting raptors during the pre-construction survey, an appropriate no-work buffer will need to be established around the nest. No work will start within the buffer until the Caltrans Resident Engineer receives authorization. Appropriate no-work buffer distances for specific bird species are listed below.

Stop all work within a 100-foot radius of any active migratory bird nest, except as noted below:

- Recommended species protective buffer radius for raptors is 300 feet.
- Recommended species protective buffer radius for other migratory birds is 100 feet.

Protective buffer radii for nesting migratory birds and raptors will be specified under Caltrans' 2018 Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection) and/or 14-6.03(B) (Bird Protection).

BIO-18: Construction Site Best Management Practices: During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to designated construction staging areas, and all operations will be confined to the minimal area necessary.

- Project-related vehicle traffic will be restricted to established roads and construction areas. Project vehicles will observe a 20-mile-per-hour speed limit while in the action area.
- Dust control measures will be implemented if necessary.
- Plastic monofilament netting (erosion control matting) or similar material will not be used at the project site. Acceptable substitutes include coconut coir matting or hydroseeding tackifier compounds.
- Use of rodenticides and herbicides, including fumigation, the use of poison bait, or other means of poisoning nuisance animals in project areas will be restricted.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.
- No firearms will be allowed on the project site.
- Pets, such as dogs or cats, will not be allowed on the project site.

CR-1: If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

CR-2: If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities will stop in any area or nearby area suspected to overlie remains, and the county coroner must be contacted. If the coroner thinks the remains are Native American, the coroner will notify the Native American Heritage Commission, who, per Public Resources Code Section 5097.98, will then notify the Most Likely Descendant. At this time, the person who discovered the remains will contact Caltrans archaeologists so that they may work with the Most Likely Descendant on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

HAZ-1: Lead Compliance Plan: A lead compliance plan will be prepared under Section 7-1.02K(6)(j)(iii) of Caltrans' Standard Specifications. The lead compliance plan will include provisions regarding use of earth material.

HAZ-2: Lead-Based Paint Abatement: Painted surfaces such as railings and graffiti abatement may be present on the bridge. A project-specific survey for lead-based paint will be conducted before construction activities start. If the scope of work changes, or additional information is required regarding hazardous waste issues, please contact Jonathan Schlee by phone at 209-942-6011, or by email at Jonathan.Schlee@dot.ca.gov.

HAZ-3: Asbestos-Containing Material Abatement: Asbestos-containing materials are known to occur in bridge bearing pads, shims, mastic material, and/or concrete. The scope of work for this project will require a major renovation of the existing bridge. Therefore, a project-specific survey for asbestos-containing materials will be conducted before construction activities start.

NOI-1: Construction noise is regulated by Caltrans Standard Specifications Section 14-8.02 "Noise Control," which states that noise levels generated during construction will comply with applicable local, state, and federal regulations. It also states that all equipment will be fitted with adequate mufflers according to the manufacturers' specifications.

NOI-2: All equipment will have sound-control devices that are just as effective as those provided on the original equipment. No equipment will have an unmuffled exhaust.

NOI-3: As directed by Caltrans, the contractor will implement appropriate additional noise minimization measures, including changing the location of

stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying nearby residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

TRA-1: A Transportation Management Plan will be prepared for the project.

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

WQ-2: Before starting any ground-disturbing activities, the contractor will be required to prepare a Water Pollution Control Program or Stormwater Pollution Prevention Plan (per the Construction General Permit Order 2009-0009-DWQ) that includes erosion-control measures and construction waste containment measures so that waters of the State of California are protected during and after project construction.

WQ-3: Containment Measures/Construction Site Best Management Practices: To contain construction-related material, prevent debris and pollutants from entering receiving waters, and reduce the potential for discharge to receiving waters, the contractor will follow all applicable guidelines and requirements in Section 13 of the Caltrans 2018 Standard Specifications. The contractor could also follow applicable guidelines and requirements in Special Provisions in Section 13 regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water. Caltrans staff and the contractor are required to perform routine inspections of the construction area to verify that field Best Management Practices are properly implemented, maintained, and operating effectively and as designed.

The project design team may specify “Best Management Practices” to be used during construction in addition to, or in place of, other temporary measures selected by the contractor. Project-specific “Best Management Practices” will address (among other things):

- Spill Prevention and Control *(Caltrans 2017 Best Management Practices Manual WM-4)*
- Material Management (Material Delivery, Use, Storage, and Stockpiles; *Caltrans* 2017 *Best Management Practices Manual WM-1 through WM-4)*
- Waste Management (Solid, Hazardous, Concrete, Sanitary/Septic Wastes, Contaminated Soils; *Caltrans 2017 Best Management Practices Manual W-M5 through WM-10)*
- Vehicle and Equipment Cleaning, Fueling, and Maintenance *(Caltrans 2017 Best Management Practices Manual NS-8 through NS-10)*

- Material and Equipment Use Over Water *(Caltrans 2017 Best Management Practices Manual NS-13)*
- Structure Removal Over or Adjacent to Water *(Caltrans 2017 Best Management Practices Manual NS-15)*
- Paving, Sealing, Sawing, Grooving, and Grinding Activities *(Caltrans 2017 Best Management Practices Manual NS-3)*
- Concrete Curing and Finishing *(Caltrans 2017 Best Management Practices Manual NS-12)*
- Temporary Soil Stabilization *(Caltrans 2017 Best Management Practices Manual SS-1 through SS-10)*
- Temporary Sediment Control *(Caltrans 2017 Best Management Practices Manual SC-1 through SC-10)*
- Temporary Tracking Control *(Caltrans 2017 Best Management Practices Manual TC-1 through TC-3)*
- Temporary Concrete Washouts *(Caltrans 2017 Best Management Practices Manual WM-8)*
- Illicit Connection/Illegal Discharge Detection and Reporting *(Caltrans 2017 Best Management Practices Manual NS-6)*
- Stormwater Pollution Prevention Plan and Water Pollution Control Program Preparation Manual (Caltrans, 2011)
- Construction Site Best Management Practices Manual (Caltrans, 2017)
- Construction Site Monitoring Program Manual (Caltrans, 2013)

WQ-4: Cast-in-place concrete structures should have enough time to cure before the rainy season.

WQ-5: A concrete-treated permeable base should not be used as permeable material for underdrain systems that discharge to waterways.

WQ-6: Some of the work areas could be within the 100-year floodplain zone. All materials (e.g., rock, geotextile fabric) used to stabilize temporary access routes will be removed when construction is completed.

WQ-7: The project will incorporate pollution prevention and design measures consistent with the 2015 Caltrans Stormwater Management Plan (Caltrans 2015) to meet water quality objectives. The plan has been revised to comply with the requirements of the Caltrans Statewide National Pollution Discharge Elimination System Permit (Order 2012-0011-DWQ). In addition to the Best Management Practices already included, the following permanent stormwater treatment Best Management Practices should be considered where feasible:

- Energy dissipation devices (e.g., rock slope protection, check dams)

- Bioengineered streambank stabilization methods (e.g., willow wattles, brush layering)

WQ-8: Environmentally sensitive areas would be designated and clearly delineated on the contract plans during the design phase to avoid potential discharges and unauthorized disturbances to the creeks, streams, channels and protected riparian areas.

Avoidance and Minimization Measures

Parks and Recreation

PAR-1: Limiting contractor access to the riverbank on the south side of the river to maintain launch and take-out access for recreational users. The contractor will not conduct construction activities outside the Caltrans right-of-way limit, shown in Figure 4-2.

PAR-2: Building high visibility, environmentally sensitive area fencing to make the limits of the construction zone clear to the public and the contractor.

PAR-3: Adding a unit to normal environmental training to remind construction staff of the likelihood of the public occupying areas immediately next to the active construction zone.

PAR-4: Providing a flagger during periods where the movement of construction material and equipment into or out of the staging area may delay public access to the Big Bar Recreation Area.

PAR-5: Requiring the contractor to avoid parking or idling construction vehicles in the recreation area parking lot.

PAR-6: Prohibiting the contractor from placing construction equipment or materials in the parking lot.

PAR-7: The contractor would not be allowed to use the paved area to stage construction equipment or activities.

Cultural Resources

CR-3: Establish Environmentally Sensitive Areas: Additional direct and indirect impacts on sensitive cultural resources throughout the project area will be avoided or minimized by designating these features outside of the construction impact area as “environmentally sensitive areas.” Information on environmentally sensitive areas will be shown on contract plans and discussed in the Special Provisions. The provisions may include but are not limited to, the use of temporary orange fencing to identify the limit of work in areas next to sensitive resources or to locate and exclude sensitive resources from potential construction impacts. Contractor encroachment into the

environmentally sensitive areas will not be allowed, including the staging/operation of heavy equipment, or casting of excavated materials. The provisions will be implemented as the first order of work and remain in place until all construction activities are complete.

CR-4: Cultural Monitoring: To ensure that project activities do not change or result in an adverse effect, Caltrans will ensure that a Caltrans principal architectural historian will review all construction and design plans as developed, and monitor construction activities associated with the Mokelumne River Bridge Upgrade project.

CR-5: Should any significant changes that have the potential to impact the site in an adverse manner be made to the plans before or during construction activities, the State Historic Preservation Officer will be notified immediately. Additional documentation, as appropriate, will be completed to assess the impacts of said changes.

Waters of the U.S. – Other Waters

BIO-2: Environmentally Sensitive Area Designation: Additional direct and indirect impacts to sensitive biological resources throughout the project area would be avoided or minimized by designating “environmentally sensitive areas.” All areas outside of the construction footprint will be considered as environmentally sensitive areas, as well as any areas determined by a qualified biologist during project planning or during pre-construction surveys to qualify for environmentally sensitive area designation.

Environmentally sensitive area information will be shown on contract plans and discussed in Section 14-1.02 of the Caltrans 2018 Standard Specifications or any Special Provisions in Section 14-1.02. Environmentally sensitive area provisions may include but are not limited to, the use of temporary orange fencing or other high-visibility marking to identify the limit of work in areas next to sensitive resources or to locate and exclude sensitive resources from potential construction impacts. Contractor encroachment into environmentally sensitive areas will not be allowed. If someone violates this provision, work will stop, and the Caltrans resident engineer will be notified immediately. Environmentally sensitive area provisions will be implemented as the first order of work and remain in place until all construction activities are completed.

BIO-3: Designated Biologist: A designated biologist or biologists will be onsite during any activities that have the potential to affect sensitive biological resources. The designated biologist will monitor regulated species and habitats, ensure that construction activities do not result in the unintended take of regulated species or disturbances to regulated habitats, and ensure that construction activities comply with any permits, licenses, agreements, or contracts. The designated biologist will also immediately notify the Caltrans

resident engineer of any take of regulated species, disturbances to regulated habitats, or breaches of environmentally sensitive areas, and prepare, sign, and submit notifications and reports. A designated biologist who performs specialized activities must have demonstrated field experience working with the regulated species or performing specialized tasks. Regulatory agency approval will also be required before Caltrans accepts the designated biologist.

The designated biologists for the project may be “Department-supplied” biologists—Caltrans biologists or consultant biologists under Task Order contracts to Caltrans—or may be “contractor-supplied” biologists. If contractor-supplied biologists are used as designated biologists, contractor-supplied biologist provisions will be discussed in Section 14-6.03D(1-3) of the Caltrans 2018 Standard Specifications or any Special Provisions in Section 14-6.03D(1-3) that will specify contractor-supplied biologist qualifications, responsibilities, and submittals. Regulatory agency approval will be required before Caltrans accepts a contractor-supplied biologist. Before project construction, the contractor-supplied biologist will prepare a Natural Resources Protection Program within seven days of contract approval per Standard or Special Provisions under Section 14-6.03D(2) of the Caltrans 2018 Standard Specifications. The Natural Resources Protection Program will describe the measures and schedules for protecting biological resources. Caltrans must approve regulatory compliance before construction activities start.

BIO-4: Limited Operation Period – Stream Zone Construction Activities: Construction activities that occur below the top of the bank of the Mokelumne River within the project action area will occur between June 1 and October 15 of any construction season, unless earlier or later dates for in-channel construction activities are approved by the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and Central Valley Regional Water Quality Control Board. By requiring contractors to stick to these dates for stream-zone construction, the project proponent will minimize project effects to receiving waters.

BIO-5: Worker Environmental Awareness Training for Construction Personnel: Before any work occurs in the project area, a qualified designated biologist, who is familiar with the resources to be protected, will conduct a mandatory contractor/worker environmental awareness training for construction personnel. The awareness training will be provided to all construction personnel, including contractors and subcontractors, to brief them on the need to avoid and minimize effects to sensitive biological resources within and next to construction areas. Some examples of sensitive biological resources include jurisdictional wetlands and other waters, threatened and endangered species, other special-status species, roosting bats, and nesting birds. The awareness training will also brief construction personnel on the penalties for not complying with applicable state and federal

laws and permit requirements. The designated biologist will inform all construction personnel about the life history and habitat requirements of special-status habitats and species known to occur or that have the potential to occur onsite, the importance of maintaining habitats, and the terms and conditions of regulatory requirements.

The worker environmental awareness training will also cover general restrictions and guidelines that all construction personnel must follow to reduce or avoid effects on sensitive biological resources during project construction. The training will include identifying the Best Management Practices written into construction specifications for avoiding and minimizing the discharge of construction materials or other contaminants into jurisdictional waters.

Worker environmental awareness training will be required for any construction personnel intending to enter the construction zone for more than 15 minutes. Any designated biologists conducting worker environmental awareness training must meet the qualifications of regulatory agencies. Copies of training sign-in sheets for construction personnel will be provided to regulatory agencies upon request.

If a contractor-supplied biologist is used, they will prepare and submit copies of the worker environmental awareness training and any associated training materials for Caltrans' review and approval before construction activities start. This complies with Special Provisions of the Caltrans 2018 Standard Specifications under Section 14-6.03(D) "Biological Resource Information Program." Caltrans will accept a Biological Resource Information Program submittal only if it complies with all regulatory provisions.

Waters of the State of California—Riparian and Non-Riparian

BIO-2: Environmentally Sensitive Area Designation

BIO-3: Designated Biologist

BIO-4: Limited Operation Period – Stream Zone Construction Activities

BIO-5: Worker Environmental Awareness Training for Construction Personnel

Wild and Scenic Rivers

BIO-2: Environmentally Sensitive Area Designation

BIO-3: Designated Biologist

BIO-4: Limited Operation Period – Stream Zone Construction Activities

BIO-5: Worker Environmental Awareness Training for Construction Personnel

Animal Species

BIO-2: Environmentally Sensitive Area Designation

BIO-3: Designated Biologist

BIO-4: Limited Operation Period – Stream Zone Construction Activities

BIO-5: Worker Environmental Awareness Training for Construction Personnel

BIO-10: Foothill Yellow-Legged Frog and Western Pond Turtle Pre-Construction Surveys: A qualified designated biologist will conduct pre-construction surveys for the foothill yellow-legged frog and western pond turtle no more than 24 hours before any construction activities start below the top of the bank of the Mokelumne River. The qualified biologist will conduct the pre-construction surveys using California Department of Fish and Wildlife-approved survey protocols.

These surveys will consist of walking the project limits and accessible areas within at least 50 feet of the project limits. The biologist(s) will investigate all potential foothill yellow-legged frog and western pond turtle cover sites. This includes a thorough investigation of mammal burrows, appropriately sized soil cracks, loose rocks, and debris. Native vertebrates found in the cover sites will be documented and, if appropriate, relocated to an adequate cover site in the action area vicinity. The entrances and other refuge features within the project limits will be collapsed or removed following investigation and clearance.

BIO-11: Foothill Yellow-Legged Frog and Western Pond Turtle Construction Monitoring: A qualified designated biologist will be present during all construction-related activities that may affect the foothill yellow-legged frog, western pond turtle, or their habitat. The qualified designated biologist will have the authority to stop work through coordination with the Caltrans Resident Engineer or onsite project manager if a foothill yellow-legged frog or western pond turtle is seen in the project footprint. The Caltrans Resident Engineer or onsite project manager will ensure construction activities remain suspended in any area where the qualified designated biologist has determined that take of the foothill yellow-legged frog or western pond turtle could potentially occur. Work will resume once the species leaves the site on its own, or once it is determined that construction activities are not harassing or putting the species in danger. The California Department of Fish and Wildlife will be contacted within 24 hours if a foothill yellow-legged frog or western pond turtle is detected during construction stage surveys.

To prevent accidentally trapping a foothill yellow-legged frog or western pond turtle during construction, all excavated, steep-walled holes or trenches more than 6 inches deep will be covered at the end of each working day with plywood or similar material. At the start of each working day and before such

holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time, a trapped native amphibian or reptile is discovered in these situations, a qualified designated biologist will have the authority to stop activities in these locations through coordination with the resident engineer or onsite project manager. A qualified designated biologist will then place escape ramps or other appropriate structures to allow the animal to escape. Work will resume once the animal leaves the site on its own, or once it is determined that construction activities are not harassing or putting the species in danger. The California Department of Fish and Wildlife will be contacted within 24 hours if a foothill yellow-legged frog or western pond turtle is detected during construction stage surveys.

New sightings of a foothill yellow-legged frog or western pond turtle seen during pre-construction surveys or construction monitoring will be reported to the California Natural Diversity Database.

BIO-12: Daily Limited Operation Period – Daytime Construction: Construction activities will be limited to daytime hours between within one-half hour of sunrise and within one-half hour of sunset during each construction day. Daytime work will avoid or minimize adverse effects on potential bat night-roost sites. Daytime work will avoid using artificial lighting that may have adverse effects on nocturnal wildlife, including birds, insects, turtles, fishes, amphibians, bats, and other species. Special Provisions under Section 10-1.03 of the Caltrans 2018 Standard Specifications (Time Constraints) will be used to specify any time constraints for specific construction activities.

BIO-17: Migratory Birds and Raptors – Construction Monitoring: If construction or other project-related activities that may potentially cause nest destruction, nest abandonment, or forced fledging of migratory birds are necessary, a qualified designated biologist will be required to monitor the nest site. This is to ensure that protective radii and any exclusionary devices are in good working condition.

Greenhouse Gas Emissions

GHG-1: Reduce construction waste and maximize the use of recycled materials wherever possible.

GHG-2: Incorporate measures to reduce the use of drinking water.

GHG-3: Encourage improved fuel efficiency of construction equipment by properly tuning and maintaining equipment and using the right size equipment for the job.

GHG-4: Enhance the environmental training provided for contractor staff by adding a module on greenhouse gas reduction strategies, including limiting equipment idling time as much as possible.

GHG-5: Caltrans Standard Specification 14-9.02, Air Pollution Control, requires contractors to comply with all air-pollution control rules, regulations, ordinances, and statutes. Measures that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

List of Technical Studies

Air Quality Memorandum (August 2019)

Air Quality Conformity Checklist (August 2019)

Noise Memorandum (August 2019)

Water Quality Memorandum (August 2019)

Natural Environment Study—Minimal Impacts (August 2019)

Location Hydraulic Study (October 2016)

Historical Property Survey Report (August 2019)

- Archaeological Survey Report (August 2019)

Hazardous Waste—Initial Site Assessment (August 2019)

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to the following email address: District10PublicAffairs@dot.ca.gov

Please indicate the project name and project identifying code (under the project name on the cover of this document) and specify the technical report or document you would like a copy of. Provide your name and email address or U.S. postal service mailing address (street address, city, state and zip code).