

State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project

SACRAMENTO COUNTY, CALIFORNIA
DISTRICT 3 – SAC – 99 (PM 7.36/8.4)
0F280/0312000069

Initial Study with Mitigated Negative Declaration



Prepared by the
State of California Department of Transportation



January 2015

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INITIAL STUDY with Proposed Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation

8/1/2014
Date of Approval


John D. Webb, Chief
North Region Environmental Services
California Department of Transportation

MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) will seismically retrofit four bridges, the Cosumnes River Bridges (24-0020R/L) and the Cosumnes River Overflow Bridges (24-0021R/L), by installing catcher/restrainer systems at the expansion joints.

On Dillard Road Overcrossing (24-0163) non-standard bridge railings will be replaced on both sides of the bridge, remove asphalt concrete (AC) surfacing, sidewalk/curb, and place polyester concrete deck overlay.

On Cosumnes River (24-0020L) and Cosumnes River Overflow (24-0021L) Bridges, the project will widen shoulders to conform to adjacent roadway sections, replace approach slabs, replace approach/transition railings, replace nonstandard bridge railings, remove AC surfacing, and place polyester concrete deck overlay.

On Cosumnes River Bridge (24-0020L) the footing at pier 7 will be retrofitted to remediate scour that is occurring at the bottom of the pier. The existing footing will be enlarged and additional piling will be added around the existing footing and the new piles, and existing footing, will be encased in a larger steel-reinforced-concrete footing.

Determination

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

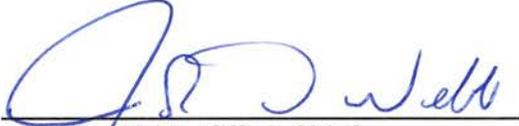
The project will have no effect on: the coastal zone, emergency services, wild and scenic rivers, relocations and real property, acquisition, growth, pedestrian and bicycle facilities, farmlands/timberlands, geology/soils/topography/mineral resources, paleontology, invasive species, community impacts and environmental justice, land use and planning, public services, parks and recreation facilities, cultural resources.

In addition, the project will have less than significant effects to utilities, air quality, noise levels, worker exposure to hazardous wastes, visual resources, and water quality.

With the following mitigation measures incorporated, the project will have less than significant effects to: Valley Elderberry Longhorn Beetle (VELB), Central Valley Steelhead, Essential Fish Habitat, and Waters of the United States.

- The removal of elderberry shrubs, the habitat for VELB, will be mitigated through the purchase of credits from a US Fish and Wildlife Service approved mitigation bank.
- The permanent fill that will be placed in Essential Fish Habitat, the habitat for Central Valley Steelhead, will be mitigated through the purchase of credits from a National Marine Fisheries Service approved mitigation bank.

- Permanent impacts to Waters of the United States will be mitigated through the purchase of credits from an agency approved mitigation bank and/or through the United States Army Corps of Engineers "in-lieu-fee" mitigation process.



John D. Webb, Office Chief
North Region Environmental Services, South
California Department of Transportation

January 9, 2015
Date

Table of Contents

Chapter 1	Proposed Project	1
	Purpose and Need.....	4
	Project Description.....	4
	Project Alternatives.....	10
Chapter 2	Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures	12
	Human Environment	13
	UTILITIES.....	13
	TRAFFIC AND TRANSPORTATION.....	14
	VISUAL/AESTHETICS.....	15
	CULTURAL RESOURCES.....	17
	Physical Environment	20
	HYDROLOGY AND FLOODPLAIN.....	20
	WATER QUALITY AND STORM WATER RUNOFF.....	22
	HAZARDOUS WASTE/MATERIALS.....	27
	CLIMATE CHANGE.....	30
	Biological Environment	34
	NATURAL COMMUNITIES.....	34
	WETLANDS AND OTHER WATERS.....	35
	ANIMAL SPECIES.....	38
	THREATENED AND ENDANGERED SPECIES.....	40
	INVASIVE SPECIES.....	48
	Construction Impacts	49
	TEMPORARY AIR QUALITY AND NOISE IMPACTS DURING CONSTRUCTION.....	49
Chapter 3	Comments and Coordination	51
Chapter 4	List of Preparers	68
Appendix A	Interagency Coordination	69
Appendix B	CEQA Checklist	88
Appendix C	Title VI Policy Statement	98
Appendix D	Minimization and/or Mitigation Summary	99
Appendix E	List of Technical Studies	107

Chapter 1 Proposed Project

Introduction

The California Department of Transportation (Caltrans) will seismically retrofit four bridges, the Cosumnes River Bridges (24-0020R/L) and the Cosumnes River Overflow Bridges (24-0021R/L), by installing catcher/restrainer systems at the expansion joints.

On Dillard Road Overcrossing (24-0163) non-standard bridge railings will be replaced on both sides of the bridge, remove asphalt concrete (AC) surfacing, sidewalk/curb, and place polyester concrete deck overlay.

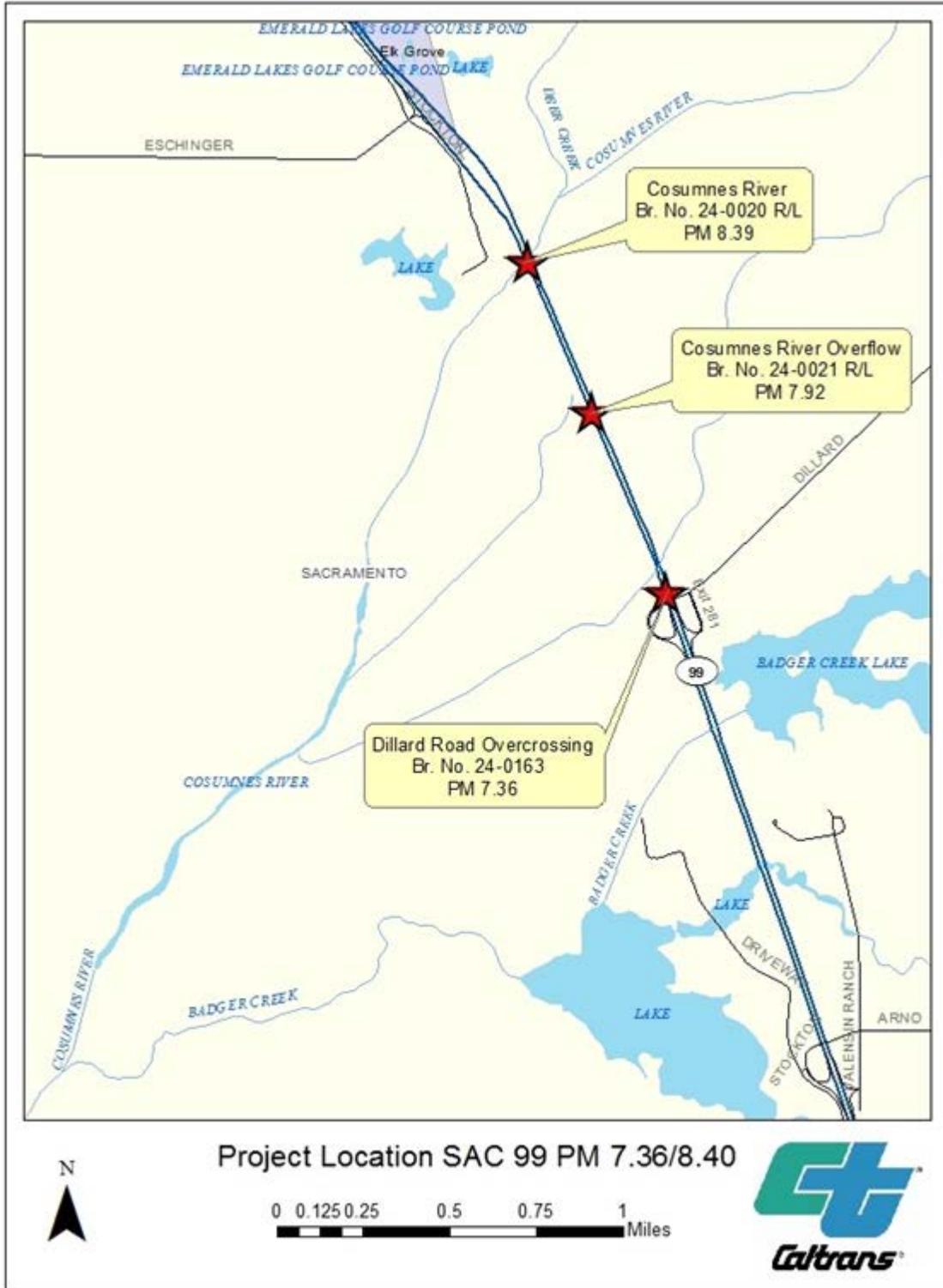
On Cosumnes River (24-0020L) and Cosumnes River Overflow (24-0021L) Bridges, the project will widen shoulders to conform to adjacent roadway sections, replace approach slabs, replace approach/transition railings, replace nonstandard bridge railings, remove AC surfacing, and place polyester concrete deck overlay.

On Cosumnes River Bridge (24-0020L) the footing at pier 7 will be retrofitted to remediate scour that is occurring at the bottom of the pier. The existing footing will be enlarged and additional piling will be added around the existing footing and the new piles, and existing footing, will be encased in a larger steel-reinforced-concrete footing. The newly constructed footing will be backfilled with native river material or large rocks.

Project Vicinity



Project Location



Purpose and Need

Cosumnes River Bridge (Bridge No. 24-0020L) and Cosumnes Overflow Bridge (Bridge No. 24-0021L) have narrow existing shoulder widths (2') which along with speeding vehicles contributes to accidents involving vehicles hitting railing curbs, bridge rails, and approach rails. The recent Caltrans Bridge Inspection Reports for the three bridges recommended upgrading the bridge railing and widening the structure width to match the approach roadbed width.

On Cosumnes River Bridge (24-0020L) the footing at pier 7 will be retrofitted. Currently the bridge is past its service life and the original wooden pilings that support the bridge footing (at pier 7) are deteriorated to point in which the bridge will, in the near future, no longer have the capacity to carry the prescribed traffic loads for the bridge. Under the footing at pier 7 the river has scoured away the soil that supports the footing, and thus exposes the wooden pilings to water that deteriorates them further. This work, along with additional minor seismic upgrades will bring the bridge up to current seismic requirements.

According to the latest collision rate data for this section of SR 99 for the three-year period from July 01, 2009 to June 30, 2012, there were thirty one collisions within the project limits resulting in fourteen injuries and no fatalities. The primary collision factor for 50% of the accidents was speeding. The primary factor for 19% of the accidents was improper turn. Forty-four percent (44%) of the accidents were rear end collisions and 38% of the accidents involved hitting an object such as the guardrail or bridge rail.

This project will improve clearance at bridge rails and approach rails. This project will preserve the integrity of the facility and maintain smooth traffic flow and delay additional maintenance or replacement, which would be at a much greater cost.

Project Description

The proposed project will upgrade the Cosumnes River Overflow (Bridge No. 24-0021L) and Cosumnes River (Bridge No. 24-0020L) Bridges by widening the shoulders, replacing the approach slabs, replacing the approach/transition railing, replacing the non-standard bridge rails, removing the asphalt concrete deck surface, and placing a polyester concrete deck overlay. Work on the Dillard Road Overcrossing (OC) (Bridge No. 24-0163), will include replacing non-standard bridge railing on both sides of the bridge, removing AC Surfacing, placing polyester concrete deck overlay (See Figure 3). The project would also replace the guardrails below Dillard Road OC along State Route (SR) 99.

The seismic retrofit of the Cosumnes River Bridge and the Cosumnes River Overflow Bridge involves typical cast-in-place bridge widening construction methods. Catcher/restrainer systems will be installed at the expansion joints of all four bridges.

The Cosumnes River Bridge is supported by sixteen rows of eighteen inch diameter columns and five rows of four by forty two feet pier walls (See Figure 1). The construction of the bridge will require driving three steel or concrete piles at each bent. The length of the piles will be between sixty and eighty feet. There will be a total of sixty eight new piles driven at the Cosumnes River Bridge. The pier walls at bents 5 through 9 will be extended by approximately 7 feet.

The Cosumnes Over Flow Bridge is supported by twenty-four rows of eighteen inch diameter columns (See Figure 2). The construction of the bridge will require driving three steel or concrete piles at each bent. There will be a total of seventy-two new piles driven at the Cosumnes River Overflow Bridge. The length of the piles will be between sixty and eighty feet.

On Cosumnes River (24-0020L) the footing at pier 7 will be retrofitted to remediate scour that is occurring at the bottom of the pier (See Figure 4). The existing footing will be enlarged and additional piling (22, 30" diameter cast-in-steel-shell (CISS) piles) will be driven in small segments (likely 10ft segment lengths) due to low overhead clearance of the existing bridge. Once the piles are installed, pile rebar will be placed in the steel shells and concrete filled in the steel shells to top of piling. A new enlarged footing (with rebar) will be construction over the new piling. The new footing will encase the existing footing and part of the existing column. The newly constructed footing will likely be backfilled with native river material or large rocks (also called rock slope protection).

Figure 1

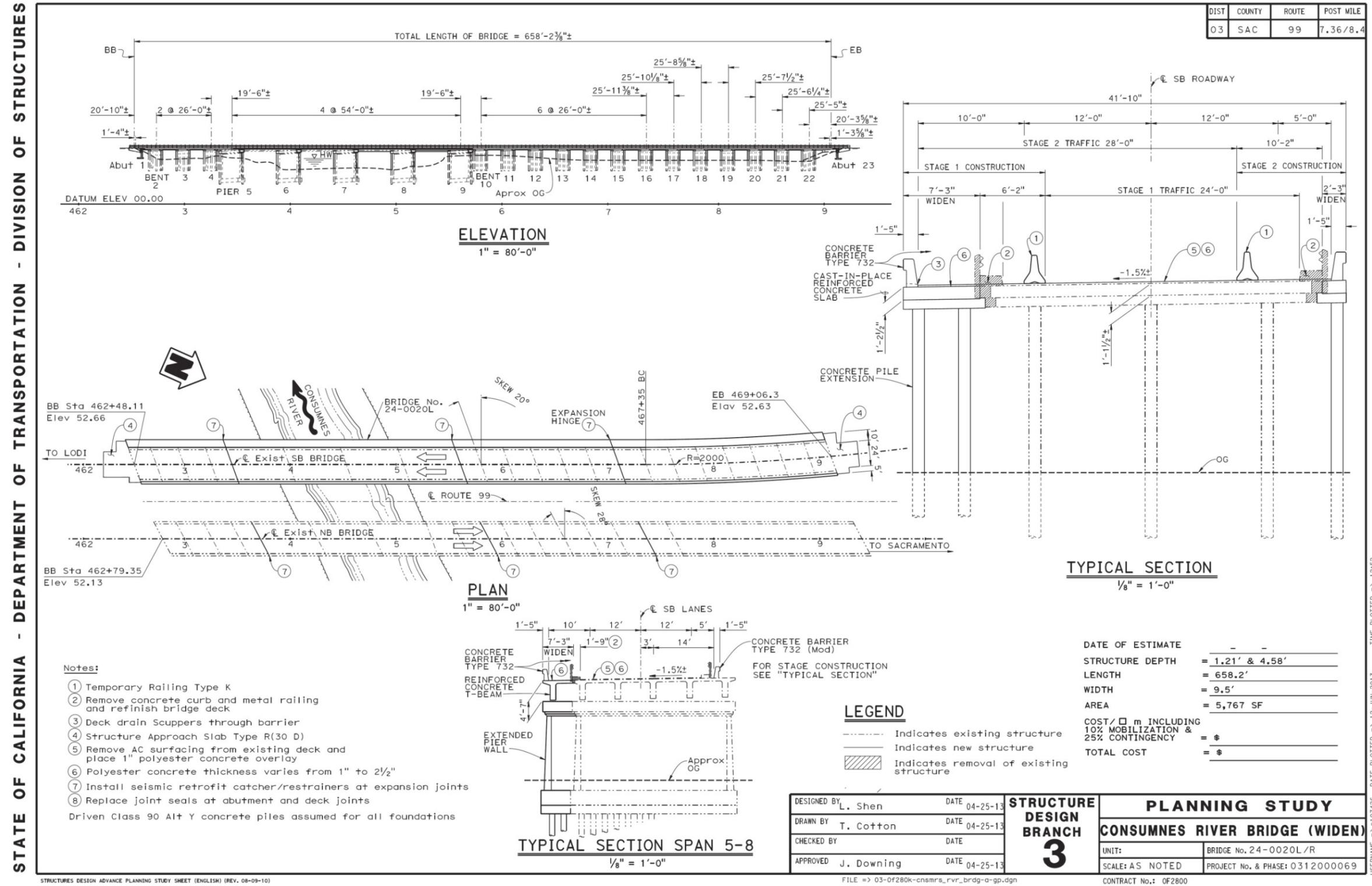


Figure 3

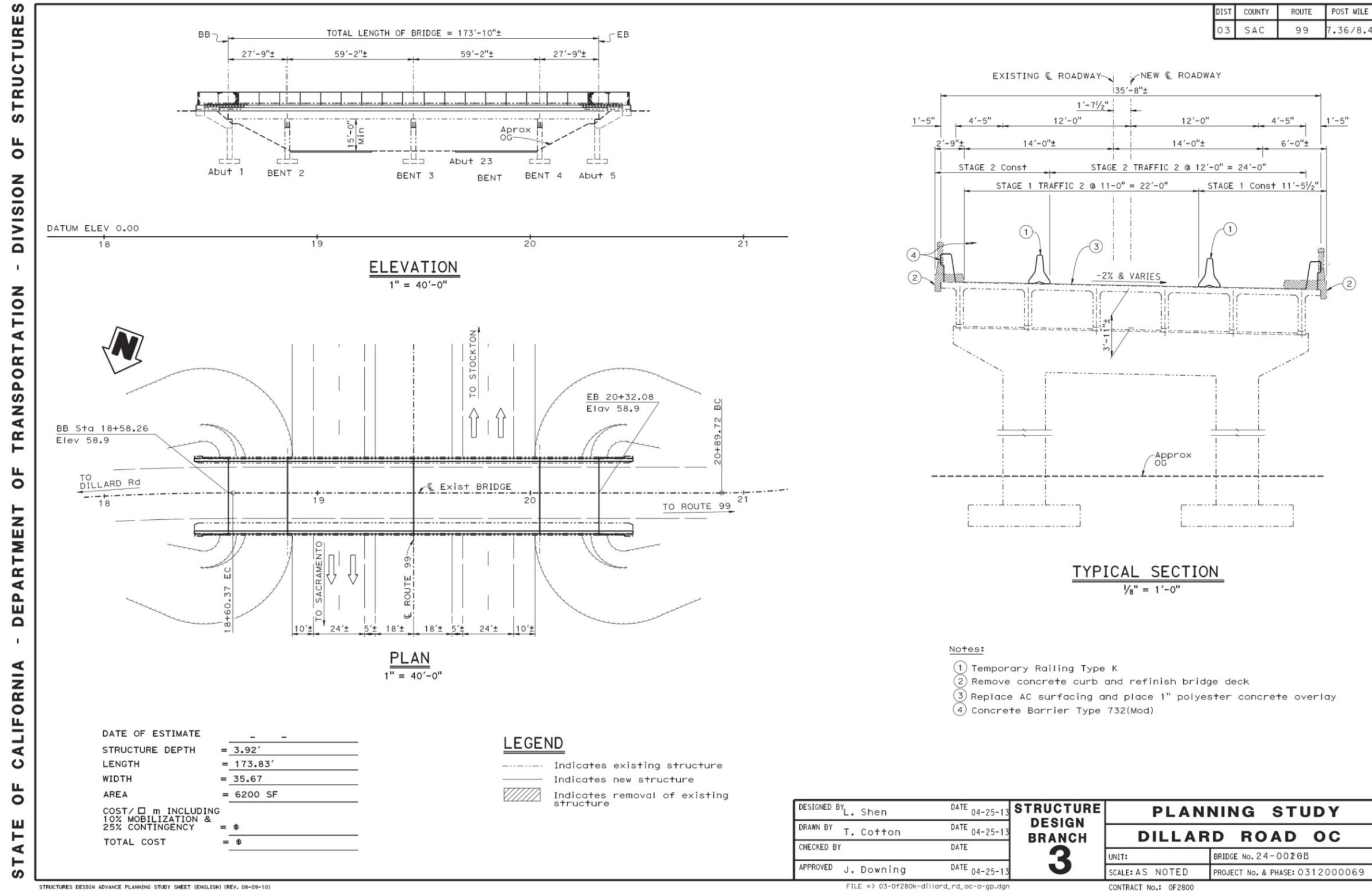
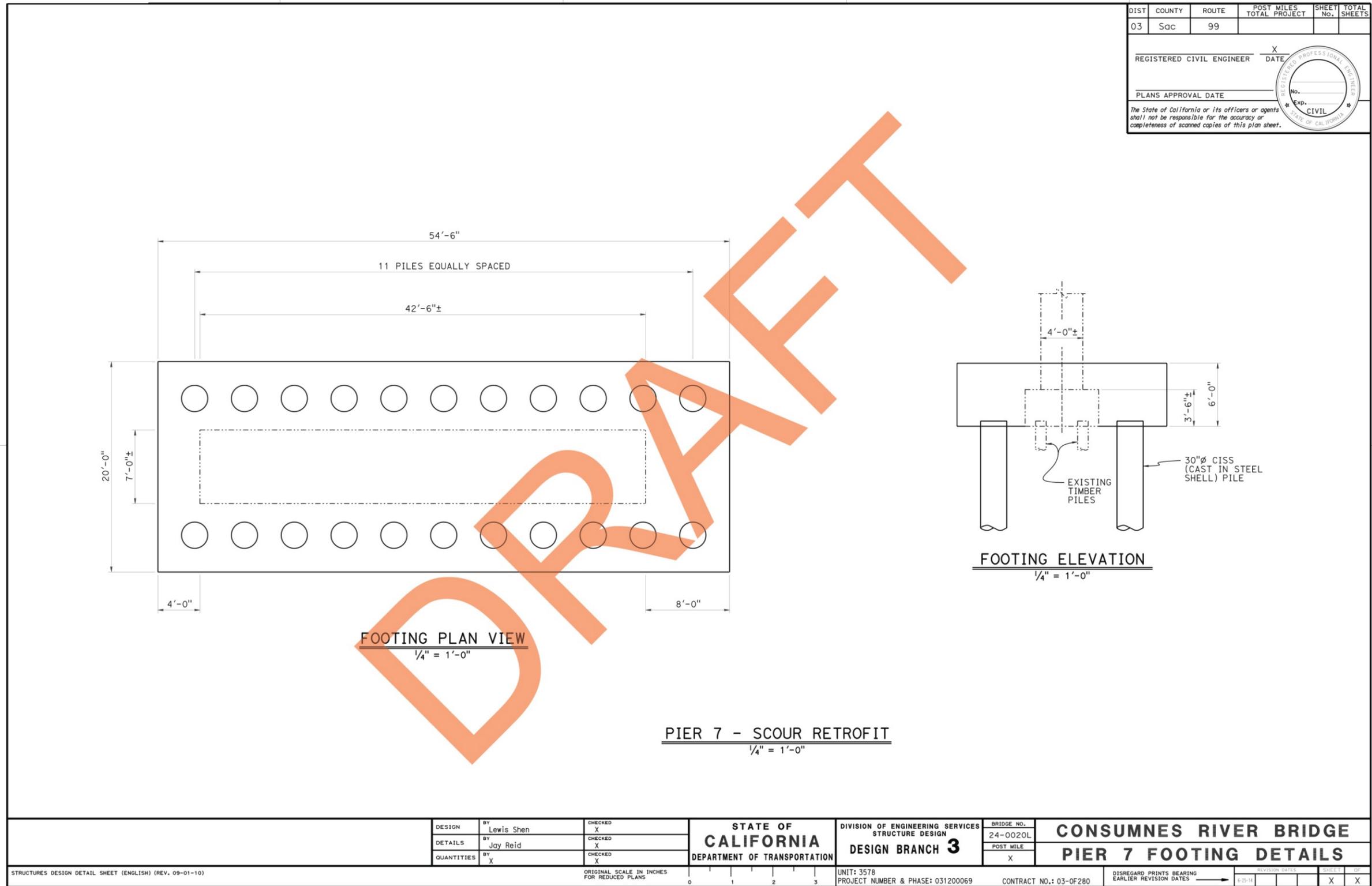


Figure 4



PROJECT ALTERNATIVES

Build (Action) Alternative

This alternative will resolve work recommendation items documented in Bridge Inspection Reports and will reduce repair and replacement efforts.

The project will include minor seismic retrofit of the Cosumnes River Bridges (24-0020L/R) and Cosumnes Overflow Bridges (24-0021L/R) replacement of existing non-standard bridge railings, replacement of asphalt concrete (AC) surfacing with 1 inch thick polyester concrete deck overlay, and removal of the westbound sidewalk.

On the Dillard Rd. Overcrossing the project will replace existing non-standard bridge railings, widen Cosumnes River Bridge (24-0020L) and Cosumnes Overflow Bridge (24-0021L) bridge shoulders to conform to adjacent roadway shoulders; and replace AC surfacing with 1 inch thick polyester concrete deck overlay.

Two potential staging areas have been considered as part of this project. One area is located in an open area four hundred feet north of the Cosumnes River, and the other is located in the median area of the Dillard Road interchange.

No-Build (No-Action) Alternative

This alternative does not address the work items recommended by Bridge Inspection Reports. The consequences of not doing the proposed work are continued deterioration and reduced life span of the bridges. Future maintenance costs and efforts will increase and ultimately result in deck replacement and/or complete bridge replacement.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

None

Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	Consultation is ongoing. Biological Assessment sent to USFWS in February of 2014.
National Marine Fisheries Service	Section 7 Consultation for Threatened and Endangered Species	Consultation is ongoing. Biological Assessment sent to NMFS on 1/29/14.
United States Army Corps of Engineers	Section 404 Nationwide Permit for filling or dredging waters of the United States.	Application will be submitted during the Plans, Specifications, and Estimates (PSE) phase of the project delivery
California Department of Fish and Wildlife	Section 1602 Agreement for Streambed Alteration Section 2080.1 Agreement for Threatened and Endangered Species	Application will be submitted during the Plans, Specifications, and Estimates (PSE) phase of the project delivery
Central Valley Regional Water Quality Control Board	Section 401 Water Quality Certification	Application will be submitted during the Plans, Specifications, and Estimates (PSE) phase of the project delivery
Central Valley Flood Protection Board	Encroachment Permit	Application will be submitted during the Plans, Specifications, and Estimates (PSE) phase of the project delivery
California State Lands Commission	License Agreement	Application will be submitted during the Plans, Specifications, and Estimates (PSE) phase of the project delivery

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

As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in this document.

- Coastal Zone
- Community Impacts and Environmental Justice
- Emergency Services
- Farmlands/Timberlands
- Geology/Soils/Topography/Mineral Resources
- Growth
- Invasive Species
- Land Use and Planning
- Paleontology
- Parks and Recreation Facilities
- Pedestrian and Bicycle Facilities
- Public Services
- Rare and Special Status Plants
- Relocations and Real Property Acquisition
- Wild and Scenic Rivers

After construction, the proposed project will not result in air quality, or noise impacts; however, temporary impacts for these issues are discussed in the Construction Impacts section.

Human Environment

UTILITIES

Affected Environment

A utilities conflict analysis was completed in July of 2014.

A Kinder Morgan petroleum pipeline is located underneath the Cosumnes River Overflow Bridge (Br. 24-0021 R/L). The pipeline is located between bents 23 and 24. Holes will be dug to positively locate the line.

Sacramento Municipal Utility District (SMUD) and Comcast's fiber optic lines are located on joint poles on the west side of the southbound lanes throughout the project limits. It is estimated that between 5 to 7 utility poles will be relocated for construction activities. SMUD has an electrical line (buried) just north of Dillard Road Overcrossing. The facility traverses the roadway. This facility will be potholed for positive location and protected as necessary.

A water gauge owned by the Department of Water Resources (DWR) is located at Cosumnes River Bridge (Br. 24-0020 L). The utility is attached to a bent and will be relocated or taken out of service during construction activities.

Environmental Consequences

The affected utilities include Kinder Morgan, SMUD, and Comcast as listed above. There are no expected long term impacts to utilities. Temporary impacts will be due to relocation efforts only by SMUD and Comcast. No service interruptions are expected outside of the relocation. The water gauge owned by DWR may possibly be out of service during construction activities.

Avoidance, Minimization, and/or Mitigation Measures

It is anticipated that SMUD and Comcast utilities located on a joint pole will be relocated to allow for crane access at both the Cosumnes River Bridge and the Cosumnes River Overflow Bridges. It is anticipated that any interruptions will be minor in nature and short term. Typically the new poles are installed while the existing poles are still active. This limits the amount of time the utilities are shut off because they can be moved immediately onto the new poles. The Kinder Morgan utility located underneath the Cosumnes River Overflow Bridge may be protected in place or service may be briefly interrupted during the placement of new bents 23 and 24. No anticipated disruption is expected as the work continues outside of the bents mentioned. The SMUD electrical line just north of Dillard Crossing will be protected in place and/or design may also be revised to ensure that said facility is not affected. No disruption is expected for homeowners.

All utilities that may be affected (SMUD, COMCAST, and Kinder Morgan) have been contacted and are aware of the project scope and duration. SMUD and Comcast are currently in the process of assessing the relocation work to take place sometime early 2015. Kinder Morgan's petroleum pipeline will be positively located (potholed) at the end of September 2014. Once potholing data is received, relocation or protect-in-place efforts will be coordinated between Kinder Morgan and Caltrans. If a disruption in service is

anticipated all parties involved (such as homeowners) will be notified via letters, door tags (fliers), and door to door contact.

TRAFFIC AND TRANSPORTATION

Affected Environment

A Traffic Management Plan was completed in August 2013 for this project. State Route 99 (SR 99) extends over 400 miles through California's San Joaquin and Sacramento Valleys. The highway links over 11 urbanized communities in 13 counties, and provides critical connections between Chico, Yuba City, Sacramento, and Stockton. SR 99 has high truck volumes with significant increases in truck traffic during peak agricultural seasons. In Caltrans District 3, the route is not completed to freeway/expressway standards, primarily north of Sacramento. The segment of SR 99 where this project is located from the San Joaquin through Sacramento County Line to Elk Grove Boulevard (PM 0.0 – PM 12.76), currently operates at Level of Service "D" and is expected to operate at Level of Service "F" for both 20-year conceptual and no-build scenarios. Within the project limits, SR 99 is multi-lane highway with daily peak hour volume of 5,900 vehicles per hour (vph), (both directions combined).

Environmental Consequences

The proposed project will require lane closures during construction which will result in a slowdown of traffic and increased in congestion within the project limits.

Post construction the proposed project will improve clearance at bridge rails and approach rails, as well as, preserve the integrity of the facility and maintain smooth traffic flow.

Avoidance, Minimization, and/or Mitigation Measures

To prevent increased congestion and keep traffic moving smoothly the following measures will be implemented during construction.

- Work requiring traffic control on mainline, ramps, and shoulders may be restricted from late evening to early morning hours only.
- Temporary railing will be placed to separate road work from the traveling public when necessary.
- Temporary railing shall be secured in place prior to allowing traffic on a bridge when bridge rails are removed for replacement.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on special days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- Signs will be used to inform drivers of ongoing work and closures.
- Adjacent ramp closures will be allowed during lane closures.
- One-way traffic control will be allowed on Dillard Road Overcrossing Bridge (# 24-0163) during evening hours, but may be restricted during time with higher traffic volumes.
- A full directional closure, with detours, may be allowed late evening to early morning hours during bridge rails replacement on the Dillard Road Overcrossing Bridge (# 24-0163).

VISUAL/AESTHETICS

Regulatory Setting

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

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

Affected Environment

A Visual Impact Assessment was completed in May of 2014.

The major visual resource of the area is the Cosumnes River and its ecosystem. The Cosumnes River rises on the western slope of the Sierra Nevada and flows approximately 52.5 miles (84.5 km) into the Central Valley, emptying into the Mokelumne River in the Sacramento-San Joaquin Delta. As the last undammed river flowing from the west slope of the Sierra, the Cosumnes is a vital example of a healthy watershed. Plans have been proposed to re-introduce salmon spawning into the river. Dams have been proposed to be built on the river to control flows, but these plans have largely stalled because of the river's unique free-flowing status.

The project site is located in the California Central Valley, a region that is relatively flat with views of the distant foothills of the Sierra Nevada Mountains to the east. As one drives through the vicinity of the proposed project area, the scenery is pleasant with very little development. The landscape consists of cultivated fields consisting of rice, agricultural and open undeveloped fields. An aerial view presents a patchwork of irrigated fields mixed in with arid dry patches of fields and grasslands. The majority of the land has been altered due to cultivation and farming.

The waterways and irrigation channels are lined with riparian vegetation. Several miles to the north and south are areas of urbanization. The project site lies between the town of Elk Grove, which is north, and the town of Galt to the south. The land use in the immediate area is agricultural and open fields, which is bisected by the Cosumnes River. However, as one drives over the Cosumnes River Bridge the trees and shrubs are dense on both sides of the structure with riparian type vegetation.

This section of highway is visually pleasing due to the open fields and pastoral type environment. The area is memorable due to vegetation that lines the open fields and irrigation channels and waterways. A visual quality exists along this section of highway that

is unique to the Central Valley however; this section of SR 99 is neither designated nor eligible for State Scenic Highway.

Consideration is given to two general viewer groups for the evaluation of viewer response, those with views from the road and those with views of the road.

Viewers from the Road: This viewer group is comprised of the highway user. Distant views by the traveling motorist along SR 99 can be very open due to the open flat landscape. The highway corridor is for the most part very straight with very few curves within this area. Sections that span the wetlands and Cosumnes River of the highway corridor are framed by mature riparian vegetation. This setting adds to the charm and memorable quality of the visual and aesthetic resources. However, as one travels over the Dillard Road Overcrossing views are expansive of the Central Valley.

The foreground and middle ground views along the highway's project location are dominant where the edges of the highway have vegetation however, as one travels this route their views open up to the surrounding landscape that consist of various types of cultivated fields, and distant foothill landscapes.

The awareness of visual resources by these highway users is expected to vary with their specific activity. In general, highway users in vehicles will experience the area as a cumulative sequence of views and may not focus on specific roadway features. Local residents are the most sensitive to aesthetic issues due to their familiarity as well as their personal investment in the area.

Viewers of the Road: This viewer group consist of all those who can see the road's project area or any of its components from off-site locations. In the case of this project, the number of people with views to the specific project location is limited. There is very little development in the area.

The view of Dillard Road Overcrossing will be most visible to those traveling along SR 99 since they will be passing under this structure. The views of Cosumnes River Bridge and Cosumnes River Overflow Bridge are visible from some of the surrounding fields and but both bridges are not overstated in any manner. They are flush with the highway and do not have a structure overhead that makes the bridge an obvious feature in the landscape, from the surrounding landscape one may have the possibility of seeing the bridge's support system (piers). Due to the riparian vegetation the structure is somewhat camouflaged.

The proposed project will remove some of this vegetation in order to retrofit the bridge's support system and in the short term this will open up views of the structures.

Environmental Consequences

There will be visual impacts caused by this project; some will be temporary and some longer-lasting. Temporary visual impacts will be during the construction caused by drilling equipment and development of false-work for retrofitting the bridges. The longer-lasting visual impacts will consist of the removal of large and mature riparian trees and vegetation that exists within the river's ecosystem.

The most noteworthy visual impacts due to the proposed project will be the disturbance of the environment around the construction zone and staging areas. The riparian vegetation is a visual resource within the area.

The visual impacts of this Bridge retrofit project will initially appear substantial but will lessen over time as the proposed re-vegetation takes hold and matures. Impacts to visual resources are considered less than significant with the implementation of minimization measures.

Avoidance, Minimization, and/or Mitigation Measures

The minimization of the impacts caused by this project can be achieved by implementing the following measures:

- All areas disturbed due to all construction activities, including staging locations, temporary construction easements (TCE) and access roads shall be restored to its pre-construction condition upon completion of the project. This can best be accomplished by loosening and re-contouring the area's soil before applying erosion control (such as hydro-seed with native seed mix and erosion control blankets).
- Removal of vegetation, including trees, will be at the lowest level necessary to construct the project.
- All disturbed areas during each construction season shall utilize best management practices (BMPs) which will include temporary erosion control consisting of a native seed mix at the end of each construction season.
- All removed riparian vegetation will be replaced after construction is completed. A re-vegetation plan will be approved by the various resource agencies prior to the start of restoration and the site will be monitored to ensure successful reestablishment of the area.

CULTURAL RESOURCES

Regulatory Setting

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

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation [36 Code of Federal Regulations (CFR) 800]. On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and Caltrans went into effect for transportation projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The FHWA's responsibilities under the PA have been assigned

to Caltrans as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as CA Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way.

Affected Environment

A Historic Property Survey Report (May 2014), an Archaeological Survey Report (May 2014), and an Extended Phase I Geoarchaeological Investigation (January 2014) were completed to determine the proposed project effects on cultural resources.

The archaeological Area of Potential Effects (APE) was established to encompass the maximum limits of potential ground disturbing construction activities that would reasonably be expected from the proposed project including but not limited to, all existing, temporary construction easements, utility relocations, and any staging areas.

Information was sought from a number of sources prior to the field inventory in an effort to determine the number and scope of previous cultural resource investigations that have been conducted in the area, as well as to identify any known archaeological or cultural heritage sites that have been previously identified within or near the APE. This included literature research, Native American consultation, and public participation efforts.

A records and literature search of the files at the North Central Information Center (NCIC) of the California Historical Resources Information System was conducted on October 17, 2012. The record search included documentation of known archaeological sites, prior investigations, historic landmarks, historic markers, as well as any properties listed in the National Register of Historic Places and California Register of Historical Resources within one-quarter mile of the project area.

The maps and files maintained by the NCIC showed that the entire APE had been previously surveyed, and nine cultural resources were identified near the project area, including a prehistoric site with no location data, and another that was mapped in two locations. One of the mapped locations was supposedly within the APE.

The California Native American Heritage Commission (CalNAHC) was contacted to request a search of the sacred land files for the project area. Although the search failed to yield information on Native American cultural resources located within or adjacent to the project area, the CalNAHC provided a list of individuals and organizations in the Native American community that may be able to provide information about unrecorded sites in the project vicinity. Letters were sent to the Native American individuals and organizations, followed-up by a series of phone calls.

In an effort to seek input from the public regarding concerns for cultural resources within the project area, letters were sent to the Elk Grove Historical Society, the Galt Area Historical Society and the Sacramento County Historical Society. To date, the organizations listed

above have not notified Caltrans regarding specific or general concerns for cultural resources within the project limits.

On June 10, 2013, the project area was subjected to a pedestrian survey using transects that generally proceeded parallel to the roadway. During the survey, the ground surface was examined for indications of surface or subsurface cultural resources. General morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested on the surface, such as the banks of drainages and roadside drainage ditches. Whenever possible, the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of buried deposits. Where groundcover was heavy, trowel scrapes were conducted to remove vegetation. No subsurface investigations or artifact collections were undertaken during the pedestrian survey. The survey did not result in the identification of any existing or new cultural resources.

Given that the project area is within a floodplain there is likelihood that cultural resources would be buried due to sediment that is continually deposited by flood waters over time. It was determined that the best way to determine the presence of cultural resources would be through exploratory trenching, also called Extended Phase 1 surveying.

Subsurface exploration trenches were excavated using a tractor-mounted backhoe. The trenches were excavated 10.0 to 15.0 ft away from the existing concrete support columns at every third bent location. At the Cosumnes River Overflow Bridge, trenches were excavated in the median, while at the Cosumnes River Bridge, trenches were excavated both in the median and along the western side of the southbound bridge north of the Cosumnes River channel. Each trench was numbered according to the sequence in which it was excavated. Backhoe trenches measured 2.0 ft wide, and ranged in length from 13.1 to 24.0 ft. Trench depths ranged from 7.9 to 15.4 ft; the latter depth represents the maximum reach of the backhoe.

Through the consultation with the Native American Heritage Commission (NAHC) and local Native American groups, Native American monitors were on-site during the extended phase I fieldwork.

Trench spoils were examined for cultural materials by raking and a sample was dry-screened through ¼" wire mesh upon discovery of the presence of a buried layer of decomposed organic material. Where appropriate at depths up to 5.0 ft, trench sidewalls were also examined for cultural materials. The depth and general nature of the deposits were recorded in the field, with additional attention given to those trenches that contained buried soils. Selected trenches were described in greater detail. Soil samples were collected from appropriate contexts for radiocarbon-dating analysis. The treatment and disposition of any cultural materials recovered was to be determined through consultation with the Buena Vista Rancheria Tribal Historic Preservation Officer (THPO).

Radiocarbon-dating Analysis was used to establish and refine the timeline and ages of cultural and non-cultural samples from the study area.

The Extended Phase I investigation included excavation of 15 trenches totaling an estimated maximum of 194.6 cubic yards in soil volume. Aside from modern roadside refuse, only Trenches 4, 6, 7, 12 and possibly 13 yielded cultural material. The historic era cultural material consisted of fragmented, laterally discontinuous segments of road base

(possibly asphalt), several unidentified ferrous metal fragments, concrete fragments, and possible milled wood fragments. Two rock fragments (angular igneous clasts), that could have been deposited by humans, constitute the prehistoric materials collected. One is the size of a coarse piece of gravel and the other is the size of a small cobble. Recovered from one of the trenches, these two rock fragments do not exhibit any definitive cultural modification, but were conspicuously situated in an otherwise fine-grained matrix.

Additionally, the Historic Bridge Inventory lists all five bridges as Category 5, not eligible for listing in the National Register.

Environmental Consequences

The Extended Phase I investigation failed to identify intact cultural deposits in the immediate area. The excavation of 148.8 cubic meters of soil from exploratory trenches indicates the presence of two buried soils, both of which were devoid of intact cultural deposits. Prehistoric cultural deposits, either associated with a known site or a previously unrecorded archaeological site, were not observed within the project area.

Avoidance, Minimization, and/or Mitigation Measures

It is concluded that no cultural resources are within the project limits, however, there are resources within a ¼ mile of the APE and it is recommended that any modifications to the project will be reviewed by a Caltrans archaeologist for potential effects to these other cultural resources.

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

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District 3 Environmental Management Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Physical Environment

HYDROLOGY AND FLOODPLAIN

Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

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

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

A Floodplain Hydraulics Study was completed in July of 2013. Flood Insurance Rate Maps (FIRM), panel 06067C0475H, issued by Federal Emergency Management Agency (FEMA) dated August 16, 2012, was reviewed to determine the extent of the floodplain within project limits. The FIRM panels indicate that the entire project lies in a 100-year floodplain designated as “Zone AE”. Zone “AE” is defined as “Base flood elevations determined.” The 100-year water surface elevation provided on the FIRM panels upstream of the bridges (east of the NB lanes) is 45-feet, North American Vertical Datum 1988, (NAVD 88). The As-Built plans for the Cosumnes River Overflow Bridge and the Cosumnes River Bridge were reviewed to determine the bridge deck elevations. The Cosumnes River Overflow Bridge deck elevations range from 48.19 to 48.78 feet, National Geodetic Vertical Survey 1929, (NGVD 29) and the Cosumnes River Bridge deck elevations range from 52.63 to 52.66 feet, NGVD. The Dillard Road Overcrossing Bridge deck elevation is 58.89 feet. The NAVD 88 datum generally reads 2 to 3 feet higher than the NGVD datum. This means that the 100-year water surface elevation upstream of the bridges would read 43 feet, based on the NGVD datum. The table below indicates the elevations of the bridges and the water surface and available freeboard.

Bridge Name	Bridge Number	Bridge Deck Elevation (ft) NGVD	Bridge Soffit Elevation (ft) NGVD	Water Surface Elevation (ft)NGVD	Freeboard (ft)
Cosumnes River Overflow	24-0021L	48.19	46.19	43	3.2
Cosumnes River	24-0020 L	52.63	50.63	43	7.6
Dillard Road OC	24-0163	58.89	51.89	43	8.9

Environmental Consequences

The section of the bridge deck being added for widening the South Bound lanes of the Cosumnes River and Cosumnes River Overflow bridges will match the deck/soffit elevations of the existing structures and the existing freeboard will be maintained. Dillard Road OC is

well above the existing 100-year floodplain. The added structures would be elevated above the 100-year floodplain and would have a less than significant impact on the existing floodplain. Additional columns constructed for the widening of the bridges are expected to be in-line with the existing columns and are not expected to result in the rise of water surface elevation.

The proposed project is expected to have a less than significant impact on the floodplain. The risk of any additional flooding associated with the proposed project is low.

Avoidance, Minimization, and/or Mitigation Measures

The Cosumnes River is a regulated waterway and a permit will be required from the Central Valley Flood Protection Board (CVFPB) which has jurisdiction over levees as well as waterways and floodways. Permit approval by the Central Valley Flood Protection Board may take up to 18 months (depending upon circumstances where the Board may deem it necessary to involve the Army Corps of Engineers in the review process).

WATER QUALITY AND STORM WATER RUNOFF

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source¹ unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

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

¹ A point source is any discrete conveyance such as a pipe or a man-made ditch.

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

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

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of the USACE’s Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency’s Section 404 (b)(1) Guidelines (U.S. EPA Code of Federal Regulations [CFR] 40 Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a less environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent² standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

California’s Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of “waste” as defined, and this definition is broader than the CWA definition of “pollutant.” Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water

² The U.S. EPA defines “effluent” as “wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall.”

body segments in their jurisdictions and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

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

- **National Pollutant Discharge Elimination System (NPDES) Program**

Municipal Separate Storm Sewer Systems (MS4)

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

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

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water management procedures and

practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with Caltrans' Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

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

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

Affected Environment

A Water Quality Assessment was completed in October 2013 by qualified Caltrans staff. The project is located within the Lower Cosumnes River watershed. The Central Valley Regional Water Quality Control Board (RWQCB) has jurisdiction within the project limits which fall within Herald Hydrologic Sub-Area 531.11 in Lower-Cosumnes-Dry Hydrologic Area. The principal receiving water bodies are the Cosumnes River, Lower (below Michigan Bar; partly in Delta Waterways, eastern portion) and Cosumnes River Overflow. Cosumnes River, Lower (below Michigan Bar; partly in Delta Waterways eastern portion) is a 303(d) listed water body for *Escherichia coli* (*E. coli*), Invasive Species, and Sediment Toxicity. No TMDLs are associated with this area.

No changes to existing drainage profiles are anticipated. All construction and project related work is anticipated to be performed within Caltrans' right-of-way (ROW) and/or temporary construction easements, as indicated on the environmental study limit plans. Staging areas have been identified, but a finalized disturbed soil area (DSA) has not been determined at this time and may exceed 1 acre. Projects with a DSA equal to or great than 1 acre will require a Storm Water Pollution Prevention Plan (SWPPP) and will be subject to the requirements of the Construction General Permit (CGP).

The nearest *major* receiving water body to the proposed project areas is the Cosumnes River, which is linked to the Delta Waterways. The water bodies and beneficial uses associated with HSA 531.11 (listed above) can also be found in the Central Valley Water Quality Control Board Basin Plan. The project does not appear to be within a county Municipal Separate Storm Sewer System (MS4) permitted area; however, the project is within a "High Risk Receiving Watershed." No drinking water reservoirs and/or recharge facilities were identified, where spills from Caltrans' owned right-of-way activities could discharge to.

Environmental Consequences

Due to the nature of work it is not expected that construction operations will impact water quality. The proper application and appropriate use of construction site Best Management Practices (BMPs) will be required, so that potential environmental impacts are minimized or avoided.

Avoidance, Minimization, and/or Mitigation Measures

The proposed project would result in over one acre of DSA. The NPDES permit and the SWPPP include the following regulations and shall be adhered to:

- During construction, compliance with the NPDES permit requires the appropriate selection and deployment of both structural and non-structural Best Management Practices (BMPs) that achieve the performance standards of Best Available Technology economically achievable/Best Conventional Pollutant Control Technology (BAT/BCT) to reduce or eliminate storm water pollution.
- The general contractor performing the work would be responsible for preparing the approved SWPPP, constructing or implementing the BMP measures and regularly inspecting and maintaining the implementation plan.

- Temporary BMPs would be implemented during construction activities to avoid erosion and sedimentation, prevent off site contamination by construction materials, reduce the pollutants in storm water discharges through construction, reduce storm water discharges from the construction site and reduce impacts on water bodies once the project is complete.
- Where working areas encroach on live or dry streams, lakes, or wetlands, RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems will be constructed and maintained between working areas and streams, lakes and wetlands. During construction of the barriers, discharge of sediment and silt into streams will be held to a minimum. Discharge will be contained through the use RWQCB-approved measures to keep sediment from entering protected waters.
- Oily or greasy substances originating from the Contractor's operations will not be allowed to enter or be placed where they will later enter tributary waters or a live or dry stream. Asphalt concrete will not be allowed to enter tributary waters, a live or dry stream, pond, or wetland.
- Standard Special Provisions (SSP) for Construction Site Management, Water Pollution Control and Relations with the Regional Water Quality Control Board will reduce the impacts of construction activities and prevent construction site runoff from entering adjacent waterways. The project SWPPP would also require the Contractor to identify the location and storm water protection of designated staging areas and would include specific requirements for equipment fueling, maintenance and storage processes.

HAZARDOUS WASTE/MATERIALS

Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health and land use.

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

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)

- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

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

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

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

The *Code of Federal Regulations (CFR)*, 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration (FED OSHA) classify Asbestos Containing Materials (ACMs) as any material or product that contains *greater than* 1% asbestos.

NESHAP regulations do not require that asbestos-containing bolt thread compound or guard rail shims (Category 1 non-friable/nonhazardous materials) identified in the structure to be removed prior to renovation/demolition or treated as hazardous waste. The disturbance of these materials is covered by the Cal/OSHA asbestos standard contained in Title 8, CCR.

In addition, since February 2014, the concrete in all structures must be sample for ACMs prior to the NESHAP Notification.

Affected Environment

A Hazardous Waste Initial Site Assessment (ISA) was completed in May of 2014. An asbestos survey conducted during July 2002 on the pier 9 of Br. 24-0020L.

The hazardous waste investigation was limited to a records review. Based on the nature of the project work, the potential for petroleum hydrocarbons contamination is not expected within the project site(s) study limits.

Lead-contaminated soil exists due to the historical use of leaded gasoline, leaded airline fuels, waste incineration, etc. The areas of primary concern in relation to highway facilities are soils along routes that have had high vehicle emissions due to large traffic volumes,

congestion, or stop and go situations during the time period when leaded gasoline was in use.

Treated wood waste (TWW) can be generated due to the replacement of the posts from metal beam guard railing (MBGR), three beam barrier, piles, or roadside signs. These wood products are typically treated with preserving chemicals that may be hazardous (carcinogenic) and include but are not limited to arsenic, chromium, copper, creosote, and pentachlorophenol. The Department of Toxic Substances Control (DTSC) requires that TWW either be disposed as a hazardous waste, or if not tested, the generator may presume that TWW is a hazardous waste and must be disposed in an approved treated wood waste facility.

Asbestos Containing Materials (ACM's) are present in the form of shim sheets for the aluminum bridge railing cast aluminum posts. There are also asbestos sheets packing the bridge hinges. An asbestos survey conducted during July 2002 on the pier 9 of Br. 24-0020L concluded that no asbestos was detected on the pier. Prior to the design phase of the proposed project, a comprehensive survey will be conducted to determine the presence of asbestos at each structure.

Environmental Consequences

The disturbance and transport of soil that contains ADL has the potential to exposed workers and the public to elevated levels of lead. Lead exposure can also result from workers coming in contact with residue resulting from the removal of traffic striping and pavement markings.

The mishandling and improper disposal of TWW has the potential to expose workers and the public to elevated levels of heavy metals and other toxic substances.

The mishandling and improper disposal of ACMs has the potential to expose workers and the public to asbestos particles which could result in long-term negative health effects.

Avoidance, Minimization, and/or Mitigation Measures

Materials Containing Lead and Aerially Deposited Lead

The Contractor must implement a project specific Lead Compliance Plan prepared by a Certified Industrial Hygienist (CIH) as required by the California Occupational Safety and Health Administration (Cal/OSHA). The plan will detail the correct procedures for handling, removing, and disposing of earth materials containing lead and waste from removing traffic stripes and pavement markings.

All materials containing lead will be handled in accordance with all applicable laws, rules, and regulations, including those of the following agencies: California Occupational Safety and Health Administration (Cal/OSHA), California Regional Water Quality Control Board (Central Valley RWQCB), California Department of Toxic Substances Control (CA DTSC).

All workers, including Caltrans staff, will receive lead compliance training before beginning any work that could potentially expose them to lead containing substances.

Treated Wood Waste

During the proposed project any workers that have the potential to come in contact or handle treated wood waste (TWW) will be given training on the proper handling procedures and applicable laws, including procedures for identifying and segregating TWW, and proper disposal methods.

Treated wood waste will be, properly labeled for easy identification, and stored within the project area in a secured lockable enclosure to prevent unauthorized access. The TWW will also be stored so that it is protected from precipitation, or any other sources of water, to prevent contaminating any water that could leave the site. All TWW that leaves the site will be documented and disposed of at an approved TWW facility.

Asbestos

To prevent worker exposure to asbestos Caltrans will require that the contractor submit an Asbestos Compliance Plan that will detail the correct procedures for handling, removing, and disposing of materials containing asbestos.

The Contractor must prepare bridge demolition/renovation notification/permit form and attachments to be submitted to the Air Pollution Control District (APCD) or Air Quality Management District (AQMD) as required by the National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR Part 61, Subpart M, and California Health and Safety Code section 39658(b)(1). Notification must take place no less than 20 days before starting demolition or renovation activities as defined in the NESHAP regulations.

CLIMATE CHANGE

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

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

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower GHG emitting fuels, and 4) improving vehicle technologies. To be most effective all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

Regulatory Setting

State Regulations

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

- Assembly Bill 1493 (AB 1493), Pavley.
- Executive Order (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger)
- AB 32, the Global Warming Solutions Act of 2006, Núñez and Pavley
- Executive Order S-20-06: (signed on October 18, 2006 by former Governor Arnold Schwarzenegger)
- Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger)
- Senate Bill 97 (SB 97) Chapter 185, 2007
- Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a policy that will ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. This policy contributes to the Caltrans' stewardship goal to preserve and enhance California's resources and assets.

Federal Regulations

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Despite the lack of Federal GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

Project Analysis

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means

that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.³

Caltrans and its parent agency, the California Transportation Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.⁴

The proposed project will not result in an increase in GHG emissions because the repair work and widening will extend the service life of the bridges, preserve the integrity of the facility, maintain smooth traffic flow, and delay additional maintenance or replacement. Extra maintenance would produce more GHG than the proposed project would produce in construction as discussed below.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

CEQA Conclusion

Although construction emissions are unavoidable and are expected to be minimal, the proposed project will not increase capacity and is not expected to result in additional operational CO₂ emissions. However, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Climate Change Strategies

³ This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

⁴ Caltrans Climate Action Program is located at the following web address:
http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)⁵.

Greenhouse Gas Reduction Measures

AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

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

- According to Caltrans's Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's (APCD) rules, ordinances, and regulations regarding to air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Adaptation Strategies

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

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed

⁵ http://climatechange.transportation.org/ghg_mitigation/
State Route 99 Bridge Project

project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

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

Biological Environment

NATURAL COMMUNITIES

Affected Environment

A Natural Environment Study was completed in July of 2014.

Great Valley Valley Oak Riparian Forest

Great Valley, valley oak riparian forest consists of medium to tall broad-leafed, winter-deciduous, riparian forest where the dominating tree species is valley oak. Other trees common in valley oak riparian forests include Oregon ash, black walnut, and California sycamore. Valley oak riparian forests are restricted to high parts of floodplains, where it can contain flooding but still receive inputs of subsurface irrigation. Valley oak riparian forest used to be extensive along major tributaries of the Sacramento River and northern San Joaquin Valley but due to agriculture and firewood harvesting is now very limited in the Central Valley (Holland 1986).

Essential Fish Habitat

Essential Fish Habitat (EFH) consists of all waters currently or historically accessible to salmon. The seasonal presence fall-run Chinook salmon is known to occur within the Cosumnes River in the project area. Although salmon are present in the Sacramento Basin for the entire year at different stages of its life-cycle, year-round occurrence is not expected in the project area because of dry summer conditions that preclude juvenile residency and over-summer rearing. Due to the Cosumnes River being seasonally intermittent the proposed project area can only be utilized as an adult migration corridor and juvenile emigration corridor. The presence of fall-run Chinook salmon would be dependent on suitable water conditions that occur in the project area during winter months, when precipitation maintains appropriate water temperature and volume.

Environmental Consequences

Great Valley Valley Oak Riparian Forest

The proposed project will result in approximately 0.117 acres of permanent impacts and 1.018 acres of temporary impacts to Great Valley, valley oak riparian forest habitat due to the widening of the Cosumnes River Bridge.

Riparian trees have high biological value for wildlife. Riparian vegetation provides nesting habitat to migratory and resident birds, provides shade and temperature control to nearby

aquatic resources, and provides a safe migration corridor to a variety of wildlife. While the impact area is small it can still have an impact to its associated wildlife.

EFH

The construction of the proposed project involves lengthening the Cosumnes River Bridge's pier walls and enlarging the pier footing in the Cosumnes River which will result in approximately 0.025 acre of permanent fill in the water way. The widening of the Cosumnes River Bridge will also result in the permanent loss of 6-11 feet (approximately 0.008 acre) of shaded riverine habitat along each bank.

Due to construction activities occurring when the river is dry and the implementation of avoidance and minimization measures and best management practices, the project will not impede fish passage due to lack of water in the channel during the construction window (CDWR 2013). The proposed project will not obstruct fish passage and construction will maintain an open river channel at all times.

Avoidance, Minimization, and/or Mitigation Measures

Great Valley Valley Riparian Forest

The following avoidance and minimization efforts shall be implemented to reduce potential impact to riparian habitat within the project area:

- Tree removal will be avoided whenever possible and temporary impacts will be addressed onsite through re-vegetation.
- Exclusionary fencing shall be installed along the boundaries of all riparian areas to be avoided to ensure that impacts to riparian vegetation outside of the construction zone are minimized.

All removed riparian vegetation will be replaced after construction is completed. A re-vegetation plan will be approved by the various resource agencies prior to the start of restoration and the site will be monitored to ensure successful reestablishment of the area.

EFH

The permanently filled area will be mitigated through the purchased of credits at a NMFS approved mitigation bank. The expanded bridge deck will provide additional shade over the Cosumnes River (approximately 0.03 acre) which will compensate for the loss riparian associated shading removed by the project.

WETLANDS AND OTHER WATERS

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S.

include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

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

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

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

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or 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 CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands

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

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

Affected Environment

In October 2013 Caltrans biologists delineated one potentially jurisdictional waters and seven potentially jurisdictional wetlands within the project area. A follow-up botanical survey was conducted on April 24, 2014, which identified a small vernal pool complex.

Caltrans submitted a Preliminary Jurisdictional Determination Report to the USACE to obtain verification of limits of waters of the U.S. for the proposed project. USACE concurred with the amount and location of wetlands and other water bodies in the project area on April 21, 2014.

The Cosumnes River's watershed flows from the west side of the Sierra Nevada range in central California and outlets into the Mokelumne River. It ranges in elevation from 7850 feet to sea level at the Mokelumne River. Only 16% of the watershed lies above 5000 feet so most of the flow of the river is a result of rainfall rather than snowmelt. This means that the river has higher winter flood pulses and smaller spring flood flows. Groundwater provides the Cosumnes base flow support but due to heavy agriculture use the groundwater tables have been lowered as much as 100 feet in some sections of the river. This condition is the main reason sections of the lower Cosumnes river sees extended periods of no flow dry conditions in the summer and early fall. Historically groundwater supported flows during late summer and early fall which would have provided aquatic habitat to a greater diversity of native fish species (Moyle et al, 2003).

One vernal pool complex was identified within the project limits. The vernal pool complex is located at the northern most extent of the project within an area that has been identified as a potential staging area for equipment and material during the construction of the project. All staging for this project will be restricted from this area and limited only to the east side of the access road.

Environmental Consequences

The proposed project would temporarily impact 0.134 acres and permanently impact 0.025 acres of jurisdictional waters of the United States. There will be no impact to wetlands or vernal pools.

The vernal pool complex located at the northern most extent of the project within an area that has been identified as a potential staging area for equipment and material during the construction of the project. No grading or excavation near or adjacent to this feature is being proposed. This is an isolated feature and is located directly adjacent to an access

road that is regularly used by the current landowners to access the surrounding agricultural fields.

Avoidance, Minimization, and/or Mitigation Measures

Best management practices will be implemented to guarantee the smallest practical footprint to minimize temporary, indirect, and permanent impacts to jurisdictional waters of the United States. Work will be limited to when the river is dry. Wetlands and vernal pools will be fenced with environmentally sensitive area fencing to prevent any impacts from the proposed project.

Temporary impacts will be mitigated through restoration. Permanent impacts will be mitigated by the purchase of credits at an approved mitigation bank or through “in-lieu-fee” mitigation.

The proposed project will not result in cumulative impacts to wetlands and other waters.

ANIMAL SPECIES

Regulatory Setting

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

Federal laws and regulations relevant to wildlife include the following:

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

State laws and regulations relevant to wildlife include the following:

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

Affected Environment

The Natural Environment Study was completed in July 2014 by qualified Caltrans biology staff. The Cosumnes River Bridge provides suitable habitat for a nesting colony of cliff swallows. The cliff swallow is a fairly common migratory bird species that forms large nesting colonies on box culverts and bridges. When access to suitable habitat is prevented at one colony, cliff swallows leave the area and join nesting colonies elsewhere. Throughout the project area numerous trees and shrubs were identified within and adjacent to the project limits which have the potential to provide suitable habitat for birds protected under the Migratory Bird Treaty Act.

Evidence of bat activity (i.e. bat guano and staining on the structure) was observed underneath the Cosumnes River Bridge during field investigations.

Environmental Consequences

Migratory birds could potentially be affected by the proposed project if they are present within the project limits during construction. Potential impacts include nest abandonment, increased stress, and mortality. However, no impacts to migratory birds are anticipated with implementation of the avoidance and minimization measures listed below.

The evidence of bats suggests that they only use the Cosumnes River Bridge at night. Since all construction work will occur daytime the bats should not be affected by the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

It is recommended that the following avoidance and minimization measures be adhered to:

- The removal of any woody vegetation (trees and shrubs) required for the project shall be completed between September 1st and February 14th, prior to project construction. This time period is considered to be *outside* of the predicted nesting season for raptors and migratory birds. Vegetation removal outside this time period may not proceed until a survey by a qualified biologist determines that no nests are present or in use.
- If woody vegetation removal, construction, structures work, grading, or other project-related improvements are scheduled during the nesting season of protected raptors and migratory birds (February 15th to August 31st), a focused survey for active nests of such birds will be conducted by a qualified biologist within 7 days prior to the beginning of project-related activities. If active nests are found; Caltrans will consult with USFWS, regarding appropriate action to comply with the MBTA, and with CDFW, to comply with provisions of the Fish and Game Code of California. If a lapse in project-related work of 7 days or longer occurs, another survey and, if required, consultation with USFWS and CDFW will be required before the work can be reinitiated.
- Exclusionary devices should be installed on structures that show evidence of supporting migratory birds colonies to discourage their use of the structures during construction. Exclusionary devices would be installed during the non-nesting season between September 1st and February 14th.

THREATENED AND ENDANGERED SPECIES

Regulatory Setting

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

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

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

Affected Environment

Biological Assessments for Valley Elderberry Longhorn Beetle (VELB), Giant Garter Snake (GGS), and Central Valley steelhead were all prepared in January of 2014.

Caltrans initiated formal consultation with the USFWS pursuant to Section 7 of the Endangered Species Act of 1973 (FESA) for the federally listed VELB and informal

consultation for GGS on February 4, 2014. Caltrans also initiated informal consultation with the USFWS pursuant to Section 7 of the FESA for the federally listed vernal pool fairy shrimp in July of 2014. Caltrans initiated informal consultation with the NMFS pursuant to Section 7 of the FESA on January 29, 2014 for the federally listed Central Valley steelhead trout. No critical habitat for any sensitive species was identified within the project area.

Valley Elderberry Longhorn Beetle

The Valley Elderberry Longhorn Beetle (VELB) (*Desmocerus californicus dimorphus*) was federally listed as a threatened species with critical habitat on August 8, 1980 (USFWS 1980). VELB is a moderately sized beetle that inhabits elderberry plants, which is the host plant for the beetle larvae (Barr 1991). VELB adults deposit their eggs in cracks or crevices of the bark of elderberry plants (USFWS 1984). Following hatching, the larva bores into the pith of the plant. When the larvae are ready to pupate, they work their way through the pith of the elderberry plant and create an emergence hole through the bark (USFWS 1984). The adult emerges from the stem or trunk one or two years later about the same time as the plants flower (USFWS 1984). Adults do not readily fly and can be difficult to locate due to their relative inactivity.

VELB are known to occur throughout the Central Valley from southern Shasta County to Fresno County (Barr 1991). It is endemic to riparian systems along margins of rivers, streams, and adjacent grassy savannas where its host plant commonly occurs. The species was recommended for delisting in September 2006 by the Sacramento Office of the Fish and Wildlife Service based upon an increased number of sightings in the Central Valley and the reduction of primary threats to the species (USFWS 2006b).

The project area contains twenty-six elderberry shrubs. Of the twenty-six, fifteen will be impacted by construction activities. Caltrans has determined that the proposed project may affect, and is likely to adversely affect VELB.

Giant Garter Snake

The Giant Garter Snake (GGS) (*Thamnophis gigas*) is a federal and State threatened species. Giant garter snakes inhabit marshes, sloughs, ponds, small lakes, low gradient streams, and other waterways. This species also frequents agricultural wetlands such as irrigation and drainage canals and rice fields, and their adjacent uplands. Essential habitat components consist of the following components: 1) adequate water during the snake's active period (i.e., early spring through mid-fall) to provide a prey base and cover; 2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat; 3) upland habitat for basking, cover, and retreat sites; and 4) higher elevation uplands for cover and refuge from flood waters. Upland habitat for the giant garter snake includes upland areas within 200 ft of aquatic habitat (USFWS 1999b).

Giant garter snakes inhabit small mammal burrows and other soil crevices above prevailing flood elevations throughout its winter dormancy period. Giant garter snakes typically select burrows with sunny exposure along south and west facing slopes. The breeding season extends through March and April, and females give birth to live young from late July through early September. Young immediately scatter into dense cover and absorb their yolk sacs, after which they begin feeding on their own. GGS feed primarily on small fishes, tadpoles, and frogs.

Current threats that contribute to the decline of GGS throughout its range are habitat loss, habitat fragmentation, predation by introduced species, parasites, and water pollution. Habitat loss and fragmentation are commonly caused by flood control activities and changes in agricultural and other land management practices.

No essential GGS habitat components occur within the project area.

- The Cosumnes River, within the project area, is dry during the majority of the GGS active season. On average the Cosumnes River is dry from June to December (Table 5). The river is intermittent and cannot provide GGS a consistent source of aquatic prey.
- The Cosumnes River does not have a consistent enough source of water to support emergent herbaceous wetland vegetation that is essential for GGS cover.
- The river within the project area is surrounded by an approximate 300 foot wide riparian corridor which is unusable for GGS basking. GGS rarely travel more than 200 feet from an aquatic water source for upland habitat (USFWS 1999b).
- GGS are absent from large rivers with sand substrate which is present within the project area (USFWS 1999b).

An analysis of the suitability of the project site as GGS habitat is included in the Biological Assessment. This is because the southern tip of the project area is 900 feet from the well documented Badger Creek GGS population. However no habitat components occur within the project area thus GGS would likely not be present.

Vernal Pool Fairy Shrimp

An isolated vernal pool complex was identified at the northern extent of the project limits. Although this feature may provide potential habitat for Vernal Pool Fairy Shrimp (VPFS) (*Branchinecta lynchi*), it is unlikely this species would be present. The VPFS is a small (0.4 to 1.0 inches) crustacean that inhabits vernal pools and other seasonal water bodies in scattered locations throughout the Central Valley of California. VPFS (and fairy shrimp as a group) occur only in seasonal water bodies, and are never found in marine waters, streams, rivers, ponds, or other permanent water bodies. Typical pools that support VPFS are pools with clear to tea-colored water, most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands. However, this species is also known to occur in sandstone rock outcrops and alkaline vernal pools.

Potential habitat for federally listed large brachiopods is defined as any seasonally inundated depression that on average ponds water 2.0 inches or greater in depth for 14 or more consecutive days for VPFS and 30 or more consecutive days for vernal pool tadpole shrimp (*Lepidurus packardii*) (VPTS).

A botanical survey conducted on April 24, 2014 identified a concave depressions in the ground, approximately 400 feet north of the Cosumnes River (in one of the proposed staging area), that contained several species of plants that are considered indicators of vernal pools. Since the depression was shallow, (2.0 inches or less) and likely only contained ponded water for a very short amount of time, it was determined that this habitat only has the potential to support VPFS and not VPTS.

The vernal pool complex is located at the northern most extent of the project within an area that has been identified as a potential staging area for equipment and material during the construction of the project. No grading or excavation near or adjacent to this feature is being proposed. This is an isolated feature and is located directly adjacent to an access road that is regularly used by the current landowners to access the surrounding agricultural fields. Caltrans has determined that the proposed project may affect, but would not likely adversely affect VPFS.

Central Valley Steelhead

The Central Valley steelhead (*Oncorhynchus mykiss*) is a federally threatened species indigenous to western North America and the Pacific coast of Asia. They are the anadromous form of the rainbow trout. Steelheads, when in the ocean, are blue with a silver belly with small black spots on their back and most fins. Steelheads, while in freshwater, look green. At the extreme they can grow up to 45 inches in length and 40 pounds in weight; although on average they weigh less than 10 pounds. Steelheads' diet consists of small crustaceans, insects, and small fish.

The Cosumnes River has been documented to contain hatchery raised fish as well as wild populations of steelhead (Healy, Jeffres, and Kennedy 2013). In the Central Valley, steelhead begin entering the Delta in Late August and upstream migration may last through April with spawning generally occurring from December through May (Busby et al. 1996). Peak spawning activity generally occurs from January through March (Hallock et al. 1961). Only winter steelhead are found in the Central Valley (McEwan and Jackson 1996).

Wild and hatchery Central Valley steelhead occur in the Cosumnes River (Jeffres, Healy and Kennedy, 2013). Eight adult hatchery steelhead were identified at the Granlee Dam fish ladder in 2012 in addition to one yearling hatchery Central Valley steelhead caught in a screw trap in 2012 (Kennedy, 2013). Steelhead have been observed in the Cosumnes River in the vicinity of the project area between February and April (Jeffres 2013).

Due to the river being seasonally intermittent, the proposed project area can only be utilized as an adult migration corridor and juvenile emigration corridor. The timing in which the Cosumnes River dries varies from year to year but generally occurs from June to December (Table 5- Month of Year Cosumnes is Dry) (CDWR 2013). Historically groundwater has supported flows during late summer and early fall months. However, due to heavy agriculture use the lowered water table has created an extended period of low-flow and dry conditions (Moyle et al, 2003).

Another factor that can preclude steelhead from utilizing the project limits as habitat is the high percentage of invasive predator fish species in the alluvial river segment where the project is located. Spotted bass and largemouth bass were common in the warm, low-elevation pool habitats (Moyle et al, 2003). The reduction of native fish in the Cosumnes River is believed to be caused by the predation on early life history stages by non-native fish and by competitive interactions with size classes (Moyle et al, 2003).

Swainson's hawk

The Swainson's hawk is a state threatened species and federal species of concern. The Swainson's hawk (*Buteo swainsoni*) is a summer migrant in the Central Valley that breeds in riparian and oak savannah habitat and forages in adjacent grasslands or suitable grain or

alfalfa fields, or livestock pastures. The Swainson's hawk preys upon mice, gophers, ground squirrels, rabbits, large arthropods, amphibians, reptiles, birds, and rarely fish. It soars at various levels in search of prey, catching insects in flight. It may also walk on the ground to catch invertebrates and other prey. The hawk roosts in large trees but will roost on the ground if no trees are available. Breeding occurs from late March to late August, with peak activity occurring in late April through July. Nests are stick, bark, and fresh leaf platforms built in a tree or bush, or on a utility pole. Nests occur in open riparian habitat, in scattered trees, or in small groves in sparsely vegetated flatlands. Nests are usually found near water in the Central Valley, but they can also be found in arid regions. Clutch size is 2 to 4 eggs, with an incubation period of 25 to 28 days.

Nest surveys during the inactive season identified ten potential raptor nests within 500 feet and sixteen nests within a half mile of the Cosumnes River Bridge and the Cosumnes River Overflow Bridge. Swainson's hawk pairs were identified flying over the project area during their breeding season in July.

Environmental Consequences

VELB

There is one documented occurrence of VELB near the project area. Within the project area there are twenty-six elderberry shrubs which are potentially suitable habitat. Of the twenty-six, fifteen elderberry shrubs will be removed prior to construction. Eleven will be completely avoided by excluding them from the work area.

GGS

Due to the lack of essential GGS habitat and the unlikelihood that GGS would be present within the project area, it is anticipated that there would be very low potential for any impacts to GGS as the result of construction activities.

VPFS

A database search was done to identify any occurrences of VPFS within the vicinity of the project in order to determine the likelihood that VPFS would be present within the vernal pool feature. The closest and most recent occurrence was reported in 1994 and is approximately 1.5 miles to the south of the project. There are no recent occurrences and this species is presumed extinct in this area.

Based on the lack of current information supporting the presence of this species in the area, it is unlikely that they would occur within the project limits. Therefore, with the implementation of the avoidance and minimization measures identified in this document, this project is anticipated to have no impacts on VPFS.

Central Valley Steelhead

The types of impacts to Central Valley Steelhead that could result from construction activities include; increased erosion, sedimentation and turbidity; loss of shaded riverine aquatic (SRA) habitat; decreased water quality due to a potential for hazardous materials and chemical spills, and physiological effects associated with production of hydraulic pressure waves and noise during potential in-river pile driving activities.

Increase sediment, primarily in the form of fine sediment, has been reported to lead to changes in spawning bed composition, decreased benthic vertebrate abundance, increase stress responses in fish, and increased fish mortality (Burns 1970; Cordone and Kelly 1961; Moyle 2002; Redding et al. 1987; Reid and Anderson 1999).

Activities associated with stream channel alterations may include the removal of riparian vegetation and large woody debris (LWD). Riparian vegetation is critical to salmonid habitat. Riparian vegetation stabilizes stream banks, creates shade that provides temperature control, and increases the complexity of fish habitat providing fish refuge and prey habitat.

Widening of the Cosumnes River Bridge would result in the loss of some SRA habitat and streamside vegetation. Currently, there is a riparian corridor that surrounds the Cosumnes River Bridge. Implementation of the proposed project would result in the temporary loss of approximately 200 linear feet of existing exposed shoreline. Approximately 12-22 feet of the 200 linear feet SRA loss is permanent. This loss of shaded riverine is not expected to adversely affect steelhead ability to move through the project area. Construction of the widened bridge will create shaded habitat replacing the loss of approximately 0.008 acre of shade with 0.03 acre of shade.

Construction-related chemical spills could affect fisheries resources by increasing physiological stress, reducing biodiversity, altering primary and secondary production, and possibly causing direct mortality (NMFS and USFWS 1998).

In-stream activities associated with bridge construction may involve equipment and activities that could produce pressure waves, and create underwater noise and vibration, thereby temporarily altering in-stream conditions, relative to the basis of comparison. Hydrostatic pressure waves and vibration reportedly affect all life stages of fish (Washington et al. 1992). Other studies (Fitch and Young 1948; Teleki and Chamberlain 1978; Yeleverton et al. 1975) suggest that adverse effects to fish resulting from hydrostatic pressure waves and vibration are primarily a function of species morphology and physiology. Hydrostatic pressure waves could potentially rupture the swim bladders and other internal organs of all life stages of fish in the immediate construction area (Bonneville Power Administration 2002; Jones & Stokes Associates 2001; Washington et al. 1992).

The construction of the proposed project involves lengthening the bridge's pier walls located in the Cosumnes River which will result in approximately 0.025 acre of permanent fill in the water way.

Swainson's Hawk

No impacts to Swainson's hawks are anticipated with the implementation of the avoidance and minimization measures listed below.

Avoidance, Minimization, and/or Mitigation Measures

VELB

Credits will be purchased at a service approved bank to mitigation for the loss of habitat. Eleven of the 26 elderberry shrubs within and near the project area will not be removed or have their roots zones disturbed during construction. To protect these eleven remaining

shrubs the standard avoidance and minimization measures outlined in the USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* and the 1997 *Formal Programmatic Consultation Permitting Projects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office, California* (File # 1-1-96-F-156) between the USFWS and FHWA will be followed. The USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* defines a buffer area as the area within 100 ft of the dripline of any elderberry shrub. A core avoidance area is defined as the area within 20 ft of the dripline of any elderberry shrub. In areas that are within 100 ft of any elderberry shrub, construction-related disturbance will be minimized, and any areas that may be temporarily disturbed will be restored upon completion of construction.

The following avoidance measures will be implemented for all work occurring within 100 feet of Elderberry shrubs:

- Avoided shrubs will be shown on construction plans as environmentally sensitive areas. The contractor will be required to install fencing, to exclude the shrubs, before any work begins.
- Prior to construction, construction personnel will be educated about the status of the VELB, the importance of the elderberry shrubs and the consequences of damaging the shrubs.
- Signs will be placed on the exclusion fencing to warn workers not to encroach on the shrubs.
- Any disturbed ground within the buffer areas will be restored after construction is complete. The affected areas will be revegetated with native plants appropriate for the project location.
- Insecticides, herbicides, fertilizers, or other chemicals will not be used in core or buffer areas within the project limits.
- Caltrans' Best Management Practices (BMP) will be in place during construction and will serve to minimize soil erosion and airborne dust.

Based on the stem count of the fifteen elderberry shrubs that will be removed, thirty-nine credits would be required to mitigate for the loss. Caltrans has decided against transplanting due to access and thus will buy mitigation credits at the appropriate ratio, typically 3:1, resulting in one hundred and seventeen credits. The credits will be purchased at an agency approved bank.

The proposed project will not result in cumulative impacts to VELB.

GGS

Due to lack of habitat and the unlikelyhood that GGS would be present within the project area, implementation of all of the standard avoidance and minimization measures for GGS will not be necessary, and no mitigation is proposed. A construction window will not be identified for this project specific to GGS. However, the work window to be implemented for the avoidance and minimization of impacts to Central Valley steelhead, identified in the

previous section, will be sufficient to protect any GGS, however unlikely, that may enter the project area.

VPFS

All staging for this project will be restricted from entering the vernal pool complex. All project mapping will identify the west side of the access road, in the potential staging area north of the Cosumnes River, as an “environmentally sensitive area” and will be fenced off to prevent any equipment or vehicles from entering. All standard Caltrans water quality BMPs, including the placement of straw waddles around this feature to prevent any runoff from entering, will also be implemented.

It is anticipated that there will be no impacts to this species; therefore, Caltrans does not propose mitigation for VPFS.

Central Valley Steelhead

The construction of the proposed project will result in approximately 0.025 acre of permanent fill in the water way. This will be mitigated through the purchased of credits at a NMFS approved mitigation bank.

Although the Central Valley steelhead is not likely to be present within the project limits, the following avoidance and minimization efforts will be incorporated into the project:

- All in-water work shall be restricted to when the Cosumnes River is dry and/or within the Salmonid work window (June 15- October 15). This is a period when no listed salmonids will be present.
- Clearing will be confined to the minimal area necessary within 200 feet of aquatic habitat to facilitate construction activities.
- Standard construction BMPs will be implemented throughout construction, in order to avoid and minimize adverse effects to the future water quality within the project impact area. All disturbed soils will undergo erosion control treatment immediately after construction is terminated. Appropriate erosion control measures will be used (e.g., hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from project sites.
- Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials will not be allowed to enter the river. A plan for the emergency clean up of any spills of fuel or other material will be available when construction equipment is in use.
- Equipment will be refueled and serviced at designated construction staging areas. All construction material and fill will be stored and contained in a designated area that is located away from channel to prevent transport of materials into adjacent streams.
- Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease, oil, leaking hydraulic fluid, or fuel.

- Building material storage areas containing hazardous or potentially toxic materials such as petroleum products will be located outside of the 100 year flood zone, have an impermeable membrane between the ground and the hazardous material, and be bermed to prevent the discharge of pollutants to ground water and runoff water.
- Shaded riverine aquatic habitat or natural woody riparian habitat will be avoided or preserved to the maximum extent practicable. Any disturbed riparian vegetation should be replanted at the highest ratio conducive to the space available with native trees and shrubs, with appropriate irrigation, care, and monitoring to ensure that healthy riparian and shaded riverine aquatic habitat is fully established.
- Rapidly sprouting plants, such as willows, will be cut off at ground level and root systems left intact.
- Upon completion of construction, disturbed areas will be re-vegetated with native grasses.
- Construction personnel will participate in a NMFS approved worker environmental awareness program. A qualified biologist will inform all construction personnel about the life history of Central Valley steelhead and its potential presence in the project area as well as explain the state and federal laws pertaining to protecting this species and its habitat.
- Pile driving will not occur within 50 feet of the Cosumnes River outside of the Salmonid work window.

The proposed project will not result in cumulative impacts to Central Valley Steelhead.

Swainson's Hawk

The following measures would be implemented to avoid impacts to Swainson's hawks:

- Preconstruction surveys will be conducted no less than 14 days and no more than 30 days before the project starts.
- If an active nest is found a qualified biologist will monitor the active nest during construction activities to ensure that no interference with the hawks' breeding activities occurs.
- Removal of any trees within the project area should be done outside of the nesting season, however, if a tree needs to be removed during nesting season a qualified biologist will inspect the tree prior to removal to ensure that no nests are present.

No impacts to Swainson's hawk are anticipated, therefore no compensatory mitigation is proposed.

INVASIVE SPECIES

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the

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

Affected Environment

The project area was evaluated for the presence of invasive species based on the California Noxious Weed List (CDFA 2010), the California Invasive Plant Council List (California Invasive Plant Council 2010), and the USDA Federal Weed List (USDA 2010). Some invasive plant species present on the project site include: fennel (*Foeniculum vulgare*), star thistle (*Centaurea solstitialis*), white top (*Lepidium latifolium*), madusa head (*Taeniatherum caput-medusae*), and himalayan blackberry (*Rubus armeniacus*).

Environmental Consequences

None of the species on the California list of invasive species is used by Caltrans for erosion control.

Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas.

To minimize the risk of introducing additional non-native species into the area, only native plant species appropriate for the project area will be used in any erosion control or re-vegetation seed mix or stock.

Construction Impacts

TEMPORARY AIR QUALITY AND NOISE IMPACTS DURING CONSTRUCTION

Air Quality

The construction of roadway improvements could generate temporary air quality impacts (e.g., increase in diesel fumes and dust) and noise from heavy equipment operations. From a human environment perspective, the impacts would be most pronounced in the parts of the project area where developed land uses are adjacent or near the project site.

This project is exempt from all air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) §93.126, subsection **“Safety”**. No further analysis is required.

The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment.

Fugitive dust, sometimes referred to as windblown dust or PM₁₀, would be the primary short-term construction impact, which may be generated during excavation, grading and hauling activities. However, both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature. Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Noise

This project is considered a Type III project and it is exempt from traffic noise impact analysis under Title 23, Part 772 of the Code of Federal Regulations (23CFR772). Therefore, noise abatement is not considered.

FHWA requires traffic noise analysis for Type I projects which is defined as a proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway where there is either a substantial horizontal or substantial vertical alteration, or an addition of a through-traffic lane(s).

Substantial Vertical Alignment alteration includes when a project removes shielding thereby exposing the line-of-sight between the receptor and the traffic noise source. This is done by altering either the vertical alignment of the highway or the topography between the highway traffic noise source and the receptor. There are no natural or man-made shielding in the project limit that breaks the line of sight between source of noise (highway) and a receptor. Therefore, the alteration of vertical alignment with regard to traffic noise is not considered substantial for this project.

Substantial Horizontal Alignment alteration is defined by a project that halves the distance between the traffic noise source and the closest receptor between the existing conditions to the future build condition.

During construction noise may be generated from the contractors' equipment and vehicles. Caltrans requires the Contractor to conform to the provisions of Standard Specification, Section 14-8.02 "Noise Control".

- Do not exceed 86 dBA LMax at 50 feet from the job site activities from 9 p.m. to 6 a.m.”.
- Equip an internal combustion engine with manufacturer-recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

Chapter 3 – Comments 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 consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings, interagency coordination meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

The Initial Study with Proposed Mitigated Negative Declaration was made available for public and agency review and comment for 30 days. Caltrans has ensured that the document was provided to all appropriate parties and agencies, including the following: 1) Responsible agencies, 2) Trustee agencies that have resources affected by the project, 3) other state, federal and local agencies which have regulatory jurisdiction, or that exercise authority over resources which may be affected by the project, 4) the general public. Copies of the document were made available at the Caltrans District 3 Office of Environmental Management (M-1) located at 703 B St., Marysville, CA 95901 and at the Elk Grove Public Library, 8900 Elk Grove Blvd, Elk Grove, CA 95624, and via the Internet at www.dot.ca.gov/dist3/departments/envinternet/sacdocs/sacco.html

Comments and responses begin on page 52.



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

December 2, 2014

Stefan Sutton
California Department of Transportation, District 3
703 B Street
Marysville, CA 95901

Subject: State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project
SCH#: 2014102072

Dear Stefan Sutton:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 1, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse 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."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed 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

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Document Details Report
State Clearinghouse Data Base**

SCH# 2014102072
Project Title State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project
Lead Agency Caltrans #3

Type MND Mitigated Negative Declaration
Description Caltrans proposes to install seismic retrofit catcher/restrainer systems at the expansion joints of the following four bridges: Cosumnes River (24-0020R/L) and Cosumnes River Overflow Bridges (24-0021R/L). On Dillard Road Overcrossing (24-0163) non-standard bridge railings will be replaced on both sides of the bridge, remove asphalt concrete (AC) surfacing, sidewalk/curb, and place polyester concrete deck overlay.

Lead Agency Contact

Name Stefan Sutton
Agency California Department of Transportation, District 3
Phone 530 741 7156 **Fax**
email
Address 703 B Street
City Marysville **State** CA **Zip** 95901

Project Location

County Sacramento
City Elk Grove
Region
Lat / Long 38° 21' 6.78" N / 121° 20' 24.93" W
Cross Streets Dillard Road
Parcel No. State Highway
Township **Range** **Section** **Base**

Proximity to:

Highways Hwy 99
Airports
Railways UPRR
Waterways Cosumnes River
Schools
Land Use State Highway

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Flood Plain/Flooding; Geologic/Seismic; Noise; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Air Resources Board; Air Resources Board, Transportation Projects; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Date Received 10/29/2014 **Start of Review** 10/29/2014 **End of Review** 12/01/2014

Comment 1.



Central Valley Regional Water Quality Control Board

24 November 2014

Stefan Sutton
California Department of Transportation
Office of Environmental Management, M-1
Marysville, CA 95901

CERTIFIED MAIL
7014 2120 0001 3978 2968

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, STATE ROUTE 99 BRIDGE RAIL UPGRADE, SEISMIC RETROFIT, WIDENING, AND SCOUR REPAIR PROJECT, SCH# 2014102072, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 29 October 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project, located in Sacramento County.

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.

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/constpermits.shtml.

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER
11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley



Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

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

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.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 (USACOE). If a Section 404 permit is required by the USACOE, 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 USACOE at (916) 557-5250.

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE 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 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.

Waste Discharge Requirements

If USACOE 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 will 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 Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program.

There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board’s website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.
2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently \$1,084 + \$6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory

Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or 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 *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.



Trevor Cleak
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Response 1: As noted in the CVRWQCB's comment letter, this project will require a Section 401 Certification under the Clean Water Act (CWA) and will also require a 404 Permit issued by USACE; the 401 Certification and 404 Permit are usually issued in combination with one another. Caltrans will obtain and implement those permits/certifications for the project. Caltrans Statewide NPDES Permit CAS No. 000003 (Order No. 99-06-DWQ) will be adhered to with the implementation according to their standards. Most of this detailed information is in the Water Quality and Storm Water Runoff and Wetlands and Other Waters section of this document.

Comment 2.

From: [Torres, Juan@Wildlife](mailto:Torres_Juan@Wildlife)
To: [Sutton, Stefan T@DOT](mailto:Sutton_Stefan_T@DOT)
Cc: [Wildlife R2 CEQA](#)
Subject: State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project Comments (SCH# 2014102072)
Date: Tuesday, November 25, 2014 2:19:15 PM
Attachments: [image001.png](#)

The California Department of Fish and Wildlife (CDFW) appreciates the opportunity to comment on the Initial Study with Proposed Mitigated Negative Declaration (IS/MND) for the State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project (Project) [State Clearinghouse No. 2014102072]. CDFW is responding to the IS/MND as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act [CEQA] Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration 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).

1. Cosumnes River Ecological Reserve (Reserve) managed by CDFW is present immediately adjacent to the eastern Project limits. Please clarify if the Project will impact the reserve and/or if it will need access to the property. A Right of Entry Permit will be required if Caltrans needs to access the Reserve. } 2-A

2. Project description includes the installation of rock slope protection. Rock slope protection (RSP) can be considered a permanent impact to CDFW jurisdictional areas. Please note that the RSP should be installed in coordination with responsible agencies in order to avoid additional impacts to listed species. The IS/MND shall include the analysis of potential impacts due to the installation of RSP. Additional avoidance, minimizations, and/or mitigation measures may be required as a result of this analysis. } 2-B

3. Wetlands and Other Waters Section. Information regarding project impacts to areas under CDFW jurisdiction is missing from this section. Project impacts to areas under CDFW jurisdiction should be disclosed in this section of the IS/MND. An accompanying map showing the areas of impact is recommended. The IS/MND should not defer mitigation measures to future regulatory discretionary actions, such as a Lake or Streambed Alteration (LSA) Agreement. Please note that as a responsible agency under CEQA, the Department must rely on the CEQA analysis for the project when exercising our discretion after the lead agency to approve or carry out some facet of a proposed project, such as the issuance of an LSA Agreement. Therefore, the IS/MND should include specific enforceable measures to be carried out onsite or offsite that will avoid, minimize and/or mitigate for project impacts to the natural resources. } 2-C
} 2-D
} 2-E

If you should have any questions pertaining to these comments, please contact me at (916) 358-2951 or Juan.Torres@wildlife.ca.gov

Sincerely,

Juan Lopez Torres
Senior Environmental Scientist (Specialist)

**CALIFORNIA DEPARTMENT OF
FISH and WILDLIFE** 
**NORTH CENTRAL REGION
HABITAT CONSERVATION PROGRAM**
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Response 2.

Response 2-A: All work on the east side of the project area will be confined to Caltrans right-of-way. No work will occur within the boundary of the Reserve.

Response 2-B: There is a potential for the new footing at Pier 7 to be backfilled with native river material or large rocks/RSP. The amount of fill will not affect river flow rates and will prevent future scour, erosion, and sedimentation at Pier 7. The type, size and amount of fill material will be determined during the final design phase and specific information will be included in the CDFW 1602 Streambed Alteration Agreement Application. As stated on page 38, avoidance, minimization and/or mitigation measures will be included as required in consultation with CDFW and other appropriate resource agencies during the permitting process.

Response 2-C: In this document Waters of the U.S. are considered to be under the jurisdiction of CDFW (as well as the USACE) and CDFW jurisdiction is stated in the last paragraph on page 36. Impacts to CDFW jurisdictional areas are discussed in the following sections:

- The *Environmental Consequences* section for *Great Valley Valley Oak Riparian Forest* under the *Natural Communities* heading, page 34.
- The *Environmental Consequences* section under the *Wetlands and Other Waters* heading, page 37.

Response 2-D: Maps showing project impacts to CDFW jurisdictional areas will be included as part of the 1602 Streambed Alteration Agreement Application that will be submitted to CDFW during the permitting process following the final design of the project.

Response 2-E: Mitigation measures for resources under CDFW jurisdiction have been discussed in the IS/MND; please refer to the following sections of this document:

- The *Water Quality and Storm Water Runoff* section of this document, page 22. The *Great Valley Valley Oak Riparian Forest; Avoidance, Minimization, and/or Mitigation Measures* section under the *Natural Communities* heading, page 35
- The *Avoidance, Minimization, and/or Mitigation Measures* section under the *Wetlands and Other Waters* heading, page 38

Comment 3.

STATE OF CALIFORNIA

EDMUND G. BROWN JR., Governor

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202



Established in 1938

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from Voice Phone 1-800-735-2922

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December 1, 2014

File Ref: SCH #2014102072

Stefan Sutton, Associate Environmental Planner
Office of Environmental Management, M-1
Caltrans – District 3
703 B Street
Marysville, CA 95901

Subject: Initial Study/Proposed Mitigated Negative Declaration (MND) for State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project, Sacramento County

Dear Mr. Sutton:

The California State Lands Commission (CSLC) staff has reviewed the subject MND for the State Route 99 Bridge Rail Upgrade, Seismic Retrofit, Widening, and Scour Repair Project (Project), which is being prepared by the California Department of Transportation (Caltrans). Caltrans, a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign lands, the CSLC will act as a responsible agency.

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of

all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

After reviewing the MND, CSLC staff has determined that portions of the proposed Project occur on ungranted sovereign lands under the jurisdiction of the CSLC. Therefore, the Project will require formal authorization from the CSLC for the use of this sovereign land for any parts of the Project encroaching on State owned lands, and, pursuant to the provisions of Section 101.5 of the California Streets and Highways Code, an application must be submitted. Please contact Al Franzoia, Public Land Management Specialist (see contact information below), for further information.

Project Description

Caltrans proposes to retrofit four State Route 99 bridges in Sacramento County. As CSLC staff understands it, the Project would include the following components:

1. Cosumnes River Bridge (24-0020R)- Install seismic retrofit catcher/restrainer systems at the expansion joints.
2. Cosumnes River Bridge (24-0020L)- Install seismic retrofit catcher/restrainer systems at the expansion joints, widen shoulders to conform to adjacent roadway sections, replace approach slabs, replace approach/transition railings, replace non-standard bridge railings, remove asphalt concrete surfacing, place polyester concrete deck overlay, retrofit the footing at Pier 7 to remediate scour that is occurring at the bottom of the pier, enlarge existing footing, add additional piling around the existing footing and the new piles, and encase the existing footing in a larger steel-reinforced-concrete footing.
3. Cosumnes River Overflow Bridge (24-0021R/L)- Install seismic retrofit catcher/restrainer systems at the expansion joints, widen shoulders to conform to adjacent roadway sections, replace approach slabs, replace approach/transition railings, replace nonstandard bridge railings, remove asphalt concrete surfacing, and place polyester concrete deck overlay.
4. Dillard Road Overcrossing Bridge (24-0020L)- Replace non-standard bridge railings on both sides of the bridge, remove asphalt concrete surfacing from the sidewalk/curb, and place polyester concrete deck overlay.

Environmental Review

CSLC staff requests that Caltrans consider the following comments on the MND.

General Comments

1. Project Description: The Project description on pages 7-8 lists the construction activities that will take place; however, it does not explain how these activities will be carried out in sufficient detail for CSLC staff to determine the scope and extent of potential impacts or whether Caltrans' analyses are complete. For example, it is not clear how 68 new steel or concrete piles (60 to 68 feet in length) will be driven into the ground for the Cosumnes River Bridge (page 7). CSLC staff requests that additional critical details be included in the Project description such as, but not limited to, answering the following unresolved questions in order to facilitate meaningful environmental review of potential impacts, mitigation measures, and alternatives:

- How will the piles be driven into the ground? Will a vibratory hammer, impact hammer, or both be used?
- How deep will the piles be driven into the ground?
- How long will it take to drive each pile?
- What measures will be taken to prevent water contamination or sediment plumes?
- How water will be diverted from the proposed pile locations? How much sediment will be removed or disturbed?
- Where will the materials be disposed?
- What will be the maximum area of impact?
- What months of the year will proposed work be carried out?
- How will or will not the proposed activities impact the Cosumnes River Preserve?

3-A

3-B

2. Figures/Drawings: The drawings in Figures 1-4 (pages 9-15) are not legible because of the size of text, and they are difficult for a non-engineer to understand without an explanation. The MND would benefit from making these drawings legible, and including explanations for each of these Figures in order to better guide a non-engineer's understanding of the Project.

3-C

3. Deferred Mitigation: The avoidance and minimization measure discussion on page 33 for the work area (which can also be a flood plain as explained on page 28) appears to consist of the following:

"[t]emporary [Best Management Practices] would be implemented during construction activities to avoid erosion and sedimentation, prevent off site contamination by construction materials, reduce the pollutants in storm water discharges through construction, reduce storm water discharges from the construction site and reduce impacts on water bodies once the [P]roject is complete."

3-D

Because the MND does not identify or describe exactly what these BMPs would be, CSLC staff is prevented from independently evaluating their efficacy; as a result, these BMPs appear to constitute improper deferral of mitigation. CSLC staff requests that any measures proposed to reduce or avoid an impact be described in detail, clearly identifying *how* each measure serves to reduce an impact; the

measures should be presented as either specific, feasible, enforceable obligations, or presented as formulas containing "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (State CEQA Guidelines, §15126.4, subd. (b)).

3-D cont.

4. Mitigation Monitoring and Reporting Plan: The MND should make "Appendix C. Minimization and/or Mitigation Summary" (pages 77-84) into a table format, and identify it as a "Mitigation Monitoring and Reporting Plan" (MMRP). Please identify potential impacts, number both potential impacts and mitigation measures, identify entities responsible for implementing these measures, and identify the time when these measures will be implemented in the MMRP (see State CEQA Guidelines, § 15097).

3-E

5. Staging Area: Page 50 of the MND briefly states the location of the potential staging area for equipment and material during the construction of the Project. However, it is not clear from the MND where this area will be located. The MND would benefit from including a map of the staging area, explanation of the site characteristics, and possible environmental impacts to the site from making it a staging area (see "Project Description" comment above).

3-F

CSLC Jurisdiction

6. CSLC Jurisdiction: The "Permits and Approvals Needed" table on page 18 does not list CSLC as one of the permitting agencies. Because permission from the CSLC is required for the Project to occupy sovereign lands, CSLC staff requests that Caltrans add CSLC to this table.

3-G

7. Title to Resources: Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant. CSLC staff requests that page 27 state that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC. CSLC staff requests that Caltrans consult with Assistant Chief Counsel Pam Griggs (see contact information below) should any cultural resources on state lands be discovered during construction of the proposed Project.

3-H

8. Public Access: Because public access and recreation on navigable waters are protected under the Public Trust, the MND on pages 72 and 77 should explain how the proposed Project sites are used by members of the public and whether Project activities will affect these uses. If a proposed Project site is currently being used by the public for recreational activities such as kayaking, canoeing, swimming, fishing, bird watching etc., then appropriate mitigation measures (see "Deferred Mitigation" comment above) should be proposed to reduce the adverse impacts associated with restricting public access. CSLC staff recommends posting signage (in advance) at and around the proposed Project site in order to minimize the impacts to the public.

3-I

Biological Resources

9. Spill Contaminant Contingency Plan: Page 54 states that "...petroleum products, chemicals, or other deleterious materials will not be allowed to enter the river. A plan for the emergency cleanup of any spills of fuel or other materials will be available when construction equipment is in use." However, it is not clear what measures will be taken to prevent such contaminants from entering the water. CSLC staff requests that a Spill Contaminant Contingency Plan (Plan) be prepared for this Project. Not having such a Plan puts the Project site (flood plain) at a higher risk of possible spill incidents. CSLC requests that this Plan be prepared, and submitted with Caltrans' CSLC lease application.

3-J

10. Cosumnes River Preserve: The MND does not appear to discuss how carrying out the proposed Project, which will result in approximately 0.117 acre of permanent impacts and 1.018 acres of temporary impacts to valley oak riparian forest habitat due to widening of the Cosumnes River Bridge, could adversely affect the Cosumnes River Preserve (Preserve), which is just downstream from the Project site. The Preserve can be seen on the map available at the following link http://www.cosumnes.org/about_crp/Preserve%20Parcel%20Map.pdf. Page 41 of the MND further explains that the riparian vegetation provides nesting habitat to migratory and resident birds, provides shade and temperature control to nearby aquatic resources, and provides a safe migration corridor to a variety of wildlife. CSLC staff requests that potential impacts to the Preserve be discussed in the Final MND, along with a description of consultation with Preserve representatives. If impacts are significant, adequate mitigation measures (see "Deferred Mitigation" comment) should be proposed in the Final MND.

3-K

11. Underwater Noise: Page 52 briefly explains the in-stream activities associated with bridge construction involving equipment and activities that could result in physiological effects on fish associated with production of hydraulic pressure waves and noise. However, the MND does not identify or indicate the expected sound pressure levels (SPLs) resulting from pile driving; as a result, CSLC staff is unclear whether the SPLs will be under the threshold identified by the Fisheries Hydroacoustic Working Group. Early consultations with California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service should also be explained in the MND, and the MND should state what measures will be taken to minimize these potential impacts on sensitive species.

3-L

3-M

Climate Change

12. Greenhouse Gases: The greenhouse gas (GHG) emissions analysis on page 39 does not appear to calculate GHG emissions from equipment use, and vehicle trips for carrying out proposed Project-related activities. A GHG emissions analysis that is more consistent with the California Global Warming Solutions Act (Assembly Bill [AB] 32) and required by the State CEQA Guidelines should be added to the MND. CSLC recommends including a table identifying the equipment that will be

3-N

used, duration of equipment use, and GHG emissions for each equipment to calculate total GHG emissions that will be generated from this Project. Then, these calculated total GHG emissions should also be compared to the thresholds for this region.

} 3-N cont.

Thank you for the opportunity to comment on the MND for the Project. As a responsible and trustee agency, the CSLC will need to rely on the Final MND for the issuance of any approvals as specified above and, therefore, we request that you consider our comments prior to adopting the MND.

Please send copies of future Project-related documents, including electronic copies of the Final MND, MMRP, and Notice of Determination (NOD), when they become available, and refer questions concerning environmental review to Afifa Awan, Environmental Scientist, at (916) 574-1891 or via e-mail at Afifa.Awan@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Assistant Chief Counsel Pam Griggs at (916) 574-1854 or via email at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Al Franzoia, Public Land Management Specialist, at (916) 574-0992 or via email at Al.Franzoia@slc.ca.gov.

Sincerely,



Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Franzoia, LMD, CSLC
J. DeLeon, DEPM, CSLC
P. Griggs, Legal, CSLC
E. Milstein, Legal, CSLC

Response 3.

Response 3-A: The details of how the piles will be constructed will be determined during the final design phase of the project. Both the engineering requirements and the Contractor's means and methods will determine the methods and duration of the pile construction.

For information on water quality, refer to the *Water Quality and Storm Water Runoff* section that starts on page 22 of this document.

Installation of the piles will not require a water diversion.

Excess soil material will be used within the project area for roadway construction or disposed in accordance with all state, local, and federal laws and regulations.

Response 3-B: The time frames for when work will be performed can be referenced within this document. Refer to the following items:

- Page 39, bullet points under the *Avoidance, Minimization, and/or Mitigation Measures* heading for *Animal Species*
- Page 47, first bullet point under the *Avoidance, Minimization, and/or Mitigation Measures* heading for *Central Valley steelhead*

All work on the east side of the project area will be confined to Caltrans right-of-way. No work will occur within the boundary of, nor result in impacts to the Cosumnes River Preserve.

Response 3-C: Figures 1-4 are described and referred to on pages 4 and 5 of this document. For ease of viewing the 8.5"x11" versions of the figures have been replaced with larger format versions.

Response 3-D: A project specific Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to construction and maintained by qualified construction personnel. Erosion and sediment control measures will be implemented as required by the SWPPP. This project will not result in a significant impact to water quality and therefore will not require mitigation for water quality; Best Management Practices (BMPs) are avoidance and minimization measures.

Response 3-E: Appendix C follows a standard format for Caltrans' documents. A mitigation and monitoring plan for long term mitigation requirements will be developed during the final design phase of the project.

Response 3-F: The described staging areas are only potential sites and are not mandatory for the contractor to use. For staging areas selected by the Contractor, Caltrans will require the Contractor to provide environmental documentation prepared by appropriately qualified environmental specialists, and obtain or update all necessary permits, licenses, and agreements.

Response 3-G: The Permits and Approvals Needed table has been amended to include the California State Lands Commission permit.

Response 3-H: Background research has not indicated a potential to unearth cultural resources, such as shipwrecks or submerged archaeological sites, during construction. Caltrans has standard procedures to follow in the event that cultural resources are discovered during construction. If cultural materials are discovered within the CSLC jurisdiction Caltrans will consult with CSLC staff as requested.

Response 3-I: The project area does not contain any public access for recreational uses. The project area consists of State owned right-of-way and private property.

Response 3-J: Spill containment, reporting, and remediation measures will be covered in the Contractor supplied SWPPP; this is a standard process for all Caltrans projects. This information will be addressed, as requested by CSLC, during the lease application process.

Response 3-K: The proposed project will not result in impacts to the Cosumnes River Preserve. Throughout the project approval and permitting process, Caltrans will work with the California Department of Fish and Wildlife and other regulatory agencies regarding impacts to riparian habitat and other biological resources as required.

Response 3-L: Potential impacts to listed species of fish from hydraulic pressure waves and noise will be avoided during construction. Please refer to the *Avoidance, Minimization, and/or Mitigation Measures* for *Central Valley steelhead* on pages 47 and 48 of this document.

Response 3-M: The Biological Opinions resulting from Section 7 consultation with the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service are included in Appendix A. These consultations are described on page 40 in the Threatened and Endangered Species section of this document.

Response 3-N: The proposed project is not a vehicle capacity increasing project and a quantitative analysis of emissions is not required. Further, it is not possible at the environmental document stage to know which specific equipment a contractor will use. As stated on page 40 under Greenhouse Gas Reduction Measures, AB 32 Compliance, Caltrans is actively involved in the Governor's Climate Action Team and ensures that measures are included in transportation projects so that requirements from local Air Pollution Control Districts and the California Air Resources Board are followed. In addition, temporary air quality impacts during construction are discussed on pages 49-50 in the section titled Construction Impacts.

Chapter 4 – List of Preparers

The following Caltrans District 3 staff contributed to the preparation of this Initial Study:

Stefan Sutton, Associate Environmental Planner. Contribution: Environmental Coordinator and Document Writer

Susan D. Bauer, Senior Environmental Planner. Contribution: Environmental Branch Chief

William Larson, Associate Environmental Planner (Archaeology). Contribution: Historic Property Survey Report

Christopher Kuzak, Associate Environmental Planner (Architectural Historian). Contribution: Historic Resources Evaluation Report

Hanna Harrell, Associate Environmental Planner (Natural Sciences). Contribution: Project Biologist, Natural Environment Study (NES), Biological Assessment

Kelli Angell, Associate Environmental Planner (Natural Sciences). Contribution: Project Biologist, Natural Environment Study (NES), Biological Assessment

Maureen Doyle, Associate Environmental Planner (Natural Sciences). Contribution: Project Biologist, Natural Environment Study (NES), Biological Assessment

Alicia Beyer, Transportation Engineer. Contribution: Hazardous Waste Initial Site Assessment (ISA)

Saeid Zandian, Air/Noise Specialist, Contribution: Air/Noise Study

Sean Cross, Transportation Engineer. Contribution: Water Quality Study

Kathleen Grady, Landscape Architect. Contribution: Visual Impact Assessment

Douglas Lange, Project Manager. Contribution: Project Manager

Ali Kiani, Sr. Transportation Engineer. Contribution: Project Design

Nasim Hasan, Transportation Engineer. Contribution: Project Design, Floodplain Hydraulics Study

Lewis Shen, Sr. Bridge Engineer. Contribution: Structural Advance Planning Study Design

Jalwat Ahmad, Transportation Engineer: Utilities Conflicts Study

APPENDICES

Appendix A. Interagency Coordination

The Biological Opinions resulting from Section 7 consultation with the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service are included in this appendix. These consultations are described on page 40 in the Threatened and Endangered Species section of this document.



United States Department of the Interior



In Reply Refer to:
08ESMF00-
2014-F-0235-1

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

JUL 25 2014

Ms. Susan D. Bauer
Chief, Environmental Management, M-1 Branch
California Department of Transportation, District 3
703 B Street, P.O. Box 911
Marysville, California 95901-0911

Subject: Consultation on the Proposed State Route 99 Seismic Bridge Retrofit Project,
Sacramento County, California (Caltrans Fed ID # 0312000069)

Dear Ms. Bauer:

This letter is in response to the California Department of Transportation's (Caltrans), June 12, 2014, request for initiation of consultation with the U.S. Fish and Wildlife Service (Service) on the proposed State Route 99 Seismic Bridge Retrofit Project (proposed project), in Sacramento County, California. Your request, which included the June 2014 amended *State Route 99 Seismic Widening Bridge Rail Upgrade Biological Assessment* (biological assessment), was received by the Service on June 13, 2014. The biological assessment presents an evaluation of the proposed project's effects on species federally-listed under the Endangered Species Act of 1973, as amended (16 U.S.C. §1531 *et seq.*) (Act).

The federal action we are consulting on is the proposed seismic retrofit of two bridges and one overcrossing along State Route 99 (SR 99), over the Cosumnes River (Bridge # 24-0020L), Cosumnes River Overflow (Bridge # 24-0021L), and Dillard Road (Overcrossing # 24-0163) by Caltrans in coordination with the Federal Highway Administration (FHWA). The proposed project is receiving federal funding through FHWA and Caltrans has assumed FHWA's responsibilities under the Act for this consultation in accordance with Section 1313, Surface Transportation Project Delivery Program, of the Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012. The MAP-21 is described in the National Environmental Policy Act assignment Memorandum of Understanding between FHWA and Caltrans (effective October 1, 2012) and codified in 23 U.S.C. 327. This response is provided under the authority of the Act, and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

Pursuant to 50 CFR §402.12(j), you submitted the biological assessment for our review and requested our concurrence with the findings presented therein, while also concurrently initiating formal consultation pursuant to 50 CFR §402.14(c). Based on the findings presented in the biological assessment, your consultation letter concludes that the proposed project may affect, and is likely to adversely affect the federally-listed as threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (beetle). You requested that the proposed project be appended to

the Service's March 11, 1997, *Formal Programmatic Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office, California* (beetle programmatic) (Service File #1-1-96-F-156). The findings also conclude that the proposed project may affect, but is not likely to adversely affect the federally-listed as threatened giant garter snake (*Thamnophis gigas*) (snake) and vernal pool fairy shrimp (*Branchinecta lynchi*) (fairy shrimp). The proposed project is not within designated or proposed critical habitat for any federally-listed species.

In considering your request, we based our evaluation of your findings on the following: (1) your June 12, 2014, letter initiating consultation; (2) the *State Route 99 Seismic Widening Bridge Rail Upgrade Biological Assessment*, amended June 2014, prepared by Caltrans, and received by the Service on June 13, 2014; (3) telephone and email correspondence between the Caltrans and the Service; and (4) other information available to the Service.

Giant Garter Snake

After reviewing all the available information, we concur with your determination that the proposed project may affect, but is not likely to adversely affect the snake. The proposed project reached the 'may affect' level, and the subsequent requirement for a biological assessment, due to the fact that the proposed project is within the known range of the snake and snakes may be present in the action area. The southern tip of the action area is 900 feet from the known snake population at Badger Creek; however, habitat within the action area is not suitable for the snake. The Cosumnes River is dry during the majority of the active season for the snake and does not support emergent aquatic vegetation. In addition, the river is surrounded by approximately 300 feet of riparian vegetation within the action area, unsuitable for snake basking.

Caltrans' standard Best Management Practices (BMPs; Caltrans 2003) will be implemented throughout the proposed project area for the duration of construction. In addition, Caltrans has proposed the following avoidance and minimization measures in order to prevent any adverse effects to the snake.

- All in-water work shall be restricted to when the Cosumnes River is dry and/or within the salmonid work window, June 15 to October 15.
- A Worker Environmental Awareness Training Program for construction personnel shall be conducted by a Service-approved biologist for all construction workers, including contractors, prior to the commencement of construction activities.

Due to the lack of suitable snake habitat within the action area and the avoidance and minimization measures proposed by Caltrans, the Service believes that adverse effects are extremely unlikely to occur, and are therefore discountable for the purposes of this consultation.

Vernal Pool Fairy Shrimp

We also concur with your determination that the proposed project may affect, but is not likely to adversely affect the fairy shrimp. The proposed project reached the 'may affect' level, and the subsequent requirement for a biological assessment, due to the fact that the proposed project is within the known range of the fairy shrimp, suitable habitat is present within the action area, and fairy shrimp may be present in the action area. A shallow depressional feature supporting vernal

pool plant species is located at the northern extent of the action area, just west of an existing road used by the landowners of surrounding agricultural fields. The closest known occurrence of fairy shrimp in the California Natural Diversity Database (CNDDDB) is just south of the action area on the Valensin Ranch portion of the Cosumnes River Preserve (CNDDDB 2014).

No grading or excavation will occur near the vernal pool. The existing access road will be used by construction vehicles to access a nearby staging area. In addition to implementing standard BMPs, including the placement of straw wattles around the feature to prevent runoff from entering, Caltrans has proposed the following avoidance and minimization measures in order to prevent adverse effects to the fairy shrimp.

- All staging will be restricted to the east side of the access road.
- The west side of the road will be identified on all project mapping as an “Environmentally Sensitive Area” and fenced to prevent any equipment or vehicles from entering.
- Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease, oil, leaking hydraulic fluid, or fuel.
- Building material storage areas containing hazardous or potentially toxic materials, such as herbicides and petroleum products, will have an impermeable membrane between the ground and the hazardous material and be bermed to prevent the discharge of pollutants to groundwater and runoff water.
- A Worker Environmental Awareness Training Program for construction personnel shall be conducted by a Service-approved biologist for all construction workers, including contractors, prior to the commencement of construction activities.

Due to the limited project activity near the vernal pool and the avoidance and minimization measures proposed by Caltrans, the Service believes that adverse effects to the fairy shrimp are extremely unlikely to occur, and are therefore discountable for the purposes of this consultation.

Valley Elderberry Longhorn Beetle

Finally, we concur with your findings that the proposed project may affect, and is likely to adversely affect the beetle. We also find that your written request and the accompanying biological assessment fulfills the requirements for initiation of formal consultation. We have determined that it is appropriate to append the proposed project to the beetle programmatic for effects to the beetle. Therefore, this document is an agreement by the Service to append the proposed project to the beetle programmatic.

Consultation History

February 7, 2014 The Service received the February 4, 2014, letter from Caltrans initiating formal consultation, which included the January 2013, *State Route 99 Seismic Widening Bridge Rail Upgrade Biological Assessment*.

- March 20, 2014* The Service spoke with Caltrans on a telephone call regarding the effects determination for the snake in the initiation letter. Caltrans agreed to revise the initiation letter.
- May 15, 2014* The Service received a telephone call from Caltrans reporting that a vernal pool had been located within the action area and the biological assessment and initiation letter would be revised to include an effects determination for the fairy shrimp.
- June 13, 2014* The Service received the June 12, 2014, revised letter from Caltrans initiating formal consultation, which included the amended June 2014, *State Route 99 Seismic Widening Bridge Rail Upgrade Biological Assessment*.

BIOLOGICAL OPINION

Description of the Proposed Action

Caltrans proposes to retrofit the Cosumnes River Bridge and Cosumnes River Overflow Bridge by widening the bridges in order to widen the shoulders, replacing the approach slabs and railing, replacing the bridge rails, removing the asphalt concrete decks, and placing polyester concrete deck overlays. The construction work will require falsework that may require temporary support structures in the riverbed. Work within the riverbed will include pile driving (68 new piles for the Cosumnes River Bridge and 72 new piles for the Cosumnes River Overflow Bridge) and concrete pouring. On the Dillard Road overcrossing, work will include replacing the railing, removing the asphalt concrete decks, and placing polyester concrete deck. Construction will only include work during daylight hours and will be completed over two construction seasons.

The proposed project area contains 26 elderberry shrubs (*Sambucus* sp.), the sole host plant for the beetle, with at least one stem one inch or greater at ground level. Eleven of the shrubs are located between 20 and 100 feet of construction activities and will be protected through the implementation of proposed avoidance and minimization measures. The remaining 15 shrubs are unable to be avoided and will be removed prior to construction.

Avoidance and Minimization Measures

Conservation measures for projects appended to the beetle programmatic involve minimizing the impact of incidental take by transplantation of elderberry shrubs to a Service-approved conservation bank, along with additional plantings of elderberry stems and associated native vegetation, as described in *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Guidelines) (Service 1999). Caltrans proposes to compensate for the 15 shrubs removed as described in Table 1 below. Due to the difficulty of accessing shrubs in order to follow the transplantation procedure in the Guidelines, Caltrans is proposing to not transplant the shrubs, but will purchase three times the required beetle conservation credits. Based on the Guidelines, 39 credits will be required to accommodate the required plantings. Therefore, Caltrans will purchase 117 credits at a Service-approved conservation bank with a Service area covering the action area.

Table 1: Compensation Ratios for Affected Elderberry Shrubs

Riparian	Elderberry Stem Size	Exit Holes	Number of Stems	Seedling Ratio	Number of Replacement Elderberries	Associated Native Ratio	Number of Associated Seedlings
No	>1" and <3"	No	9	1:1	9	1:1	9
No	>3" and <5"	No	5	2:1	10	1:1	10
No	>5"	No	6	3:1	18	1:1	18
Yes	>1" and <3"	No	29	2:1	58	1:1	58
Yes	>3" and <5"	No	17	3:1	51	1:1	51
Yes	>5"	No	12	4:1	48	1:1	48
Total Stems Affected			78				
Total Replacement Plantings					194	194	
Conservation Credits Required for Plantings (total replacement plantings/10)						39	
Total Conservation Credits to be Purchased (Total Conservation Credits x 3)						117	
Note: This information is summarized from Appendix F in the biological assessment.							

In addition to implementing standard BMPs, including those minimizing soil erosion and dust, Caltrans has proposed the following avoidance and minimization measures to avoid effects to the remaining shrubs. The avoidance and minimization measures proposed below are considered part of the proposed action evaluated by the Service in this biological opinion.

- Avoided shrubs will be shown on construction plans as environmentally sensitive areas (ESA). The contractor will be required to install temporary ESA fencing a minimum of 20 feet from elderberry shrubs. The fencing placement will be approved by a Caltrans biologist before any work begins.
- Contractors and Caltrans personnel will be educated about the importance of the elderberry shrubs and the consequences of damaging the shrubs. Contractors and workers will be informed about the status of the beetle and the need to protect its host plant prior to construction. This will take place at a pre-construction meeting between Caltrans and the contractor.
- Signs will be placed on the ESA fencing stating: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs will be readable from 20 feet away and will be maintained during the entire duration of construction.
- Any disturbed ground between 20 and 100 feet from the shrubs will be restored after construction is complete. The affected areas will be revegetated with native plants appropriate for the project location.

Action Area

The action area is defined in 50 CFR §402.02 as, “all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action.” For the proposed project, the Service considers the action area to include the 7.2-acre construction footprint, as well as areas used for access and 2.5 acres of staging. The action area also includes all areas up to 30 feet from these areas in which dust deposition could exceed existing deposition rates and up to 500 feet from the construction footprint in which noise from construction activities is expected to exceed ambient levels.

Evaluation under the Programmatic Consultation

The Service has determined that it is appropriate to append the proposed State Route 99 Seismic Bridge Retrofit Project to the beetle programmatic. Prior to any ground disturbing activities associated with the proposed project, Caltrans shall fulfill the compensation described under *Avoidance and Minimization Measures*. This letter is an agreement by the Service to append the proposed project to the beetle programmatic for effects to the beetle and represents the Service’s biological opinion on the effects of the proposed project.

Analytical Framework for the Jeopardy Analysis

In accordance with policy and regulation, the jeopardy analysis in the beetle programmatic relied on four components: (1) the *Status of the Species*, which evaluated the beetle’s range-wide condition, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline*, which evaluated the condition of the beetle in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the beetle; (3) the *Effects of the Action*, which determined the direct and indirect effects of federal actions and the effects of any interrelated or interdependent activities on the beetle; and (4) the *Cumulative Effects*, which evaluated the effects of future, non-federal activities in the action area on the beetle.

In accordance with policy and regulation, the jeopardy determination in the beetle programmatic was made by evaluating the effects of federal actions in the context of the beetle’s current status, taking into account any cumulative effects, to determine if implementation of the actions is likely to cause an appreciable reduction in the likelihood of recovery of the beetle in the wild.

The jeopardy analysis in the beetle programmatic placed an emphasis on consideration of the range-wide survival and recovery needs of the beetle and the role of the action area in the survival and recovery of the beetle as the context for evaluating the significance of the effects of federal actions, taken together with cumulative effects, for purposes of making the jeopardy determination.

Status of the Species

The status of the beetle is described in the beetle programmatic for the time the document was signed. For the most recent comprehensive assessment of the range-wide status of the beetle, please refer to the *Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus) 5-Year Review: Summary and Evaluation* (Service 2006). Since this review was published, the beetle has been proposed for delisting through the publication of the *Removal of the Valley Elderberry Longhorn Beetle From the Federal List of Endangered and Threatened Wildlife; Proposed Rule* (Service 2012).

Environmental Baseline

The 26 elderberry shrubs in the action area represent an immeasurably small proportion of shrubs throughout the full range of the beetle. The closest known occurrence of the beetle in the CNDDDB is approximately 3.5 aerial miles to the southwest, downstream along the Cosumnes River (CNDDDB 2014). No exit holes were observed in the elderberry shrubs within the action area; however, the beetle is difficult to detect, so it is conceivable that beetles may have been present at the time of surveys and not detected. Many of the elderberry shrubs in the action area are in close proximity to the heavily-traveled SR 99 or the existing access road, used by the landowners of surrounding actively-farmed agricultural fields, and are therefore already regularly exposed to dust and other particulates.

Effects of the Proposed Action

Eleven of the elderberry shrubs in the action area are not likely to be adversely affected based on the avoidance and minimization measures proposed by Caltrans. Construction activities will adversely affect the remaining 15 elderberry shrubs with 78 stems one inch or greater in diameter at ground level. Any beetle larvae occupying the shrubs will be killed when the shrubs are removed. However, the compensation proposed by Caltrans will provide additional habitat for the beetle that will be protected in perpetuity.

Cumulative Effects

Cumulative effects include the effects of future state, tribal, county, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The Service is not aware of any future actions reasonably certain to occur in the action area that could result in cumulative effects.

Conclusion

After reviewing the current status of the beetle, the environmental baseline in the beetle programmatic, the effects of the proposed project, the cumulative effects, and the proposed avoidance and minimization measures, it is the Service's biological opinion that the State Route 99 Seismic Bridge Retrofit Project, as proposed, is not likely to jeopardize the continued existence of the beetle. The Service reached this conclusion because the proposed project fits within the parameters of the level of take anticipated in the beetle programmatic and the project-related effects to the species, when added to the environmental baseline and analyzed in consideration of the lack of cumulative effects, will not rise to the level of precluding recovery of the species or reducing the likelihood of survival of the species. The effects to the beetle are small and discrete, relative to the range of the species, and although the loss of habitat will contribute to the overall reduction of beetle habitat, the avoidance and minimization measures will contribute to the long-term preservation and management of beetle habitat. The project will contribute to the conservation of the beetle by preserving habitat at a conservation bank that will manage a large contiguous section of habitat for the benefit of the species.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service regulations at 50 CFR 17.3 as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the same regulations as an act which actually kills or injures wildlife. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by Caltrans so that they become binding conditions of any grant or permit issued to contractors, as appropriate, for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this incidental take statement. If Caltrans (1) fails to assume and implement the terms and conditions or (2) fails to require contractors to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the grant or permit, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement. [50 CFR §402.14(i)(3)]

Amount or Extent of Take

The incidental take of the beetle anticipated for this project will result from the destruction of the 15 elderberry shrubs with 78 stems one inch or greater in diameter at ground level. The life stage affected by this action will be the beetle larvae living within the stems of the elderberry shrubs. The life cycle of the beetle takes one or two years to complete, during which it spends most of its life in the larval stage. Due to the fact that it is not possible to know how many beetle larvae are in the stems of any elderberry shrub, the Service cannot quantify the total number of beetles that we anticipate will be taken as a result of the proposed action. In instances in which the total number of individuals anticipated to be taken cannot be determined, the Service may use the amount of habitat impacted as a surrogate; since the take of individuals anticipated will result from the destruction of the elderberry shrubs, the quantification of suitable habitat serves as a direct surrogate for the beetles that will be lost. Therefore, the Service anticipates take incidental to this project as the 15 elderberry shrubs with 78 stems one inch or greater in diameter at ground level that will be destroyed.

Effect of the Take

The Service has determined that this level of anticipated take is not likely to result in jeopardy to the valley elderberry longhorn beetle.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the proposed State Route 99 Seismic Bridge Retrofit Project in Sacramento County, California. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained or is authorized by law and: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action.

If you have questions regarding the proposed State Route 99 Seismic Bridge Retrofit Project, please contact Lily Douglas, Fish and Wildlife Biologist, or Kellie Berry, Chief, Sacramento Valley Division at (916) 414-6600.

Sincerely,



Kenneth D. Sanchez
Assistant Field Supervisor

cc:
Dr. Kathleen A. Dadey, U.S. Army Corps of Engineers, Sacramento, California

LITERATURE CITED

- California Natural Diversity Database (CNDDDB). 2014. Biogeographic Data Branch, Department of Fish and Wildlife. Sacramento, California. Accessed 20 June 2014.
- California Department of Transportation (Caltrans). 2003. Caltrans Storm Water Quality Handbooks: Construction Site Best Management Practices (BMPs) Manual. Caltrans Publication Distribution Unit, Sacramento, California. March 2003.
- U.S. Fish and Wildlife Service (Service). 1999. Conservation Guidelines for the Valley Elderberry Longhorn Beetle. Sacramento Fish and Wildlife Office, Sacramento, California. 15 pp.
- _____. 2006. Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) 5-Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, California. September 2006. 28 pp.
- _____. 2012. Removal of the Valley Elderberry Longhorn Beetle From the Federal List of Endangered and Threatened Wildlife; Proposed Rule. Federal Register 77:60238-60276. October 2, 2012.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814-4700

SEP 5 2014

Refer to NMFS No.: WCR-2014-744

Ms. Suzanne Melim
Environmental Branch Chief
Department of Transportation
District 3, North Region
Office of Environmental Management
703 B Street
Marysville, CA 95901-0911

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response and Fish and Wildlife Coordination Act Recommendations for the proposed Sacramento State Route 99 Seismic Bridge Retrofit Project (EA 03-0F280)

Dear Ms. Melim:

On January 30, 2014, NOAA's National Marine Fisheries Service (NMFS) received your request for written concurrence that the California Department of Transportation's (Caltrans) proposed Sacramento State Route 99 Seismic Bridge Retrofit Project (Project) is not likely to adversely affect species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). This request was prepared by NMFS, pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including conservation measures and any determination you made regarding the potential effects of the action. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation.

Because the proposed action will modify a stream or other body of water, NMFS also provides recommendations and comments for the purpose of conserving fish and wildlife resources under the Fish and Wildlife Coordination Act (16 U.S. C. 662(a)).

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The concurrence letter will be available through NMFS' Public Consultation Tracking System at <https://pcts.nmfs.noaa.gov>. A complete record of this consultation is on file at the California Central Valley Office (CCVO) of NMFS.



Proposed Action

The project is located along State Route (SR) 99 near the Sacramento/San Joaquin County line. The bridge site is located on SR 99 over the Cosumnes River 0.5 miles south of Elk Grove (south of Grant Line Road) and four miles north of Galt (north of Dillard Road). The project proposes to retrofit the Cosumnes River Bridge by widening bridge shoulders to conform to adjacent roadway sections, replacing approach slabs, replacing approach/transition railing, replacing non-standard bridge rails, removing the asphalt concrete deck surface, and placing a polyester concrete deck overlay. The project will improve clearance at approach rails and bridge rails and will ensure the bridge is up to code and structurally sound.

Action Area

The action area encompasses the lower reach portion of the Cosumnes River that flows underneath SR 99. For the purpose of this consultation, the action area includes areas of direct potential affects where people and equipment would be working in the proposed project area and the areas of indirect affects 200 feet (ft) upstream, downstream, and laterally across the Cosumnes River. The action area encompasses waterways where California Central Valley (CCV) steelhead (*Oncorhynchus mykiss*) may be present. There are no designated critical habitat areas for CCV steelhead in the action area. In-water work for this project is proposed to be conducted when the riverbed is in the dry. There are no interrelated or interdependent project activities in the action area.

Project Description

The seismic retrofit of the Cosumnes River Bridge involves typical cast-in-place bridge widening construction methods. Construction will occur in the following order: abutments will be excavated, piles will be driven, abutment forms will be built, concrete abutments will be cast, falsework will be erected, the bridge superstructure will be cast, the barrier will be cast, and the falsework will be removed. The falsework may span over the riverbed or may require temporary support structures in the riverbed. Construction will take two full seasons to complete and will only include work during daylight hours. Equipment needed to construct the project includes hand tools, pickups, an excavator, a crane, a four wheeled drive forklift, man lifts, a pile hammer (impact or vibaratory), wood and/or metal forms, and steel beams. The Cosumnes River Bridge staging area will be located in an open area 400 ft north of the project site. Once construction is finished the bridge will be maintained yearly through visual inspections.

Construction equipment will need to access the riverbed, under the ordinary high water mark (OHWM), within 20 ft of the bridge rail. The construction footprint under the OHWM includes the widening of three pier walls. The footings will be widened from seven ft by 42 ft to seven ft by 56 ft for a total widened width of 14 ft. The widening will require driving piles and pouring concrete. The Cosumnes River Bridge is supported by 16 rows of 18 inch diameter columns and five rows of four by 42 ft pier walls. The construction of the bridge will require pile driving. At each bent of the columns, there will be three steel or concrete piles two to three feet in diameter. At each bent of the pier walls, there will be four steel or concrete piles 16 to 24 inches in diameter. There will be a total of 68 new piles driven at the Cosumnes River Bridge. The length of the piles will be between 60 and 80 ft. Pile driving will be completed in four weeks. All piles

located within 50 ft of the OHWM or below the OHWM will be driven during the construction in-water work window of June 15-October 15 when the river is in the dry. The 50 ft buffer is based on acoustic measurements of pile driving for the Feather River Bridge Project in 2013 (Caltrans 2014). Data from the Feather River Bridge Project show that pile driving 72 inch diameter piles on land with a diesel impact hammer did not exceed lethal acoustic levels 50 ft from the Feather River. The piles on the Cosumnes River Bridge are half the size and will have less of an acoustic impact in comparison. No pile driving will occur outside of the construction work window.

The river below the Cosumnes River Bridge at SR 99 has been dry during summer months for the past fifteen years (Kennedy, 2013 in Caltrans, 2014). However, if construction occurs during an abnormally wet year and water is present, a water diversion plan will be sent to NMFS for approval prior to the application of any proposed dewatering method being utilized in-river. If construction occurs during an abnormally dry year, Caltrans may propose (and will seek NMFS approval prior to doing so) to continue construction work in-river beyond the established in-water work window as long as the riverbed persists being in the dry beyond June 15-October 15.

Avoidance Measures

The following avoidance, minimization, and mitigation measures will be incorporated into the project to reduce the potential to adversely affect listed fish and their critical habitat:

1. All in-water work shall be restricted to the in-water work window of June 15 to October 15 when the Cosumnes River is in the dry;
2. Clearing will be confined to the minimal area necessary within 200 ft of aquatic habitat to facilitate construction activities;
3. Standard construction best management practices (BMPs) will be implemented throughout construction, in order to avoid and minimize adverse effects to potential future water quality issues within the project impact area. All disturbed soils will undergo erosion control treatment immediately after construction is terminated. Appropriate erosion control measures will be used (*e.g.*, hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from project sites;
4. Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials will not be allowed to enter the river. A plan for the emergency clean-up of any spills of fuel or other materials will be available when construction equipment is in use;
5. Equipment will be refueled and serviced at designated construction staging areas. All construction material and fill will be stored and contained in a designated area that is located away from channel to prevent transport of materials into adjacent streams. The preferred distance is 100 ft from the stream. In addition, a silt fence will be installed to collect any discharge, and adequate materials for spill clean-up and during storm events;

6. Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease, oil, leaking hydraulic fluid, or fuel;
7. Building material storage areas containing hazardous or potentially toxic materials such as herbicides and petroleum products will be located outside of the 100 year flood zone, have an impermeable membrane between the ground and the hazardous material, and will be bermed to prevent the discharge of pollutants to ground water and run-off water;
8. Shaded riverine aquatic (SRA) habitat or natural woody riparian habitat will be avoided or preserved to the maximum extent practicable. Any disturbed riparian vegetation will be replanted at a 1:1 ratio with native trees and shrubs, with the appropriate irrigation, care, and monitoring to ensure that healthy riparian and SRA habitat is fully established. Successful replanting will be measured at 80 percent or greater replacement of original habitat function after three years post project construction;
9. Rapidly sprouting plants, such as willows, will be cut off at ground level and root systems will be left intact;
10. Upon completion of construction, disturbed areas will be re-vegetated with native grasses;
11. Construction personnel will participate in a NMFS approved worker environmental awareness program. A qualified biologist will inform all construction personnel about the life history of CCV steelhead and its potential presence in the project area as well as explain the state and federal laws pertaining to protecting this species and its habitat; and
12. Pile driving will not occur within 50 ft of the Cosumnes River outside of the established in-water work window.

Action Agency's Effects Determination

Caltrans has determined that the proposed project may affect, but is not likely to adversely affect, the federally listed as endangered CCV steelhead (71 FR 834, January 5, 2006), in accordance with section 7 of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*). There is no designated critical habitat for CCV steelhead in the action area.

Caltrans has also determined that this project may adversely affect EFH for Pacific salmon, pursuant to section 305(b)(2) of the MSA. Direct impacts may occur to EFH due to the presence of potential migratory habitat for fall-run Chinook salmon in the action area.

Consultation History

On January 29, 2014, Caltrans sent an initiation request letter, application package, and biological assessment (BA) for the project to NMFS' West Coast Region (WCR) CCVO.

On February 3, 2014, CCVO staff received the initiation package for the project.

On April 24, 2014, CCVO staff deemed the package complete and initiated section 7 consultation with Caltrans.

On August 26, 2014, Caltrans emailed project description clarification language to NMFS to include in the BA.

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, "effects of the action" means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is not likely to adversely affect listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. The effects of the proposed action are reasonably likely to include potential effects to CCV steelhead.

Potential impacts to CCV steelhead that could result from construction activities include increased erosion, sedimentation and turbidity; loss of SRA habitat; decreased water quality due to the potential for hazardous materials and chemical spills, and physiological effects associated with production of hydraulic pressure waves and noise during potential in-river pile driving activities. Effects to CCV steelhead are not anticipated as project construction will occur when the riverbed is in the dry. However, should construction occur during an abnormally wet year, the following discussion addresses these impacts to CCV steelhead and provides analysis in support of the proposed avoidance, mitigation, and minimization measures outlined above for this project.

Increases in sediment in-river can lead to changes in spawning bed composition, decreased benthic vertebrate abundance, increased stress responses in fish, and increased fish mortality. Disturbance to soils and vegetation within the project limits may temporarily increase sedimentation and turbidity in the Cosumnes River, but turbidity from project activities is anticipated to occur between June 15 and October 15, which is outside both the November through March adult CCV steelhead spawning migration season and the juvenile fall through early spring downstream emigration season (and therefore occurring at a time when listed species presence is extremely unlikely). Any increase in sedimentation and turbidity resulting from project activities will be temporary and limited to a very small portion of the river during construction activities. The construction window occurs during the summer months when the dry river precludes CCV steelhead presence. Nevertheless, appropriate erosion control measures will be implemented during construction (*e.g.*, hay bales, filter fences, vegetative buffer strips) to reduce siltation and contaminated runoff from the construction site. In addition, construction

activities will comply with Federal and State water quality standards and these effects will be minimized through the implementation of BMPs. Therefore the potential for adverse effects to CCV steelhead due to erosion, sedimentation and turbidity are discountable.

Project activities associated with stream channel alterations may include the removal of riparian vegetation. Riparian vegetation is critical to salmonid habitat in that it stabilizes stream banks, creates shade and cover that provides temperature control, and increases the complexity of fish habitat providing fish refuge and prey habitat for foraging. Widening of the bridge would result in the loss of some SRA habitat and streamside vegetation. Implementation of the proposed project would result in the temporary loss of approximately 200 linear feet of existing exposed shoreline. All temporarily impacted areas will be restored to pre-construction conditions and riparian vegetation will be replaced at a 1:1 ratio. The permanent loss of approximately 0.008 acre (ac) of SRA due to the lengthening of the bridge piles and scour repair will be compensated by the creation of an additional 0.03 ac of SRA due to bridge widening. Permanent impacts to waters will be mitigated for at a 3:1 ratio NMFS approved mitigation bank. Therefore the potential for adverse effects to CCV steelhead associated with the removal of riparian vegetation are discountable and beneficial.

Project related activities could potentially impair water quality should hazardous chemicals (*e.g.* hydrocarbon-based fuels and lubricants) or other materials enter the Cosumnes River. Project related chemical spills could potentially affect CCV steelhead by causing physiological stress, reducing biodiversity, interfering with fish passage, and causing direct mortality. The implementation of the BMPs listed above will result in hazardous materials or chemical spills in-river to be unlikely. Additionally, the construction window occurs during the summer months when the river will be in the dry. Therefore the potential for adverse effects to CCV steelhead associated with hazardous chemicals are discountable.

Pile driving activities can affect fish by causing physiological harm and/or direct mortality. Pile driving within 50 ft of the river will only occur within the in-water work window of June 15 to October 15 when the river bed is in the dry, therefore adverse effects to CCV steelhead from pile driving are discountable. No pile driving will occur outside the construction work window.

Conclusion

Based on this analysis, NMFS concurs with Caltrans that the proposed action is not likely to adversely affect CCV steelhead or its designated critical habitat.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by Caltrans or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this concurrence letter, or if (3) a new species is listed or critical habitat designated that may be affected by this identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT

Under the MSA, this consultation is intended to promote the protection, conservation and enhancement of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity", and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10), and "adverse effect" means any impact which reduces either the quality or quantity of EFH (50 CFR 600.910(a)). Adverse effects may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

NMFS determined the proposed action would adversely affect EFH as follows: there is potential to temporarily disrupt habitat function and quality through increased turbidity and temporary loss of riparian habitat within or adjacent to the project area in the Cosumnes River. The EFH recommendations for this project are the same as the ESA Section 7(a)(1) conservation recommendations discussed below.

Caltrans must re-initiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600.920(1)). This concludes the MSA portion of this consultation.

FISH AND WILDLIFE COORDINATION ACT

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development (16 U.S.C. § 661). The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage (16 U.S.C. § 662(a)). Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. The FWCA provides the opportunity to offer recommendations for the conservation of species and habitats beyond those currently managed under the ESA and MSA.

- (1) Caltrans should install interpretive signs at the proposed future retrofit bridge sites listed above to educate and inform visitors about the ecological value of anadromous fish resources in the San Joaquin Valley watershed.

NMFS requests that your office provide a response to the FWCA recommendations. We make this request in order to foster greater communications with action agencies and to monitor the effectiveness of our letters. Your response may be submitted in combination with responses to EFH Conservation Recommendations if applicable. This concludes FWCA consultation for the Sacramento SR 99 Seismic Bridge Retrofit Project.

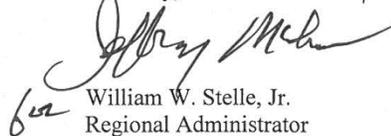
ESA Section 7(a)(1) Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. Conservation recommendations are discretionary agency activities intended to minimize or avoid adverse effects of a proposed project on listed species or critical habitat, to help implement recovery plans, or to develop information. Caltrans also has the same responsibilities, and informal consultation offers action agencies an opportunity to address their conservation responsibilities under section 7(a)(1). In order to fulfill the requirements of section 7(a)(1), NMFS recommends the following conservation measure:

- (1) Caltrans should include in their permit, a condition that the applicant purchase salmonid and steelhead habitat restoration credits at a NFMS-approved anadromous fish conservation bank at a 3:1 ratio for the footprint of the project area. The purchase of credits is consistent with 7(a)(1) because it would result in the restoration and long-term preservation of valuable habitat attributes that will improve the survival and recovery of the species.

Please direct questions regarding this letter to Dylan Van Dyne in NMFS' WCR CCVO at (916) 930-3725, or via e-mail at Dylan.VanDyne@noaa.gov concerning this project.

Sincerely,



William W. Stelle, Jr.
Regional Administrator

CC: Copy to File: 151422WCR2014SA00090
California Central Valley Area Office - File Copy

Literature Cited

California Department of Transportation. 2014. Biological Assessment for the Geotechnical Drilling Foundation Investigation for Sacramento State Route 99 Seismic Bridge Retrofit Project. January, 2014. 71 pp.

Kinney, Trevor. 2013. Personal Communication with Caltrans. Phone interview, 17 June 2013.

71 FR 834. January 5, 2006. Endangered and Threatened Species: Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead; Final Rule. *Federal Register*, Volume 71 pages 834-862.

Appendix B. CEQA Checklist

Supporting documentation of all California Environmental Quality Act (CEQA) checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment (IS/EA). Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2.

CEQA Environmental Checklist

03-SAC-99

7.36/8.4

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Dist.-Co.-Rte.

P.M/P.M.

E.A.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IV. 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VI. GEOLOGY AND SOILS: Would the project:

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

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

VII. GREENHOUSE GAS EMISSIONS: Would the project:

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

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XI. MINERAL RESOURCES: Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XII. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIII. POPULATION AND HOUSING: Would the project:

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

XIV. PUBLIC SERVICES:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XV. RECREATION:

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

XVI. TRANSPORTATION/TRAFFIC: Would the project:

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

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix B. Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION

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*Use your power!
Be energy efficient!*

March 2013

NON-DISCRIMINATION POLICY STATEMENT

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

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

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A handwritten signature in blue ink, appearing to read "MalcolM Dougherty".

MALCOLM DOUGHERTY
Director

"Caltrans improves mobility across California"

Appendix C. Minimization and/or Mitigation Summary

Human Environment

UTILITIES

It is anticipated that SMUD and Comcast utilities located on a joint pole will be relocated to allow for crane access at both the Cosumnes River Bridge and the Cosumnes River Overflow Bridges. It is anticipated that any interruptions will be minor in nature and short term. Typically the new poles are installed while the existing poles are still active. This limits the amount of time the utilities are shut off because they can be moved immediately onto the new poles. The Kinder Morgan utility located underneath the Cosumnes River Overflow Bridge may be protected in place or service may be briefly interrupted during the placement of new bents 23 and 24. No anticipated disruption is expected as the work continues outside of the bents mentioned. The SMUD electrical line just north of Dillard Road Overcrossing will be protected in place and/or design may also be revised to ensure that said facility is not affected. No disruption is expected for homeowners.

All utilities that may be effected (SMUD, COMCAST, and Kinder Morgan) have been contacted and are aware of the project scope and duration. SMUD and Comcast are currently in the process of assessing the relocation work to take place sometime early 2015.

Kinder Morgan's petroleum pipeline will be positively located (potholed) at the end of September 2014. Once potholing data is received, relocation or protect-in-place efforts will be coordinated between Kinder Morgan and Caltrans. If a disruption in service is anticipated all parties involved (such as homeowners) will be notified via letters, door tags (fliers), and door to door contact.

TRAFFIC AND TRANSPORTATION

To prevent increased congestion and keep traffic moving smoothly the following measures will be implemented during construction.

- Work requiring traffic control on mainline, ramps, and shoulders may be restricted from late evening to early morning hours only.
- K-rail will be placed to separate road work from the traveling public when necessary.
- Temporary railing (Type K) shall be secured in place prior to allowing traffic on a bridge when bridge rails are removed for replacement.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- Signs will be used to inform drivers of ongoing work and closures.
- Adjacent ramp closures will be allowed during lane closures.
- One-way traffic control will be allowed on Dillard Rd. Bridge (# 24-0163) during evening hours, but may be restricted during time with higher traffic volumes.
- A full directional closure, with detours, may be allowed late evening to early morning hours during bridge rails replacement on the Overcrossing Bridge (# 24-0163).

VISUAL/AESTHETICS

The minimization of the impacts caused by this project can be achieved by implementing the following measures:

- All areas disturbed due to all construction activities, including staging locations, temporary construction easements (TCE) and access roads shall be restored to its pre-construction condition upon completion of the project. This can best be accomplished by loosening and re-contouring the area's soil before applying erosion control (such as hydro-seed with native seed mix and erosion control blankets).
- Removal of vegetation, including trees, will be at the lowest level necessary to construct the project.
- All disturbed areas during each construction season shall utilize best management practices (BMPs) which will include temporary erosion control consisting of a native seed mix at the end of each construction season.
- All removed riparian vegetation will be replaced after construction is completed. A re-vegetation plan will be approved by the various resource agencies prior to the start of restoration and the site will be monitored to ensure successful reestablishment of the area.

CULTURAL RESOURCES

It is concluded that no cultural resources are within the project limits, however, there are resources within a ¼ mile of the APE and it is recommended that any modifications to the project will be reviewed by a Caltrans archaeologist for potential effects to these other cultural resources.

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

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District 3 Environmental Management Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Physical Environment

HYDROLOGY AND FLOODPLAIN

The Cosumnes River is a regulated waterway and a permit will be required from the Central Valley Flood Protection Board (CVFPB) which has jurisdiction over levees as well as waterways and floodways. Permit approval by the Central Valley Flood Protection Board may take up to 18 months (depending upon circumstances where the Board may deem it necessary to involve the Army Corps of Engineers in the review process).

WATER QUALITY AND STORM WATER RUNOFF

The proposed project would result in over one acre of DSA. The NPDES permit and the SWPPP include the following regulations and shall be adhered to:

- During construction, compliance with the NPDES permit requires the appropriate selection and deployment of both structural and non-structural Best Management Practices (BMPs) that achieve the performance standards of Best Available Technology economically achievable/Best Conventional Pollutant Control Technology (BAT/BCT) to reduce or eliminate storm water pollution.
- The general contractor performing the work would be responsible for preparing the approved SWPPP, constructing or implementing the BMP measures and regularly inspecting and maintaining the implementation plan.
- Temporary BMPs would be implemented during construction activities to avoid erosion and sedimentation, prevent off site contamination by construction materials, reduce the pollutants in storm water discharges through construction, reduce storm water discharges from the construction site and reduce impacts on water bodies once the project is complete.
- Where working areas encroach on live or dry streams, lakes, or wetlands, RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems will be constructed and maintained between working areas and streams, lakes and wetlands. During construction of the barriers, discharge of sediment and silt into streams will be held to a minimum. Discharge will be contained through the use RWQCB-approved measures to keep sediment from entering protected waters.
- Oily or greasy substances originating from the Contractor's operations will not be allowed to enter or be placed where they will later enter tributary waters or a live or dry stream. Asphalt concrete will not be allowed to enter tributary waters, a live or dry stream, pond, or wetland.
- Standard Special Provisions (SSP) for Construction Site Management, Water Pollution Control and Relations with the Regional Water Quality Control Board will reduce the impacts of construction activities and prevent construction site runoff from entering adjacent waterways. The project SWPPP would also require the Contractor to identify the location and storm water protection of designated staging areas and would include specific requirements for equipment fueling, maintenance and storage processes.

HAZARDOUS WASTE/MATERIALS

The Contractor must implement a project specific Lead Compliance Plan prepared by a Certified Industrial Hygienist (CIH) as required by the California Occupational Safety and Health Administration (Cal/OSHA). The plan will detail the correct procedures for handling, removing, and disposing of earth materials containing lead and waste from removing traffic stripes and pavement markings.

All materials containing lead will be handled in accordance with all applicable laws, rules, and regulations, including those of the following agencies: California Occupational Safety and Health Administration (Cal/OSHA), California Regional Water Quality Control Board (Central Valley RWQCB), California Department of Toxic Substances Control (CA DTSC).

All workers, including Caltrans staff, will receive lead compliance training before beginning any work that could potentially expose them to lead containing substances.

During the proposed project any workers that have the potential to come in contact or handle treated wood waste (TWW) will be given training on the proper handling procedures and applicable laws, including procedures for identifying and segregating TWW, and proper disposal methods.

Treated wood waste will be, properly labeled for easy identification, and stored within the project area in a secured lockable enclosure to prevent unauthorized access. The TWW will also be stored so that it is protected from precipitation, or any other sources of water, to prevent contaminating any water that could leave the site. All TWW that leaves the site will be documented and disposed of at an approved TWW facility.

To prevent worker exposure to asbestos Caltrans will require that the contractor submit an Asbestos Compliance Plan that will detail the correct procedures for handling, removing, and disposing of materials containing asbestos.

The Contractor must prepare bridge demolition/renovation notification/permit form and attachments to be submitted to the Air Pollution Control District (APCD) or Air Quality Management District (AQMD) as required by the National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR Part 61, Subpart M, and California Health and Safety Code section 39658(b)(1). Notification must take place no less than 20 days before starting demolition or renovation activities as defined in the NESHAP regulations.

Biological Environment

NATURAL COMMUNITIES

The following avoidance and minimization efforts shall be implemented to reduce potential impact to riparian habitat within the project area:

- Tree removal will be avoided whenever possible and temporary impacts will be mitigated for onsite through re-vegetation.
- Exclusionary fencing shall be installed along the boundaries of all riparian areas to be avoided to ensure that impacts to riparian vegetation outside of the construction zone are minimized.

All removed riparian vegetation will be replaced after construction is completed. A re-vegetation plan will be approved by the various resource agencies prior to the start of restoration and the site will be monitored to ensure successful reestablishment of the area.

The area impacted will be mitigated through the purchased of credits at a NMFS approved mitigation bank. However, the expanded bridge deck will provide additional shade over the Cosumnes River (approximately 0.03 acre) which will compensate for the loss riparian associated shading removed by the project.

WETLANDS AND OTHER WATERS

Best management practices will be implemented to guarantee the smallest practical footprint to minimize temporary, indirect, and permanent impacts to jurisdictional waters of the United State Route 99 Bridge Project

States. Work will be limited to when the river is dry. Wetlands and vernal pools will be fenced with environmentally sensitive area fencing to prevent any impacts from the proposed project.

Temporary impacts to Water of the United States will be mitigated through restoration. Permanent impacts will be mitigated by the purchase of credits at an approved mitigation bank or through “in-lieu-fee” mitigation.

ANIMAL SPECIES

The following avoidance and minimization measures be adhered to:

- The removal of any woody vegetation (trees and shrubs) required for the project shall be completed between September 1st and February 14th, prior to project construction. This time period is considered to be *outside* of the predicted nesting season for raptors and migratory birds. Vegetation removal outside this time period may not proceed until a survey by a qualified biologist determines that no nests are present or in use.
- If woody vegetation removal, construction, structures work, grading, or other project-related improvements are scheduled during the nesting season of protected raptors and migratory birds (February 15th to August 31st), a focused survey for active nests of such birds will be conducted by a qualified biologist within 7 days prior to the beginning to project-related activities. If active nests are found, Caltrans will consult with USFWS regarding appropriate action to comply with the MBTA of 1918 and with CDFW to comply with provisions of the Fish and Game Code of California. If a lapse in project-related work of 7 days or longer occurs, another survey and, if required, consultation with USFWS and CDFW will be required before the work can be reinitiated.
- Exclusionary devices should be installed on structures that show evidence of supporting migratory birds colonies to discourage their use of the structures during construction. Exclusionary devices would be installed during the non-nesting season between September 1st and February 14th.

THREATENED AND ENDANGERED SPECIES

VELB

Credits will be purchased at a service approved bank to mitigate for the loss of habitat. Avoidance measures will be implemented to prevent damage to the remaining eleven plants.

Eleven of the 26 elderberry shrubs within and near the project area will not be removed or have their roots zones disturbed during construction. To protect these eleven remaining shrubs the standard avoidance and minimization measures outlined in the USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* and the 1997 *Formal Programmatic Consultation Permitting Projects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office, California* (File # 1-1-96-F-156) between the USFWS and FHWA will be followed. The USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* defines a buffer area as the area within 100 ft of the dripline of any elderberry shrub. A core avoidance area is defined as the area within 20 ft of the dripline of any elderberry shrub. In areas that are within 100 ft of any

elderberry shrub, construction-related disturbance will be minimized, and any areas that may be temporarily disturbed will be restored upon completion of construction.

Work within 100 ft of all the elderberry shrubs that cannot be avoided. The project will have protective measures implemented. All avoided elderberry shrub core avoidance areas and will include the following:

- Avoided shrubs will be shown on construction plans as environmentally sensitive areas. The contractor will be required to install fencing, to exclude the shrubs, before any work begins.
- Prior to construction construction personnel will be educated about the status of the VELB, the importance of the elderberry shrubs and the consequences of damaging the shrubs.
- Signs will be placed on the exclusion fencing to warn workers not to encroach on the shrubs.
- Any disturbed ground within the buffer areas will be restored after construction is complete. The affected areas will be revegetated with native plants appropriate for the project location.
- Insecticides, herbicides, fertilizers, or other chemicals will not be used in core or buffer areas within the project limits.
- Caltrans' Best Management Practices (BMP) will be in place during construction and will serve to minimize soil erosion and airborne dust.

Based on the stem count of the fifteen elderberry shrubs that will be removed, thirty-nine credits would be required to mitigate for the loss. However, Caltrans had made a decision not to transplant and thus will buy three times the credits required for the removal, one hundred and seventeen credits. Caltrans has decided against transplanting due to access issues. The credits will be purchased at an agency approved bank.

GGG

Due to lack of habitat and the unlikelihood that GGS would be present within the project area, implementation of all of the standard avoidance and minimization measures for GGS will not be necessary, and no mitigation is proposed. A construction window will not be identified for this project specific to GGS. However, the work window to be implemented for the avoidance and minimization of impacts to Central Valley steelhead, identified in the previous section, will be sufficient to protect any GGS, however unlikely, that may enter the project area.

Vernal Pool Fairy Shrimp

All staging for this project will be restricted from entering the vernal pool complex . All project mapping will identify the west side of the access road, in the potential staging area north of the Cosumnes River, as an "environmentally sensitive area" and will be fenced off to prevent any equipment or vehicles from entering. All standard Caltrans water quality BMPs, including the placement of straw waddles around this feature to prevent any runoff from entering, will also be implemented.

Central Valley Steelhead

The construction of the proposed project will result in approximately 0.025 acre of permanent fill in the water way. This will be mitigated through the purchased of credits at a NMFS approved mitigation bank.

Although the Central Valley steelhead is not likely to be present within the project limits, the following avoidance and minimization efforts will be incorporated into the project:

- All in-water work shall be restricted to when the Cosumnes River is dry and/or within the salmonid work window (June 15- October 15). This is a period when no listed salmonids will be present.
- Clearing will be confined to the minimal area necessary within 200 feet of aquatic habitat to facilitate construction activities.
- Standard construction BMPs will be implemented throughout construction, in order to avoid and minimize adverse effects to the future water quality within the project impact area. All disturbed soils will undergo erosion control treatment immediately after construction is terminated. Appropriate erosion control measures will be used (e.g., hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from project sites.
- Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials will not be allowed to enter the river. A plan for the emergency clean-up of any spills of fuel or other material will be available when construction equipment is in use.
- Equipment will be refueled and serviced at designated construction staging areas. All construction material and fill will be stored and contained in a designated area that is located away from channel to prevent transport of materials into adjacent streams.
- Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease, oil, leaking hydraulic fluid, or fuel.
- Building material storage areas containing hazardous or potentially toxic materials such as petroleum products will be located outside of the 100 year flood zone, have an impermeable membrane between the ground and the hazardous material, and be bermed to prevent the discharge of pollutants to ground water and runoff water.
- Shaded riverine aquatic habitat or natural woody riparian habitat will be avoided or preserved to the maximum extent practicable. Any disturbed riparian vegetation should be replanted at the highest ratio conducive to the space available with native trees and shrubs, with appropriate irrigation, care, and monitoring to ensure that healthy riparian and shaded riverine aquatic habitat is fully established.
- Rapidly sprouting plants, such as willows, will be cut off at ground level and root systems left intact.
- Upon completion of construction, disturbed areas will be re-vegetated with native grasses.
- Construction personnel will participate in a NMFS approved worker environmental awareness program. A qualified biologist will inform all construction personnel about the life history of Central Valley steelhead and its potential presence in the project area as well as explain the state and federal laws pertaining to protecting this species and its habitat.
- Pile driving will not occur within 50 feet of the Cosumnes River outside of the Salmonid work window.

Swainson's Hawk

- Preconstruction surveys will be conducted no less than 14 days and no more than 30 days before the project starts.
- If an active nest is found a qualified biologist will monitor the active nest during construction activities to ensure that no interference with the hawks' breeding activities occurs.
- Removal of any trees within the project area should be done outside of the nesting season, however, if a tree needs to be removed during nesting season a qualified biologist will inspect the tree prior to removal to ensure that no nests are present.

INVASIVE SPECIES

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas.

To minimize the risk of introducing additional non-native species into the area, only native plant species appropriate for the project area will be used in any erosion control or re-vegetation seed mix or stock.

Construction Impacts

TEMPORARY AIR QUALITY AND NOISE IMPACTS DURING CONSTRUCTION

Air Quality

Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Noise

Caltrans requires the Contractor to conform to the provisions of Standard Specification, Section 14-8.02 "Noise Control".

- Do not exceed 86 dBA LMax at 50 feet from the job site activities from 9 p.m. to 6 a.m.
- Equip an internal combustion engine with manufacturer-recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

Appendix D. List of Technical Studies

Air Quality Assessment (Air Quality Report, Caltrans 2014)

Floodplain Hydraulic Study (Floodplain Report, Caltrans 2013)

Historic Property Survey Report (Archaeology, Caltrans 2014)

Historic Resource Evaluation Report (Architectural History, Caltrans 2014)

Initial Site Assessment (Hazardous Waste, Caltrans 2014)

Natural Environment Study and Biological Assessment (Biology, Caltrans 2014)

Noise Assessment (Noise Report, Caltrans 2014)

Utilities Conflicts Study (2014)

Visual Impact Assessment (VIA, Caltrans 2014)

Water Quality Assessment Exemption (NPDES, Caltrans 2013)