

**STAFF REPORT
C24**

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04/05/19
W 27199
G. Asimakopoulos

GENERAL LEASE – PUBLIC AGENCY USE

APPLICANT:

California Department of Transportation (Caltrans)

PROPOSED LEASE:

AREA, LAND TYPE, AND LOCATION:

Sovereign land in the American River, adjacent to Assessor's Parcel Numbers 001-0070-005 and 274-0120-010, in the city of Sacramento, Sacramento County.

AUTHORIZED USE:

Use of a temporary construction easement; installation, use, and maintenance of a temporary construction trestle; removal of existing rock slope protection; installation of filter fabric at the bridge piers; placement of new rock slope protection at the bridge piers; and removal of the temporary construction trestle; as part of the American River Bridge Scour Repair Project.

LEASE TERM:

6 years, beginning April 5, 2019.

CONSIDERATION:

The public benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interests.

SPECIFIC LEASE PROVISIONS:

1. Lessee shall not place, attach, or authorize placement or attachment of any utilities or other improvements on the bridge or within the Lease Premises without the Commission's prior review and approval. Separate leases or subleases are required and shall be obtained for all utilities not operated by Lessee.
2. Lessee shall place warning signage or buoys, or both, clearly visible from the shore and in the water, both upstream and downstream of the construction site, to provide notice of the Project

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and to advise the public to exercise caution. Lessee shall place and maintain such signage at all times during the term of the Project and shall notify the California Department of Parks and Recreation's Division of Boating and Waterways of the location, description, and purpose of such signage upon its installation and removal.

STAFF ANALYSIS AND RECOMMENDATION:

Authority:

Public Resources Code sections 6005, 6216, 6301, 6501.1, and 6503; California Code of Regulations, title 2, sections 2000 and 2003.

Public Trust and State's Best Interests Analysis:

On November 18, 1965, the Commission authorized the issuance of a continuous Public Agency Permit and Right-of-Way Map to the State Division of Highways (Caltrans), pursuant to Section 101.5 of the Streets and Highways Code, for the existing American River Bridge, Bridge No. 24-0001L (Bridge), located on State Route 160 at the American River ([Item C26, November 18, 1965](#)). The bridge is a five-span closed-spandrel concrete arch bridge, originally built in 1928. It was widened to a three-lane bridge to support additional lanes of traffic in 1934, and in 1987, a single light rail track was introduced to provide passenger service in both directions. The existing structure is now approximately 55 feet wide and 620 feet long.

In July 2010, the Bridge's scour potential was assessed in accordance with the Federal Highway Administration's Technical Advisory T5140.23, "Evaluating Scour at Bridges," and within current Caltrans guidelines. It was determined that the Bridge was scour critical. Caltrans has applied for a General Lease – Public Agency Use, for the construction, use, and maintenance of a temporary construction trestle, and use of a temporary construction easement in the American River as part of the Bridge Scour Repair Project (Project). The purpose of the Project is to preserve the integrity and stability of the Bridge by reducing further scour. The proposed lease area runs parallel to the south bound State Route 160 portion of the bridge (see Exhibit B).

Caltrans has selected Rock Slope Protection (RSP) as the preferred alternative. The existing RSP will be removed down to the mudline, filter fabric will be placed around and on the existing piers, and new RSP will be placed around each pier. The footprint of the RSP around each pier will extend approximately 20 inches beyond the existing piers. Removal and

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installation of new RSP is expected to be performed with an excavator and/or crane.

A temporary trestle will be utilized during construction of the Project. The trestle would be constructed from the north side of the river at the bottom of an existing ramp leading down from an adjacent mobile home park. The trestle is expected to be 20 to 30 feet wide and extend from the north bank to the south side of pier 2 (the southernmost pier). The south levee will not be used for construction access and the trestle will not extend to the south levee. Sections of trestle fingers will extend laterally from the main trestle along each side of the bridge piers to provide working access under the Bridge. The fingers would be constructed in the same manner as the main trestle across the channel and would also be 20 to 30 feet wide. A portion of the trestle will be designed and constructed in a manner such that it can be shifted onto an adjacent portion of trestle to make an opening for boats and other river traffic to pass through.

The temporary trestle will be constructed on bents supported by temporary 18 to 20-inch-diameter steel pipe piles capped or braced by steel beams. Each bent will be comprised of five piles, each bent spaced 30 to 35 feet apart. Construction of the temporary trestle is, therefore, expected to require the temporary installation of approximately 306, 18 to 20-inch-diameter steel pipe piles. The steel pipe piles proposed for the temporary trestle will be installed by pile-driving. The piles may be initially placed using a vibratory hammer; however, the ultimate steel pipe pile driving is accomplished using an impact pile-driving hammer. The steel pipe piles for the temporary trestle are expected to be driven to a depth of approximately 30 feet below the mudline. Following construction activities, the temporary trestle will be completely disassembled and removed. The temporary steel pipe piles are expected to be removed using a vibratory extractor. The contractor will remove portions of the trestle once the work requiring those portions has been completed so that the trestle can be progressively pulled and disassembled.

Construction of the Project is planned to be completed over two construction seasons, and in-water construction activities will be limited to the period from July 15 to October 15 for each season. At the completion of the first season, the decking of the trestle can be removed leaving only the piles in place until the next season. These piles will cause minimal river-bottom disturbances and other impacts between seasons.

The public's right to access and use California's navigable waters is a mandate of the California Constitution (article X, section 4), a condition of

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statehood in the Act of Admission of the State of California into the Union (9 Stat. 452, Sept. 9, 1850), and a responsibility of all involved public agencies pursuant to the common law Public Trust Doctrine. Bridges are often the most logical location for the public to access a waterway because kayakers, rafters, and others may legally utilize the public access easements around bridges to enter and exit navigable waterways. Furthermore, bridges and roads are critical infrastructure that are necessary to facilitate the movement of goods, people, and services throughout the State. The movement of goods is a critical part of local, state and national commerce; and the creation and maintenance of the instrumentalities of commerce is essential to a thriving economy. While the existing Bridge does not currently facilitate water-dependent activities, it facilitates commerce and does not interfere with navigation, water-dependent recreation, or other Public Trust uses along the American River in any substantive way.

The proposed lease includes certain provisions protecting the public use of the proposed lease area by requiring Caltrans to obtain necessary permits for the Project, to place warning signs and buoys near the Bridge, and to minimize interference with public use to the extent feasible. The Project is intended to reinforce the Bridge in the long-term interest of public health and safety. Caltrans has also adopted a Mitigation and Monitoring Program to substantially reduce or eliminate potentially significant impacts resulting from the Project.

The lease does not alienate the State's fee simple interest or permanently impair public rights. The lease requires Caltrans to conduct all repair and maintenance work safely and indemnify the Commission in the event of any liability resulting from the proposed lease. The lease does not grant the lessee exclusive rights to the lease premises and is also limited to a term of 6 years. Staff believes activities under the lease will not substantially impair the public rights to navigation and fishing or substantially interfere with the Public Trust needs and values at this location, at this time, and for the foreseeable term of the lease. Staff believes this use of State land, by a public agency, for a public benefit is in the best interests of the State.

Climate Change Analysis:

The Highway 160 Bridge is located in the Lower American River. The Project is intended to reinforce the structural armoring of the bridge piers and footings within the riverbed. River flows in the Lower American River are managed by controlled releases from Nimbus Dam.

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The lease area is not tidally influenced, and therefore would not be subject to sea-level rise. However, as stated in *Safeguarding California Plan: 2018 Update* (California Natural Resources Agency 2018), climate change is projected to increase the frequency and severity of natural disasters related to flooding, drought, and storms. In rivers, more frequent and powerful storms can result in increased flooding conditions and damage from storm-created debris. Conversely, prolonged droughts could dramatically reduce river flow and water levels, leading to loss of public access and navigability. Climate change will further influence riverine areas by changing erosion and sedimentation rates, and flooding and storm flow, as well as runoff, will likely increase scour, decreasing bank stability at a faster rate.

Due to these climate change influences, the Bridge could need more frequent reinforcement in the future to withstand higher levels of flood exposure and more frequent storm events. Regular maintenance, as required by the lease, will reduce the likelihood of severe structural degradation or dislodgement.

Conclusion:

For the reasons stated above, staff believes the issuance of the proposed lease will not substantially impair the public rights to navigation, fishing, or other Public Trust needs and values at this location, at this time, and for the foreseeable term of the proposed lease; and is in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. This action is consistent with Strategy 1.1 of the Commission's Strategic Plan to deliver the highest levels of public health and safety in the protection, preservation, and responsible economic use of the lands and resources under the Commission's jurisdiction.
2. A Mitigated Negative Declaration, State Clearinghouse No. 2017072043, was prepared for this Project by Caltrans and adopted on January 25, 2018. Staff has reviewed this document and the avoidance, minimization, and mitigation measures that were made a condition of Project approval.
3. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon staff's consultation with the persons nominating such lands and through the California Environmental Quality Act (CEQA) review process, it is

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staff's opinion that the project, as proposed, is consistent with its use classification.

APPROVALS REQUIRED:

U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service
California Department of Fish and Wildlife
Central Valley Regional Water Quality Control Board

EXHIBITS:

- A. Land Description
- B. Site and Location Map
- C. Mitigation Monitoring Program

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that a Mitigated Negative Declaration, State Clearinghouse No. 2017072043, including avoidance, minimization, and mitigation measures, was prepared by Caltrans and adopted on January 25, 2018, for this Project and that the Commission has reviewed and considered the information contained therein; that in the Commission's independent judgment, the scope of activities to be carried out under the lease to be issued by this authorization have been adequately analyzed; that none of the events specified in Public Resources Code section 21166 or State CEQA Guidelines section 15162 resulting in any new or substantially more severe significant impact has occurred; and, therefore no additional CEQA analysis is required.

Adopt the Mitigation Monitoring Program, as contained in the attached Exhibit C.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that the issuance of the proposed lease will not substantially impair the public rights to navigation, fishing, or other Public Trust needs and values at this location, at this time, and for the foreseeable term of the lease; and is in the best interests of the State.

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SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

Authorize issuance of a General Lease – Public Agency Use to the California Department of Transportation beginning April 5, 2019, for a term of 6 years, for the use of a temporary construction easement; installation, use, and maintenance of a temporary construction trestle; removal of existing rock slope protection; installation of filter fabric at the bridge piers; placement of new rock slope protection at the bridge piers; and removal of the temporary construction trestle; as part of the American River Bridge Scour Repair Project; as described in Exhibit A, Land Description, and shown on Exhibit B, Site and Location Map (for reference purposes only), attached and by this reference made a part hereof; consideration being the public benefit, with the State reserving the right at any time to set a monetary rent, as specified in the lease, if the Commission finds such action to be in the State's best interests.

EXHIBIT A

W 27199

LAND DESCRIPTION

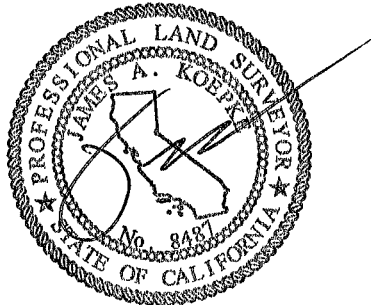
A sixty (60) foot wide strip of submerged land, situate in the bed of the American River, lying adjacent on the left bank to those lands designated as Rancho New Helvetia, and patented June 20, 1866, County of Sacramento, State of California and more particularly as follows:

BOUNDED on the southeast by the northwesterly right-of-way line as shown on that "101.5 Map, State of California, Highway Transportation Agency, Department of Public Works, Division of Highways, District 3, Route 160, Post Mile 44.6", City of Sacramento, County of Sacramento, on file at the Sacramento office of the California State Lands Commission as map index code CXB 4240; BOUNDED on the northeast by the Ordinary High Water Mark of the right bank of the American River; BOUNDED on the northwest by a line running parallel to and 60 feet perpendicular of said right-of-way line; BOUNDED on the southwest by the Ordinary High Water Mark of the left bank of said river.

EXCEPTING THEREFROM any portion lying landward of the Ordinary High Water Mark of the right and left banks of the American River.

END OF DESCRIPTION

Prepared 03/01/2019 by the California State Lands Commission Boundary Unit.



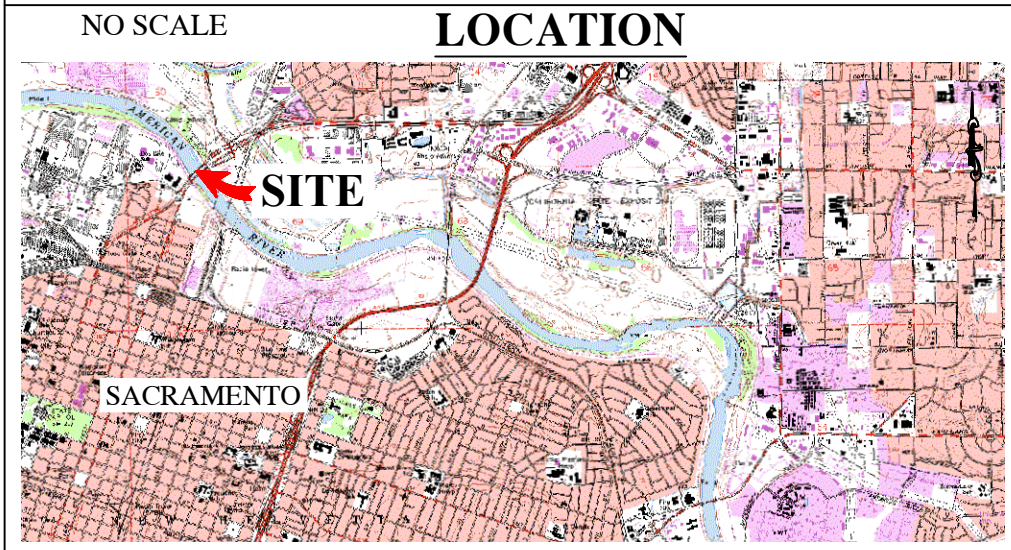
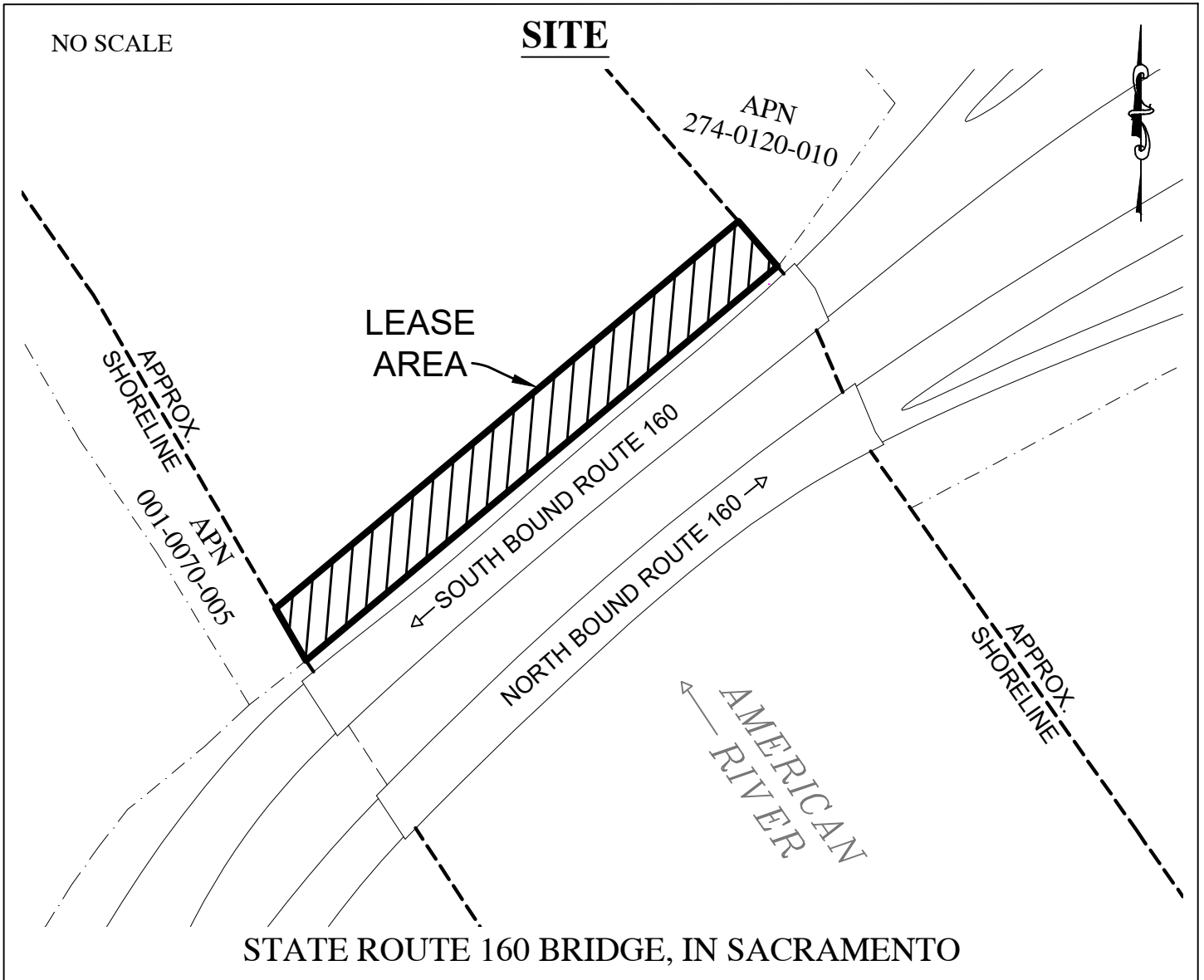


Exhibit B

W 27199

CALIFORNIA DEPARTMENT
OF TRANSPORTATION
GENERAL LEASE -
PUBLIC AGENCY USE
SACRAMENTO COUNTY



This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM
LAGOON CREEK BRIDGE AND AMERICAN RIVER BRIDGE SCOUR REPAIR
PROJECT

(W27199, State Clearinghouse No. 2017072043)

The California State Lands Commission (Commission) is a responsible agency under the California Environmental Quality Act (CEQA) for the Lagoon Creek Bridge and American River Bridge Scour Repair Project (Project). The CEQA lead agency for the Project is the California Department of Transportation (Caltrans).

In conjunction with approval of this Project, the Commission adopts mitigation measures for the implementation of the portions of the Project located on Commission land. The purpose of the measures is to avoid or substantially reduce the significant environmental impacts from a Project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration (MND). State CEQA Guidelines section 15097, subdivision (a), states in part:¹

In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

The lead agency has adopted an MND (State Clearinghouse No. 2017072043), and mitigation measures were made a condition of Project approval for the whole of the Project. In addition, the lead agency incorporated into the Project Description certain avoidance and minimization measures intended to reduce potential effects to insignificance (see Attachment C-1). The lead agency remains responsible for ensuring that implementation of the mitigation measures and avoidance and minimization measures occurs. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below. The Commission's jurisdiction in the Project area is limited to the State Route 160 Bridge over the American River. The full text of each avoidance and minimization measure and mitigation measure, as set forth in the MND prepared by the CEQA lead agency and listed in Table C-1, is incorporated by reference in this Exhibit C.

¹ The State CEQA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

Table C-1. Project Impacts and Applicable Mitigation Measures (MMs) and Avoidance and Minimization Measures (AMMs)

Biological Resources Mitigation Measures	
MM BIO-1	Comply with the measures listed in Attachment C-1 of Exhibit C for MM BIO-1.
MM BIO-2	Comply with the measures listed in Attachment C-1 of Exhibit C for MM BIO-2.
Utilities/Emergency Services Avoidance and Minimization Measures	
AMM UTIL-1	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM UTIL-1.
Water Quality and Storm Water Runoff Avoidance and Minimization Measures	
AMM WQ-1	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM WQ-1.
AMM WQ-2	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM WQ-2.
AMM WQ-3	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM WQ-3.
AMM WQ-4	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM WQ-4.
AMM WQ-5	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM WQ-5.
Hazardous Waste/Materials Avoidance and Minimization Measures	
AMM HAZ-1	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM HAZ-1.
AMM HAZ-2	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM HAZ-2.
AMM HAZ-3	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM HAZ-3.
AMM HAZ-4	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM HAZ-4.
Biological Resources Avoidance and Minimization Measures	
AMM BIO-1	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-1.
AMM BIO-2	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-2.
AMM BIO-3	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-3.
AMM BIO-4	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-4.
AMM BIO-5	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-5.
AMM BIO-6	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-6.
AMM BIO-7	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-7.
AMM BIO-8	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-8.

Table C-1. Project Impacts and Applicable Mitigation Measures (MMs) and Avoidance and Minimization Measures (AMMs)

AMM BIO-9	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-9.
AMM BIO-10	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-10.
AMM BIO-11	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-11.
AMM BIO-12	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-12.
AMM BIO-13	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-13.
AMM BIO-14	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM BIO-14.
Air Quality Avoidance and Minimization Measures	
AMM AIR-1	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM AIR-1.
Noise Avoidance and Minimization Measures	
AMM NOI-1	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM NOI-1.
Transportation Avoidance and Minimization Measures	
AMM TRANS-1	Comply with the measures listed in Attachment C-1 of Exhibit C for AMM TRANS-1.

ATTACHMENT C-1

**Avoidance and Minimization Measures and
Mitigation Measures as a Condition of Project Approval by the
California Department of Transportation**

Appendix B : Avoidance, Minimization, and/or Mitigation Summary

UTILITIES/EMERGENCY SERVICES

The following avoidance and minimization measures are recommended:

- AMM UTIL-1** Notify emergency public services, such as medical services, law enforcement agencies, fire departments, and local ambulance services prior to construction. Propose alternative routes.

Implement a TMP for this project. A TMP is a program of activities for alleviating or minimizing work-related traffic delays by applying traditional traffic handling practices and innovative strategies including public awareness campaigns, motorist information, demand management, incident management, system management, construction methods and staging, and alternate route planning. TMP strategies also strive to reduce overall duration of work activities where appropriate. Typical components of a TMP can include measures such as the implementation of staging, traffic handling, and detour plans; restricting construction work to certain days and/or hours to minimize impacts to traffic and pedestrians; coordination with other construction projects to avoid conflicts; and the use of portable changeable message signs to inform the public of construction activities.

WATER QUALITY AND STORM WATER RUNOFF

The following recommended avoidance and minimization measures at both locations will be implemented:

- AMM WQ-1** 1. The project shall adhere to the conditions of the statewide NPDES Permit issued by the State Water Resources Control Board, (Order No. 2012-0011-DWQ, NPDES Permit No. CAS000003) and all adopted amendments to this Permit. This statewide Permit regulates storm water and non-storm water discharges from Caltrans' properties and facilities, and discharges associated with operation and maintenance of the State highway system. Caltrans facilities include, but are not limited to, maintenance stations/yards, equipment storage areas, storage facilities, fleet vehicle parking and maintenance areas and warehouses with material storage areas.
- AMM WQ-2** 2. Adherence to the requirements of the Statewide NPDES General Permit For Storm Water Discharges Associated With Construction And Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) and all adopted amendments to this General Permit is necessary if the project disturbs one or more acres of land surface or is part of a larger common plan of development or sale that disturbs more than one acre of land surface.
- AMM WQ-3** 3. All applicable guidelines and requirements in the 2015 Caltrans Standard Specifications (CSS) Section 13 should be followed regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, water conveyance systems, and other bodies of water. Some of the pertinent specifications relating to the activities proposed and anticipated are mentioned include to following:
- a. If the project entails 1 acre or more of DSA, an approved SWPPP will be necessary which specifies the level of temporary pollution control measures for the project (as stated in CSS Section 13-3).
 - b. During construction operations, attention by field inspectors and construction staff should be given to CSS Section 13-4, Job Site Management. It requires the Contractor to control and prevent spills; address material waste and non-storm water management; and covers dewatering activities (among other things). As such, the Contractor prepared

SWPPP (or WPCP) will describe mitigation measures that address effective handling, storage, usage, and disposal practices meant to control material pollution and manage waste and non-storm water at the job site before they encounter any storm drain system or receiving water.

- c. Focus and attention (during construction) should be given to CSS 13-4.03E(5), which details specifics and requirements meant to address the use of material and equipment at, near, or over waterways.
- d. For areas involving concrete placement, CSS Sections 13-9.02C and 13-9.02D is required to be followed and covers the handling of concrete waste during construction operations.

AMM WQ-4 4. Existing drainage facilities should be identified and protected by the application of appropriate Construction Site BMPs, and all BMPs implemented must be routinely inspected for effectiveness and modified accordingly (by the Contractor).

AMM WQ-5 5. The Caltrans' SWMP, the Project Planning and Design Guide Section 4, and the Evaluation Documentation Form (EDF) provide detailed guidance in determining if a specific project requires the consideration of permanent treatment BMPs. At this time, it is not anticipated that treatment BMPs will need to be considered.

HAZARDOUS WASTE/MATERIALS

AMM HAZ-1 *Aerially Deposited Lead (ADL):*

- Use Caltrans Standard Special Provision (SSP) 7-1.02K(6)(j)(iii)_earth material containing lead.

Soil generated from within the creek channel bed and creek embankments do not require special soil handling and may be reused or disposed of as non-hazardous soil.

AMM HAZ-2 *Asbestos Containing Materials (ACM's):*

- Use SSP 14-9.02_NESHAP Notification.

The US EPA has established the National Emission Standards for Hazardous Air Pollutants (NESHAP). Under the Health & Safety Code § 39658(b)(1), your demolition and rehabilitation activities must comply with 40 CFR 61, Subpart M (National Emission Standard for Asbestos).

- Use N-SSP 14-11.11_ACM for management of asbestos cement pipe in the ground (removal and disposal).

AMM HAZ-3 *Traffic Stripe - lead/chromium based paint:*

- Use SSP 36-4_residue containing lead from for paint and thermoplastic.

Section 36-4 includes specifications for performing work involving residue from grinding and cold planing that contains lead from paint and thermoplastic.

- Use SSP 84-9.03C_for removal when residue is definitely non-hazardous, for new yellow paint and all other colors of paint.

Residue from the removal of painted or thermoplastic traffic stripes and pavement markings contains lead from the paint or thermoplastic. The average lead concentrations are less than 1,000 mg/kg total lead and 5 mg/L soluble lead.

- Use SSP 14-11.12_remove Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue.

Section 14-11.12 applies if the removal of existing yellow thermoplastic and yellow painted traffic stripe and pavement marking that will produce hazardous waste residue is specified in the special provisions. Section 14-11.12 includes specifications for removing, handling, and disposing of yellow thermoplastic and yellow painted traffic stripe and pavement marking. The residue from the removal of this material is a Department-generated hazardous waste.

AMM HAZ-4 Treated Wood Waste:

- Use SSP 14-11.09_treated wood waste.

Section 14-11.09 includes specifications for handling, storing, transporting, and disposing of treated wood waste (TWW).

WETLANDS AND OTHER WATERS

Wetlands

The following avoidance/minimization measures will apply to wetlands at both locations:

- AMM BIO-1** 1. Establish Environmentally Sensitive Areas: Additional direct and indirect impacts to sensitive biological resources throughout the project area will be avoided or minimized by designating these features outside of the construction impact area as “Environmentally Sensitive Areas” (ESAs) on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not necessarily limited to, the use of temporary orange fencing to identify the proposed limit of work in areas adjacent sensitive resources or to locate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be prohibited (including the staging/operation of heavy equipment or casting of excavated materials). ESA provisions will be implemented as a first order of work and remain in place until all construction activities are complete.

- AMM BIO-2** 2. Containment Measures / Construction Site Best Management Practices: The Contractor shall implement measures so as to contain construction related material, in manageable locations, and prevent debris from entering surface waters during in-water work and for construction operations outside of receiving waters.

Best Management Practices (BMPs) utilized for erosion control will be implemented and in place prior to, during, and after construction to ensure that no silt or sediment enters receiving waters. Areas where a disturbance of soil has occurred will be stabilized appropriately and approved by the Central Valley RWQCB prior to filing the Notice of

Termination. BMPs options and the selected measures deployed, which relate to in-water work, will be considered, evaluated, and dependent on factors such as field conditions, changes to construction strategies, and regulatory requirements in order to protect the beneficial uses of receiving waters. The project design team may specify BMPs to be utilized during construction in addition to, or in place of, other temporary measures selected by the Contractor.

Compliance with all construction site BMPs, specified in the approved Water Pollution Control Program (WPCP) and any other permit conditions, is mandatory to minimize the introduction of construction related contaminants and sediment to receiving waters. In order to achieve this and reduce the potential for discharge, the Contractor shall follow all applicable guidelines and requirements in the 2015 Caltrans Standard Specifications (2015 CSS), Section 13, regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water. Project specific BMPs shall address (among other things) soil stabilization, sediment control, wind erosion control, vehicle tracking control, non-storm water management, and waste management practices and will be based on the best conventional and best available technology. Caltrans staff and the Contractor shall perform routine inspections of the construction area to verify that field BMPs are properly implemented, maintained, and are operating effectively and as designed. BMPs and measures selected must meet the standards and objectives to minimize water pollution impacts set forth in the 2015 CSS and shall include (but not be limited to) the following:

- Conduct all in-water work within streams or wetlands that provide habitat for special status fish species (American River and SR 99) between July 15th and October 15th.
- Use only equipment in good working order and free of dripping or leaking engine fluids. Conduct any necessary equipment washing where water is prevented from flowing into MS4 drainage conveyance systems and receiving waters.
- In case of an accidental spill, an "emergency response plan" will be prepared and submitted to NOAA Fisheries and CDFW for review and approval at least 14 days prior to conducting any construction work. A spill prevention control and countermeasures plan will be onsite and in place to handle any topside spills. The plan will include strict onsite handling rules to keep construction and maintenance materials from entering the river, including procedures related to refueling, operating, storing, and staging construction equipment, as well as preventing and responding to spills. The plan also will identify the parties responsible for monitoring the spill response. During construction, any spills will be cleaned up immediately according to the spill prevention and countermeasure plan.
- BMPs for spill containment measures (plastic sheeting, absorbent pads and/or other containment devices) will be utilized during all barge-mounted or trestle-mounted construction activities. BMPs will be deployed around and beneath all over-water or barge-mounted / trestle-mounted construction equipment. Supplemental equipment will be on-site to collect and remove any spills.
- Prevent discharge of turbid water to the American River or SR 99 during any construction activities including, but not limited to de-watering activities, by filtering the discharge first using a filter bag, diverting the water to a settling tank or infiltration areas, and/or treating the water in a manner to ensure that discharges conform to the water quality requirements of the waste discharge permit issued by the Central Valley RWQCB prior to entering receiving waters.

AMM BIO-3 3. Environmental Awareness Training for Construction Personnel: Before any work occurs in the project area, including grading and tree removal, Caltrans' contractors will retain a

qualified biologist (familiar with the resources to be protected) to conduct a mandatory contractor/worker environmental awareness training for construction personnel. The awareness training will be provided to all construction personnel (contractors and subcontractors) to brief them on the need to avoid effects to sensitive biological resources (e.g., riparian vegetation, wetlands, special-status species, nesting birds, and protected trees) adjacent to construction areas and the penalties for not complying with applicable state and federal laws and permit requirements. The biologist will inform all construction personnel about the life history and habitat requirements of special-status species with potential for occurrence onsite, the importance of maintaining habitat, and the terms and conditions of the biological opinion or other authorizing document (e.g., letter of concurrence). Proof of this instruction will be submitted to the project proponent, and other overseeing agencies (i.e., CDFW, USACE, and/or CVRWQCB), as appropriate.

The environmental training also will cover general restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on sensitive biological resources during project construction. General restrictions and guidelines that will be followed by construction personnel are listed below:

- Project-related vehicles will observe the posted speed limit on hard-surfaced roads and a 10 mile-per-hour speed limit on unpaved roads or access areas during travel within the project limits.
- Project-related vehicles and construction equipment will restrict off-road travel to the designated construction area.
- Vegetation clearing and construction operations will be limited to the minimum necessary.
- All food-related trash will be disposed of in closed containers and removed from the project site at least once a week during the construction period. Construction personnel will not feed or otherwise attract wildlife to the project site.
- No pets or firearms will be allowed on the project site.
- To prevent possible resource damage from hazardous materials such as motor oil or gasoline, construction personnel will not service vehicles or construction equipment outside designated staging areas.
- The training also will include identifying the BMPs written into construction specifications for avoiding and minimizing the introduction and spread of invasive plants.

4. Limit Vegetation Removal: Vegetation removal shall be limited to the absolute minimum amount required for construction.
5. Restrict Timing of Woody Vegetation Removal: Complete the removal of any woody vegetation (trees and shrubs) required for the project between August 31st and February 14th prior to project construction, outside of the predicted nesting season for raptors and migratory birds in this area. Vegetation removal outside this time period may not proceed until a survey by a qualified biologist determines no migratory bird nests are present or in use (see below).
6. Restore/Revegetate Temporarily Affected Areas Onsite: Disturbed areas within the construction limits will be graded to minimize surface erosion and siltation into receiving waters. The streambeds and banks will be re-contoured to as close to pre-project condition as possible. Stream-banks and adjacent areas that are disturbed by construction activities

AMM BIO-4

will be stabilized as soon as feasible as (and no later than October 15th of each construction season) to avoid erosion during subsequent storms and runoff.

An onsite restoration and revegetation plan will be prepared by the District Biologist and Restoration Specialist and submitted to the permitting agencies for review and approval prior to project construction. Once construction is complete, a final site review will be performed by the District Biologist and Restoration Specialist to ensure that pre-project topography is restored and appropriate for seeding/planting. Bare areas will be treated for erosion control by covering with mulch and re-vegetating with appropriate native species. Construction site BMPs will be utilized to prevent contamination of watercourses from construction material and debris. If any restoration planting work is required, it is expected to be implemented using the California Conservation Corps, with oversight provided by the Caltrans Restoration Specialist and Project Biologist.

Permanent erosion control seeding will be performed at all disturbed sites by hydro-seeding with an application of native grass straw mulch over the course of construction as each site is completed, with all sites seeded by the completion of construction activities. If any additional riparian restoration planting are required that uses container plants, it will be conducted the first fall following the first growing season post construction. This allows observation of water flow patterns (that then direct the planting distribution of these species) and allows observation and addressing of any problems resulting from winter flows.

Any seed or container plants will be generated from materials collected from the vicinity of the project or of similar elevation and habitat characteristics. Willow cuttings for use in biotechnical bank stabilization will be obtained from the vicinity of the project from along the existing Caltrans right of way or from sites approved by the Resident Engineer in coordination with the Revegetation Specialist/Project Biologist.

In addition, the following mitigation measure applies:

MM BIO-1

Mitigation: Compensate for Permanent Impacts to Wetlands: The USACE's 2008 Mitigation rule (33 CFR Part 332) establishes standards and criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee-responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the United States authorized through the issuance of Department of the Army permits pursuant to section 404 of the Clean Water Act. When considering options for successfully providing the required compensatory mitigation, the district engineer shall consider the type and location options in the order presented: 1) Mitigation Bank Credits; 2) In-Lieu Fee Program Credits; 3) Permittee-Responsible Mitigation.

To compensate for the permanent project impacts on potentially jurisdictional wetlands, Caltrans will purchase credits at an approved mitigation bank or through the participation in the U.S. Army Corps of Engineers (USACE) - National Fish and Wildlife Foundation in-lieu fee program. Currently, USACE-approved wetland mitigation banks with available wetland credits and a "service area" that includes the SR 99 Bridges in southern Sacramento County include the Clay Station Mitigation Bank, Elsie Gridley Mitigation Bank, and the Toad Hill Ranch Mitigation Bank. The minimum wetland compensation ratio will be 1:1 (1 acre of wetland habitat credit for every 1 acre of impact) to ensure no net loss of wetland habitat functions and values.

Other Waters

AMM BIO-5 Avoidance/minimization measures Numbers 1 – 6 in the Wetland section also apply to other waters.

Caltrans shall implement “Restore Temporarily Affected Areas On-Site” at all temporarily disturbed stream-courses and streambanks, and shall consider incorporating bio-technical erosion control such as willow cuttings in the restoration design where feasible.

SPECIAL STATUS ANIMAL SPECIES

Avoidance/minimization measures Numbers 1 - 6 in the Wetland section also apply to animals. The following additional measures also apply.

SR 160 and SR 99

AMM BIO-6 Avoidance and Minimization of Impacts to Special Status Fish Species - In Stream Work Window:

Construction Activities (All Locations): Conduct all in-water work, including barge operation, temporary trestle construction, and project construction activities within streams or wetlands that provide habitat for special status fish species between June 15th and October 15th. In order to feasibly complete the proposed work at each location within two construction seasons, portions of the proposed in-water work windows of June 15th to October 15th fall outside of the NOAA Fisheries and CDFW recommended in-water work for avoiding effects to listed salmonids and North American green sturgeon in the project action area.

AMM BIO-7 Nesting Migratory Bird Avoidance

Vegetation Removal and Ground Disturbance: The contractor shall take such measures as necessary to prevent disturbing any areas that will cause conflict between performing necessary work and nesting migratory birds.

Birds shall be allowed to nest in any areas where conflicts with construction are not anticipated. If contractors work does not conflict with bird nesting, then no further measures are required

If contractors perform woody vegetation removal or other construction activities within nesting bird habitat between September 2nd and February 14th then no further measures are required.

Bridge/ Structures Work: The contractor shall take such measures as necessary to prevent disturbing portions of the bridge structure that will cause conflict between performing necessary work and nesting migratory birds.

Birds shall be allowed to nest on portions of the bridge where conflicts with construction are not anticipated. If contractors work does not conflict with bird nesting, then no further measures are required.

If work interfering with bird nesting sites is proposed to occur between February 15th and September 1st then:

- Exclusionary devices such as netting shall be used to block access to bird nesting sites where work will be performed. Exclusionary devices shall be installed After September 1st, but before February 15th, and left in place until work is completed.

If nesting birds cannot be excluded from areas conflicting with proposed construction activities, and work potentially interfering with active migratory bird nests is proposed to occur between February 15th and September 1st, then

- A focused survey for active nests of such birds shall be conducted by a qualified biologist within 15 days prior to the beginning of project-related activities. If active nests are found, Caltrans shall consult with USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act 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 15 days or longer occurs, another survey and, if required, consultation with USFWS and CDFW will be required before the work can be reinitiated.

If contractors work on the bridge structures occurs between September 2nd and February 14th, then no further measures are required.

AMM BIO-8 Roosting Bat Avoidance

Vegetation Removal: The contractor shall take such measures as necessary to prevent disturbing any areas that will cause conflict between performing necessary work and day-roosting or maternity-roosting bats.

Bats shall be allowed to roost in any areas where conflicts with construction are not anticipated. If contractors work does not conflict with bird nesting, then no further measures are required

Bridges/Structures Work: The contractor shall take such measures as necessary to prevent disturbing portions of the bridge structure that will cause conflict between performing necessary work and day-roosting bats.

Bats shall be allowed to roost on portions of the bridge where conflicts with construction are not anticipated. If contractors work does not conflict with bat roosting, then no further measures are required.

If work interfering with known bat *day-roosts* or potential bat day-roosting structures is proposed to occur between February 15th and September 1st, exclusionary devices shall be used to block access to bat day-roosting sites where work will be performed. Exclusionary devices shall be installed after September 1st but before February 14th and left in place until work is completed.

An optional measure is to install a temporary bat roost ("bat box") on the bridge structure prior to February 15th to discourage the use of more marginal day roost sites on the structure. The biologist will decide if this measure would be necessary.

If contractors work on the bridge structure occurs between September 2nd and February 14th, then no further measures are required

If bat day-roosting areas cannot be excluded, and work potentially interfering with known bat day-roosts or potential bat day-roosting structures is proposed to occur between February 15th and September 1st, then:

A qualified biologist shall perform a pre-construction roosting bat survey. If bat day-roosts are found, project related work interfering with bat day-roosts will not occur until Caltrans performs consultation with CDFW regarding appropriate action to comply with provisions of the Fish and Game Code of California, and California Code of Regulations.

AMM BIO-9 **SR 160**

Avoidance and Minimization of Impacts to Special Status Fish Species - Aquatic Sound

Attenuation Devices: This measure consists of furnishing, installing operating, maintaining and removing an aquatic sound attenuation system to reduce noise generated by driving piles in the water.

Approved aquatic sound attenuation systems include:

- 1) Air bubble curtain used with attenuation casing (confined air bubble curtain).
- 2) With approval from the NOAA-Fisheries, the USFWS, and CDFW, the following aquatic sound attenuation systems may be used:
 - De-watered attenuation casing
 - De-watered cofferdam

The contractor will submit working drawings and the supplement for a proposed sound attenuation system to the Caltrans Engineer for approval in conformance with the provisions of Section 5-1.23 "Submittals" of Caltrans 2015 Standard Specifications, and shall include the following:

- Complete details of the system including mechanical and structural details
- Details of anchorage components, air compressors, supply lines, distribution manifolds, aeration pipes and frames
- Details of proposed means of isolating noise-producing systems on the driving platform
- Details of meters gauges, and recording devices
- Details of the manufacturer's recommendations for the installation of the flow meters in conditions of laminar flow and non-laminar flow.

The supplement to the working drawings shall include the following:

- Documentation of previous successful use of the system to be used for sound attenuation
- Materials list including name of manufacturer and the source, model number, description, and standard of manufacture
- Manufacturer's descriptive data and catalog cuts for all products proposed for the system including air compressors

The engineer will be required to inspect any sound attenuation system for proper operation before each deployment and as necessary during deployment. Proper operation during deployment will be determined by the gauges in the monitoring system and by other methods determined by the engineer. Air pressure and air flow meters and gauges will be calibrated by a private laboratory approved by the Caltrans engineer prior to use in the air bubble curtain system. The condition of the sound attenuation system will be monitored and daily inspection reports will be prepared during pile installation operations and no less than every other day during periods of no activity.

Any approved sound attenuation system must be operating prior to beginning pile driving at any given pile location. If the attenuation system fails, pile driving shall immediately stop and may not resume at that location until it is again operating.

A sound attenuation system is not required for pile or casing installation using a vibratory hammer. Pile driving equipment shall be isolated from the platform it is on. The isolation shall be such that noise from the pile driving operation is not transmitted through the platform to the water. The platform supporting the pile driving equipment is not required to be contained within the attenuation system.

AMM BIO-10 Avoidance and Minimization of Impacts to Special Status Fish Species – Pile Removal BMPs:

The purpose of the following BMPs is to control turbidity and sediments re-entering the water column during pile removal (removal of temporary trestle piles at the SR 160 ESL), and prescribe debris capture and disposal of removed piles and debris.

- Vibratory extraction is the preferred method of pile removal. Crane operator shall be trained to remove pile slowly. This will minimize turbidity in the water column as well as sediment disturbance.
- Operator to “Wake up” pile to break up bond with sediment.
- Vibrate to break the skin friction bond between pile and soil. Bond breaking avoids pulling out a large block of soil – possibly breaking off the pile in the process. Usually there is little or no sediment attached to the skin of the pile during withdrawal. In some cases material may be attached to the pile tip, in line with the pile.
- Extraction equipment shall be kept out of the water. A creosote release to the environment may occur if equipment (bucket, steel cable, vibratory hammer) pinches a creosoted piling below the water line. Piling must not be broken off intentionally by twisting, bending or other deformation. This practice has the potential for releasing creosote to the water column. Work surface on barge deck or pier shall include a containment basin for pile and any sediment removed during pulling. Upon removal from substrate the pile shall be moved expeditiously from the water into a containment basin. The pile shall not be shaken, hosed off, stripped or scraped off, left hanging to drip or any other action intended to clean or remove adhering material from the pile.
- Pulled pile shall be placed in a containment basin to capture any adhering sediment. This should be done immediately after the pile is initially removed from the water.

Work surface and containment basin shall be cleaned by disposing of sediment or other residues along with removed piling in a manner complying with applicable federal and state regulations.

SR 99

Avoidance and Minimization of Impacts to Special Status Species - De-Watering Activities, Clear Water Diversion: Temporary de-watering or clear water diversion may be necessary to conduct project construction activities below the OHWM of SR 99 or within project area wetlands. Clear water diversion consists of a system of structures and measures that intercept clear surface water runoff upstream of a project site, transport it around the work area, and discharge it downstream with minimal water quality degradation for either the project construction operations or the construction of the diversion. Clear water diversions are used in a waterway to enclose a construction area and reduce sediment pollution from construction work occurring in or adjacent to water.

Any intakes that may be required for water pumps associated with wetting/ irrigation/ water diversion of sites shall be screened to CDFW specifications to avoid the intake of fish and amphibians. Temporary fills used for diversion structures may consist of sandbags, clean and washed spawning-quality gravels, "aqua-dams" or similar materials; diversion structure materials shall be free of "fine" sediments that could be discharged into receiving waters. The contractor is responsible for submitting proposals for any stream diversions, and therefore water-diversion and/or de-watering plans have not yet been prepared for the proposed project, however, clear water diversions must be constructed in accordance permit conditions and in accordance with the "Caltrans Storm Water Quality Handbooks, March 1, 2003" *Section 7: Construction Site Best Management Practices Manual Clear - Water Diversion NS-5*.

THREATENED AND ENDANGERED SPECIES

Avoidance/minimization measures Numbers 1 - 6 in the Wetlands section also apply to threatened and endangered species. The following additional measures also apply.

All Locations

AMM BIO-11 Giant Garter Snake Work Window:

Construction activity within GGS upland habitat will be conducted between May 1st and October 1st. This is the active period for GGS and direct mortality is lessened, because GGS are expected to actively move and avoid danger.

Construction activity within GGS aquatic habitat will be conducted between June 15th and October 15th, the minimization window for special status fish species that are expected to inhabit the waters of the American River and Lagoon Creek. This time period is also during the active period for GGS and direct mortality is lessened, because GGS are expected to actively move and avoid danger.

AMM BIO-12 Giant Garter Snake - Pre-construction GGS Survey: Twenty-four-hours prior to the commencement of construction activities, the project area shall be surveyed for GGS by a USFWS and/or CDFW-approved biologist. The biologist will provide the USFWS and CDFW with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction activities. The project area shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred. If GGS are encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the species will not be harmed.

AMM BIO-13 Swainson's Hawk – Avoid or Minimize Effects to Active Nesting

A qualified biologist shall perform a pre-construction Swainson's hawk survey according to the protocol outlined in the May 2000 "*Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Surveys in California's Central Valley*." The protocol surveys are recommended to take place during the 2017 and/or 2018 survey seasons. Pre-construction-season surveys will assist with project planning, the development of avoidance, minimization, and mitigation measures, and can identify potential impacts that may not be addressed in the document.

If a Swainson's Hawk nest is detected inside of, or within approximately ½-mile of the SR 160 ESL or the SR 99 ESL during the nesting bird surveys conducted during any active construction season, the project proponent will notify the CDFW. If construction or other project related activities which may cause nest abandonment or forced fledging are necessary within the buffer

zone, monitoring of the nest site by a qualified biologist (to determine if the nest is abandoned) shall be required. If it is abandoned and if the nestlings are still alive, the project sponsor shall fund the recovery and hacking (controlled release of captive reared young) of the nestling(s). Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within ¼-mile of an active nest will not be prohibited. If a nest tree must be removed, authorization from the CDFW (including conditions to off-set the loss of the nest tree) must be obtained.

MM BIO-2

California Central Valley steelhead- mitigation for rearing habitat impacts:

To compensate for unavoidable impacts to wetlands and habitat that may be used as rearing habitat by California Central Valley steelhead, mitigation bank credits, in-lieu fee program credits, or oversee permittee-responsible mitigation at a minimum ratio of one acre for every acre lost above the ordinary high water mark. These credits shall be purchased from a NMFS-approved conservation bank or in-lieu fee program that benefits steelhead prior to project completion.

SR 160

Avoidance of Impacts to VELB Habitat During Construction Activities: Complete avoidance may be assumed when a 20-foot wide buffer is established and maintained around elderberry shrubs containing stems measuring 1" or greater diameter at ground level (as per "Revised Policy on VELB Effects and Compensation" Federal Highways Administration, July 25, 2002). All elderberry shrubs that are determined to be avoided will be fenced and flagged. Exclusionary fencing shall be placed at least 20 feet away from the shrub drip-line. Fences will have signs erected every 50 feet along the edges of the avoidance areas with the following information: "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". No insecticides, herbicides, fertilizers, or other chemicals that might harm the VELB of its host plant will be used in the buffer areas.

SR 99

Avoidance and Minimization of Impacts to FESA-listed Fish Species – De-Watering Activities, Fish Relocation: After any water diversion structures are in place and before dewatering is initiated, qualified fish biologists who have authorization from CDFW and NOAA-Fisheries will be on site to capture and relocate fish from areas to be dewatered. During dewatering, water will be incrementally diverted from the cofferdam, with diversion progressively increasing over a four-hour period in the following increments: 50%, 75%, 90%, and 100%. Incremental reduction in flow allows fish that elude initial capture to move to deeper habitats where they can be captured and relocated before affected stream segments are completely dewatered. The biologists will relocate fish to suitable habitat outside of the construction area. The methods of removal and relocation of fish captured during the dewatering of the construction areas will be implemented in close coordination with CDFW.

Avoidance and Minimization of Impacts to FESA-Listed Fish Species – Minimize Effects of Construction Lighting: Caltrans will minimize the effects of lighting on steelhead by avoiding construction activities at night, to the extent practicable, by using the minimal amount of lighting necessary to safely and effectively illuminate the work areas, and by shielding and focusing lights on work areas and away from water surfaces.

Giant Garter Snake Avoidance - Construction Monitoring: A Service-approved biologist will inspect and monitor all construction-related activities within the project area to attempt to minimize take of the snake or the destruction of its habitat. If snakes are encountered during

construction activities, the biologist will notify the Service immediately to determine the appropriate procedures related to the collection and relocation of the snake. A report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the snake, within one (1) business day. The biologist will be required to report any take of listed species to the Service immediately by telephone at 916-414-6600 and by electronic mail or written letter addressed to the Chief, Sacramento Valley Division, within one (1) working day of the incident.

During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to the minimal area necessary.

Giant Garter Snake Avoidance: Project Area Speed Limits: Project-related vehicles will observe a 20-mile-per-hour speed limit within construction areas, except on existing paved roads where they will adhere to the posted speed limits.

Giant Garter Snake Avoidance - De-Watering Activities: Aquatic habitat for the GGS will be dewatered, and then remain dry and absent of aquatic prey for 5 days prior to the initiation of construction activities. If complete dewatering is not possible, the Service will be contacted to determine what additional measures may be necessary to minimize effects to the snake. After the aquatic habitat is de-watered, snake exclusionary fencing will be established in the uplands immediately adjacent to aquatic snake habitat and extending up to 200 feet from construction activities. Snake exclusionary fencing will be buried at least six inches below the ground to prevent snakes from attempting to burrow or move under the fence.

Mitigation Measure

Giant Garter Snake Habitat Compensation: As per the guidance provided in the expired USFWS/FHWA 2005 programmatic, compensation for Level 3 projects (projects that require more than one season to construct and result in permanent impacts) requires that the *permanent* loss of GGS aquatic and upland habitat will be compensated at a ratio of 3 acres created for every acre lost.

At Lagoon Creek under Alternative 1, 0.29 acre of permanent GGS habitat loss will be compensated by 0.6 acre of GGS habitat. GGS mitigation credits shall be purchased at the at USFWS- and CDFW-approved GGS mitigation bank.

At Lagoon Creek under Alternative 2, Option 1, 0.003 acre of permanent GGS habitat loss will be compensated by 0.009 acre of GGS habitat. GGS mitigation credits shall be purchased at the at USFWS- and CDFW-approved GGS mitigation bank.

At Lagoon Creek under Alternative 2, Option 2, 0.005 acre of permanent GGS habitat loss will be compensated by 0.15 acre of GGS habitat. GGS mitigation credits shall be purchased at the at USFWS- and CDFW-approved GGS mitigation bank.

At Lagoon Creek under Alternative 2, Option 3, 0.007 acre of permanent GGS habitat loss will be compensated by 0.021 acre of GGS habitat. GGS mitigation credits shall be purchased at the at USFWS- and CDFW-approved GGS mitigation bank.

INVASIVE SPECIES

AMM BIO-14 Avoidance/minimization measures Numbers 1 – 4 and 6 in the Wetlands section also apply to invasive species. The following additional measures for both locations also apply.

Weed Free Erosion Control and Revegetation Treatments: To further minimize the risk of introducing additional non-native species into the area, only locally adapted plant species appropriate for the project area will be used in any erosion control or revegetation seed mix or stock.

AIR QUALITY

AMM AIR-1 Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction. The provisions of Section 14-9.02, Air Pollution Control, and Section 14-9.03 Dust Control require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

NOISE

AMM NOI-1 During construction, however, noise may be generated from the contractors' equipment and vehicles. Noise generated during construction could be contained. Caltrans Standard Specifications, a required part of all construction, Section 14-8.02A, Noise Control specified as follows:

"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 the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler."

TRANSPORTATION

AMM TRANS-1 Caltrans prepared a TMP in January 2015. The plan recommends the following measures:

- On State Route 99, due to high traffic volumes in this location, work will be limited to nighttime hours and no lane or shoulder closures will be allowed during daytime and peak commute hours on weekdays.
- Work may be performed without restriction if all existing traffic lanes remain open and work is performed behind K-rail. When K-rail is used, gawk screen will be required to prevent excessive slowing of traffic through the project limits.
- Lane closures will be performed in accordance with Standard Plan Sheet T10, "Traffic Control System for Lane Closure on Freeways and Expressways".
- No lane closures, shoulder closures, or other restrictions will be allowed on designated holidays and the day preceding designated holidays, and when construction operations are not actively in progress.
- Portable changeable message signs will be required in the direction of traffic for each lane, shoulder or ramp closure.
- Work at these locations will require the assistance of COZEEP with a full time presence.
- Coordination with projects within, or nearby the project limits will be required to avoid conflicts.
- Lane closure charts, specifications and final TMP estimate will be developed prior to P&E.

Following these TMP measures will minimize traffic impacts during construction.