

Staff Report 23

PERMITTEE/APPLICANT:

California Department of Transportation

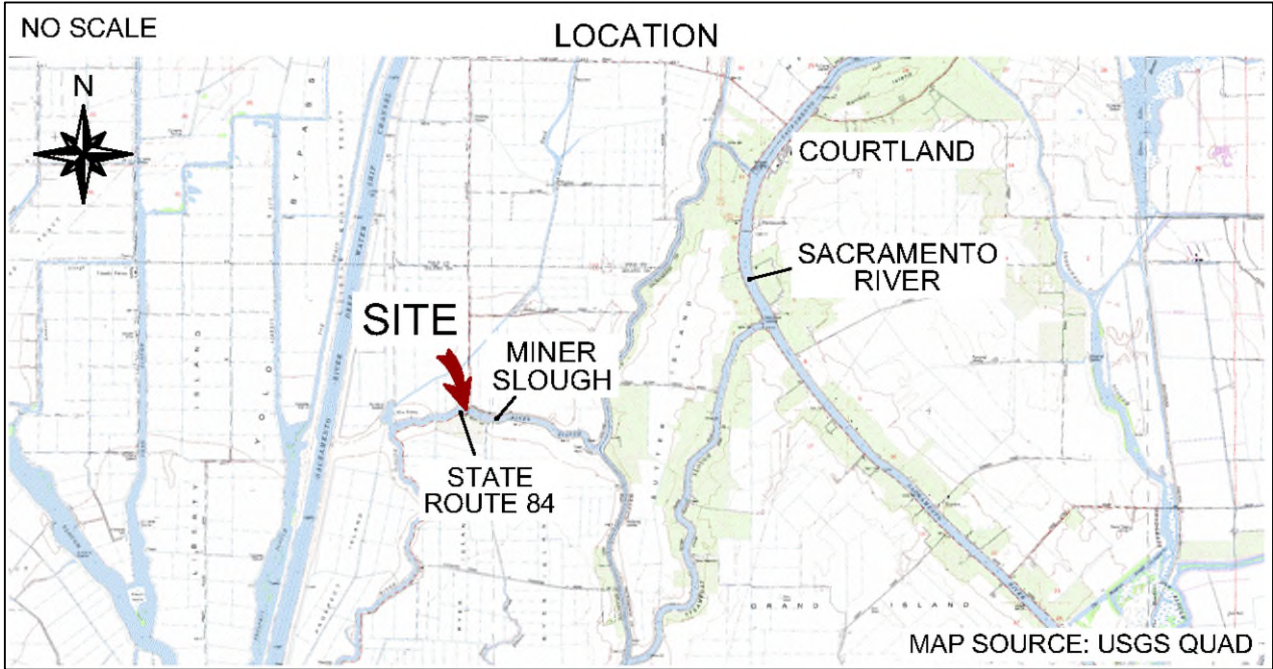
PROPOSED ACTION:

Termination of an existing Public Agency Permit and Right-of-Way Map; and Issuance of a Public Agency Permit and Right-of-Way Map Pursuant to Section 101.5 of the Streets and Highways Code and Section 6210.3 of the Public Resources Code.

AREA, LAND TYPE, AND LOCATION:

Sovereign land in Miner Slough, along State Route 84, near Ryer Island, Solano County (as shown in Figure 1).

Figure 1. Location



AUTHORIZED USE:

Removal of the existing Miner Slough Bridge and construction and use of a replacement bridge and fill for road widening within permanent rights-of-way (as shown in Figure 2).

TERM:

Continuous use, plus 1 year, beginning February 25, 2025.

CONSIDERATION:

Reasonable value of right-of-way to be deposited into the State Parks and Recreation Fund.

STAFF ANALYSIS AND RECOMMENDATION:

AUTHORITY:

Public Resources Code sections 6005, 6210.3, 6216, and 6301; Streets and Highways Code section 101.5.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

On November 23, 1940, the Commission authorized 13 rights-of-way to the California Division of Highways, including a continuous right-of-way, Permit 449, for the Miner Slough Bridge ([November 23, 1940](#)). On September 15, 1949, the Commission adopted a resolution authorizing the Commission to approve the actions of the Executive Officer at the 1940 meeting because that action was not reflected in the 1940 meeting minutes ([Item 5, September 9, 1949](#)).

The existing Miner Slough Bridge (No. 23-0035), located from post mile 12.1 to 12.2 on State Route (SR) 84 in Solano County, was built in 1933 and rehabilitated in 1953. The California Department of Transportation (Caltrans) is now proposing to conduct the Miner Slough Bridge Project (Project) to replace the existing structurally deficient bridge pursuant to section 101.5 of the Streets and Highway Code and section 6210.3 of the Public Resources Code. Caltrans submitted an application and proposed Right-of-Way Map for the Commission's consideration and approval to improve the seismic, safety, and operational designs to meet current standards; to maintain current vehicular capacity; to avoid further deterioration of the existing structure (including bridge pier footings); and to avoid maintenance efforts and costs currently associated with upkeep of the existing bridge.

The existing 367-foot-long by 18-foot-wide bridge accommodates one lane of traffic in each direction. It is a swing span structure (a span that rotates sideways on a central pivot to allow tall watercraft to pass through) with nonstandard features and is the only permanent physical connection from Ryer Island to surrounding areas.

The proposed 342-foot-long by 44-foot-wide fixed span, precast/prestressed concrete I-girder bridge would be located about 100 feet west of the existing alignment. The proposed bridge would provide a greater load rating and incorporate current standard features, including 12-foot-wide lanes and 8-foot-wide shoulders in each direction, which could accommodate pedestrians and cyclists. The current depth of Miner Slough at this location is approximately 6-feet-deep during Mean Higher Water (MHW). The proposed bridge would have a vertical clearance of 18 feet above MHW and a horizontal clearance of 85 feet. The vertical clearance would accommodate projected sea level rise in this area; however, the bridge is designed so the superstructure can be raised in the future in response to sea level rise.

SR 84 to the north of Holland Road would be realigned to meet the proposed bridge by shifting the roadway about 100 feet east for a length of about 900 feet north of Holland Road. The Right-of-Way Map shows the permanent right-of-way that would contain the location of the existing bridge and any associated remaining structures, the staging areas, and location of the proposed bridge and associated structures. A second, smaller permanent right-of-way, is requested for fill to widen SR 84 at Holland Road to accommodate truck turns. The new toe line for fill would be a maximum of 8 feet out from the edge of existing pavement on the slough side, and a maximum of 78 feet from the edge of existing pavement on the north side of Holland Road. Ryer Road will also be widened in the vicinity of the proposed bridge but will not extend into the Commission's jurisdiction.

Construction is scheduled to begin in October 2026. Work within Miner Slough is limited from August 1 to November 31 and is expected to take three construction seasons. The first phase of construction would include the new road segment leading to the new bridge. The construction of the new bridge will follow. During the construction of the new bridge, the current bridge will remain in use to limit detours and travel times. The final stage of construction will involve the breakdown of the current bridge.

Barges may be used to facilitate construction of the proposed bridge and demolition of the existing bridge. The types of equipment needed to complete the

construction may include, but are not limited to, the following: excavators, graders, cranes, pile drivers, loaders, telescoping forklifts, backhoe, concrete trucks and pumps, pavers, rollers, compactors, air compressors, portable generators, temporary signals, pile driving rigs/diesel hammer, and portable lighting.

TEMPORARY TRESTLES:

Two temporary trestles would be installed between the bridges to facilitate construction and removal activities, one next to each end of the bridges. There would be an opening of about 85 feet at the center of the slough for boat traffic to navigate between the two trestles. The trestle piles may be driven by an impact hammer or a vibratory hammer and would be spaced 5 feet to 10 feet apart. The number of piles is estimated to be approximately 132, at about 18 feet above MHW. Once construction is complete, the trestles would be taken away by crane, and the piles would be removed by a vibratory method or cut 3 feet below the mudline.

CONSTRUCTION OF PROPOSED BRIDGE:

The Project includes construction of three steel piers (Piers 2, 3, and 4) to support the bridge superstructure. Each pier would consist of two cast-in-steel-shell (CISS) pile shafts that support a cast-in-place drop cap. The superstructure spans will be precast prestressed "wide flange" girders that are placed on top of the drop caps.

For Pier 2, Pier 3, and Pier 4, CISS piles will be driven without cofferdams into the streambed using impact hammers, and the pile shells will be drilled out, leaving a plug of native material at the bottom. Rebar would be placed into the shells, which would then be filled with concrete. Forms would be built around the top of the shells to construct concrete caps approximately 9 feet wide by 5 feet high, on which the bridge girders will be supported. Piers 2 and 4 would be approximately 52 feet long and Pier 3 would be about 44 feet long. New navigational dolphins would be placed adjacent to Pier 2 and Pier 3 to identify the main channel. Four dolphin structures will be placed approximately 20 feet out from the edge of the bridge deck (upstream and downstream) and about 12 feet from Piers 2 and 3.

Abutments would be constructed on the levees at the ends of each approach span. A row of 30-inch-diameter CISS piles would be constructed to support each of the abutments. The abutments would be approximately 94-foot-long, 4-foot-wide, and 14-foot-high. To construct the abutments, a trench approximately 6-foot-wide, 5-foot-deep, and 96-foot-long would be excavated. Approximately 70-ft-long CISS piles would be driven into the trench, drilled out, and filled with rebar and

concrete. The cast-in-place concrete seat type abutment will be constructed over the tops of the piles to support the approach span.

REMOVAL OF THE EXISTING BRIDGE:

The existing bridge is composed of three primary sections. The main portion over the waterway consists of a 191-foot balanced cantilevered steel truss swing span that pivots on a reinforced concrete cylindrical pier. The ends of the cantilevered spans rest on fixed concrete piers. Approach spans are located on both sides of the main swing span. The north approach is six spans, and the south approach is three spans. Each approach span consists of two layers of timber deck planking which is overlaid with asphalt concrete (AC). The planking is supported by timber stringers and floor beams, which is then supported by the timber piling pier supports.

The swing spans may need temporary support to provide stability during the demolition of the truss. Cofferdams would be placed around the three main concrete piers within the waterway to aid removal of the existing substructure.

A crane would be used to remove the superstructure truss components, steel beams, cross beams, stringers, and the center swing pier after it is sawcut into smaller portions. A working platform would be used to catch chipped asphalt and concrete. The approach spans' superstructure would be removed in a similar way.

The piers, pilings, and existing dolphins would be removed at least 3 feet below the existing mudline. The approach span wooden bents would have concrete caps removed and the wood piles removed to at least 3 feet below the mudline. Disturbed soil would be restored to levee requirements.

STAFF RECOMMENDATION:

The public would be able to navigate kayaks and small recreational vessels and fish under the bridge. The swing span on the existing bridge is rarely operated and the U.S. Coast Guard, who monitors vessel traffic in this area, stated the clearance under the proposed bridge would be adequate. Per the Caltrans Public Access Feasibility Study for this Project dated January 10, 2025, public access improvements would be limited due to constraints facing the project. The bridge shoulders will be widened allowing pedestrians and cyclists improved access. Further recreational opportunities within the Project vicinity are limited due to the levees under U.S. Army Corps of Engineers (USACE) jurisdiction, endangered species and their habitat, and limited right of way surrounding the highway which abuts protected farmland. There are currently no designated access areas or public

parking in the immediate area of the bridge. The only recreational access point within one mile of the Project area is the Arrowhead Harbor and Marina.

Arrowhead Harbor Marina is a privately-owned boating facility located 0.8 miles from Miner Slough Bridge at 4396 Holland Road, Clarksburg, CA 95612. It offers various services for boaters, including boat slips, a boat launch, and a fuel dock.

Large, heavy equipment would be used to transport bridge material in and out of the Project vicinity. Recreational use of Miner Slough would be restricted to emergency personnel during this time due to safety concerns, even though measures would be in place to prevent falling debris. Caltrans will work with local recreational facilities to alert the public of the dates of closure.

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 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.

State Route 84 contains critical infrastructure that is necessary to facilitate the movement of goods, people, and services throughout the State. The proposed right-of-way will not permanently interfere with navigation, water-dependent recreation, or other Public Trust uses along this section of Miner Slough.

The permit does not alienate the State's fee simple interest and does not grant Caltrans exclusive rights to the right-of-way. Staff believe that the proposed right-of-way 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 term of the right-of-way. Moreover, staff believe this use of State land, by a public agency, for a public benefit is in the best interests of the State.

CLIMATE CHANGE:

Climate change impacts, including sea level rise, more frequent and intense storm events, and increased flooding and erosion, affect both open coastal areas and inland waterways in California. The facilities are located in Miner Slough, in a tidally influenced site vulnerable to flooding at current sea levels and at a higher risk of flood exposure given projected scenarios of sea level rise.

The California Ocean Protection Council updated the *State of California Sea Level Rise Guidance* in 2018 to provide a synthesis of the best available science on sea level rise projections and rates. Commission staff evaluated the "high emissions,"

“medium-high risk aversion” scenario to apply a conservative approach based on both current emission trajectories and the lease location and structures. The San Francisco tide gauge was used for the projected sea level rise scenario for the region as listed in Table 1.

Table 1. Projected Sea Level Rise for San Francisco

Year	Projection (feet)
2030	0.8
2040	1.3
2050	1.9
2100	6.9

Source: Table 13, [State of California Sea-Level Rise Guidance: 2018 Update](#)

Note: Projections are with respect to a 1991 to 2009 baseline.

Sea level rise could increase Miner Slough’s inundation levels within the lease area. In addition, 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, fire, drought, extreme heat, and storms (especially when coupled with sea level rise). In rivers and tidally influenced waterways, more frequent and powerful storms can result in increased flooding conditions and damage from storm-created debris as well as decreased bank stability and structure. Conversely, climate change induced droughts could decrease river levels and flow for extended periods of time. Climate change and sea level rise will further influence riverine areas by changing erosion and sedimentation rates. Flooding and storm flow, as well as runoff, will likely increase scour and decrease bank stability at a faster rate.

The combination of these projected conditions could increase the likelihood of damage to the lease premises during the term of the lease. For example, the potential for more frequent and stronger storm events may expose the lease area structures to higher flood risks and cause facilities to be damaged or dislodged, presenting hazards to public safety as well as dangers for navigation within the channel. Conversely, prolonged drought conditions could lower water levels, exposing previously submerged structures to the elements and potentially leading to increased wear and tear on bridge pier footings that keep the bridge in position on the riverbed. Lowered water levels could also reduce navigability of the channel, thereby increasing hazards and impacting the function and utility of the lease area structures.

The Project's Mitigated Negative Declaration (MND) assessed the impacts of sea level rise on this bridge in the Miner Slough. The Applicant acknowledged that a minimum of 18-foot clearance under the new bridge was based on the U.S. Coast Guard's guidance and was based on the limited vessel traffic, primarily recreational vessels, passing through the bridge. Therefore, the new bridge is expected to be more resilient to some climate change impacts. However, the bridge and the bridge pier footings will be fixed and therefore more vulnerable to sea level rise and more frequent or intensified scouring and more frequent storm events. Therefore, these structures may need maintenance, due to increased flood exposure and more frequent storm events, to ensure they do not become dislodged or degraded and to reduce risks to public safety and navigation.

The vegetated bank is protected with riprap and is at risk of scouring, loss of backfill, slope failure, and accelerated deterioration from sea level rise, currents, floods, and increased precipitation. As sea levels rise, the bank protection will also provide less defense against flood waters, increasing the vulnerability of the upland parcel. Maintaining a wide buffer between the bank and upland improvements will minimize potential impacts from flooding and erosion. The bank may also suffer increased erosion from sea level rise and storm flooding. In the future, if erosion of the bank protection requires modifications to the bank, Commission staff suggest the lessee consider nature-based solutions such as native vegetation to stabilize the sediment. Any future construction or activities on State land would require a separate authorization from the Commission.

Regular maintenance, as referenced in the lease, may reduce the likelihood of severe structural degradation or dislodgement. Pursuant to the proposed lease, the Applicant acknowledges that the lease premises and adjacent upland are located in an area that may be subject to the effects of climate change, including sea level rise.

CONCLUSION:

For all the reasons above, staff believe the approval of the Public Agency Permit and Right-of-Way Map for Miner Slough will temporarily impair the public rights to navigation during construction. However, staff believe this temporary impairment is justified to achieve long-term benefits. Approval of the permit will not substantially impair the public rights to navigation, fishing, or other Public Trust needs and values at this location, for the term of the permit and is in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. Approval or denial of the application is a discretionary action by the Commission. Each time the Commission approves or rejects a use of sovereign land, it exercises legislatively delegated authority and responsibility as trustee of the State's Public Trust lands as authorized by law. If the Commission denies the application, the Applicant will be unable to utilize the proposed Right-of-Way.
2. This action is consistent with the "Meeting Evolving Public Trust Needs", "Leading Climate Activism", and "Committing to Collaborative Leadership" Strategic Focus Areas of the Commission's 2021-2025 Strategic Plan.
3. Caltrans has filed a map showing the proposed rights-of-way with the Commission.
4. Section 101.5 of the Streets and Highways Code requires Caltrans to determine the reasonable value of the proposed right-of-way and to deposit that amount in the State Parks and Recreation Fund.
5. An MND, State Clearinghouse No. 201511201, was prepared for this project by Caltrans and adopted on July 5, 2017. As part of its project approval, Caltrans adopted an Avoidance, Minimization and/or Mitigation Summary which has been incorporated into an Environmental Commitments Record.

Staff have reviewed these documents and prepared an independent Mitigation Monitoring Program (attached, Exhibit A) that incorporates Caltrans's documents. Staff recommend adoption of Exhibit A by the Commission.

6. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but the activity will not affect those significant lands. Based upon participation from the agency nominating such lands through the California Environmental Quality Act (CEQA) review and permitting process, it is staff's opinion that the project, as proposed, is consistent with its use classification.

EXHIBITS:

- A. Mitigation Monitoring Program
- B. 101.5 Permit Map

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that a Mitigated Negative Declaration, State Clearinghouse No. 2015112011, was prepared by Caltrans and adopted on July 5, 2017, and 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 the State CEQA Guidelines section 15162 resulting in any new or substantially more severe significant impact have occurred; and, therefore no additional CEQA analysis is required.

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

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that approval of the permit will not substantially impair the public rights to navigation, fishing, or other Public Trust needs and values at this location and is in the best interests of the State.

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:

1. Authorize a termination, effective February 24, 2025, of Permit 449, a Public Agency Permit and Right-of-Way Map issued to the California Department of Transportation.
2. Authorize issuance of a Public Agency Permit to the Applicant and approve a Right-of-Way Map as submitted by the California Department of Transportation, pursuant to Section 101.5 of the Streets and Highway Code and as authorized by Section 6210.3 of the Public Resources Code, effective February 25, 2025, for Rights-of-Way with a term of continuous use plus one year; consideration being reasonable value of the rights-of-way to be deposited into the State Parks and Recreation Fund.

3. Authorize the Executive Officer, or their designee, to replace exhibits in the lease upon submission, review, and approval of as-built plans detailing the final location of the new improvements following construction and completion of the Environmental Commitments record.

EXHIBIT A
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM
MINER SLOUGH BRIDGE PROJECT
(A2308, State Clearinghouse No. 2015112011)

The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the Miner Slough Bridge Project (Project). The CEQA lead agency for the Project is the California Department of Transportation, District 4.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of measures for the portion(s) of the Project located on State lands. The purpose of an MMP is to impose feasible measures 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:

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 adopted an MND, State Clearinghouse No. 2015112011, and adopted measures for the whole of the Project as incorporated in the Environmental Commitments Record (ECR) (see Attachment A-1). The lead agency remains responsible for ensuring that implementation of the measures occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the measures listed in Table A-1 below. The full text of each measure, as set forth in the ECR prepared by the CEQA lead agency, is incorporated by reference in this Exhibit A. Any measures adopted by the Commission that differ substantially from those adopted by the lead agency are shown as follows:

- Additions to the text of the measure are underlined

Table A-1. Project Impacts and Applicable Measures

Potential Impact	Avoidance and Minimization Measure (AMM) and Mitigation Measure (MM) ¹	Difference Between CSLC MMP and Lead Agency ECR
Biology	AMMs BIO-3 through BIO-6, BIO-9 through BIO-14, BIO-16 through BIO-20, BIO-22 through BIO-24, BIO-26, BIO-27 AMMs WATER-1, WATER-3 MMs BIO-B, BIO-C, BIO-D, and BIO-F	None
Air Quality	AMM AIR-1	None
Cultural Resources	AMMs CUL-1, CUL-2	See below
Water Quality	AMMs WATER-1 through WATER-4	None
Geotech	AMM GEO-1	None

Addition to AMM CUL-1:

In the event of an unanticipated cultural resource discovery during construction, all ground disturbances within 60 feet of the discovery will be halted or redirected to other areas until the discovery has been documented by a qualified archaeologist and its potential significance evaluated in terms of applicable criteria. In addition, if requested by a Tribe, a Native American Monitor shall remain onsite during Project construction.

¹ See Attachment A-1 for the full text of each measure taken from the Environmental Commitments Record prepared by the CEQA lead agency.

ATTACHMENT A-1

CALTRANS ENVIRONMENTAL COMMITMENTS RECORD



Environmental Commitments Record (ECR)

DIST-CO-RTE: 04-SOL-084 **PM/PM:** 12.1/12.2

EA/Project ID.: EA 04-0G660 ID 0400000343

Project Description: Bridge Rehabilitation Project

Date (Last modification): 08/25/2020

Environmental Planner: Claudia Torres **Phone No.:** 510-932-2197

Construction Liaison: Ryan Graybehl **Phone No.:** 510.286.6071

Resident Engineer: **Phone No.:**

PERMITS

Permit	Agency	Application Submitted	Permit Received	Permit Expiration	Permit Requirement Completed by:	Permit Requirement Completed on:	Comments
1600	California Department of Fish and Wildlife	Enter date	3/24/17	Enter date	Enter Name	Enter date	Enter comments
2081 Incidental Take Permit	California Department of Fish and Wildlife	Enter date	Enter date	Enter date	Enter Name	Enter date	Enter comments
401	Regional Water Quality Control Board	8/19/21	10/14/21	Enter date	Enter Name	Enter date	Enter comments
404 Nationwide Verification	U.S. Army Corps of Engineers	2/27/17	12/10/18	Enter date	Enter Name	Enter date	Enter comments
Biological Opinion (USFWS)	U.S. Fish and Wildlife Service	1/11/16	5/1/17	Enter date	Enter Name	Enter date	Enter comments
Biological Opinion (NMFS)	National Marine Fisheries Service	1/11/16	6/20/16	Enter date	Enter Name	Enter date	Enter comments
Approved Jurisdiction Determination (AJD)	U.S. Army Corps of Engineers	11/17/14	4/7/15	Enter date	Enter Name	Enter date	Enter comments
State Lands Permit	State Lands Commission	Enter date	Enter date	Enter date	Enter Name	Enter date	Enter comments
						Enter date	Enter comments

ENVIRONMENTAL COMMITMENTS

PS&E/BEFORE RTL

Category	Task and Brief Description	Source	Included in PS&E package	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Completed on	Remarks	Mitigation for significant impacts under CEQA?
Landscape	Bridge Rail: Transparent bridge rail: ST-75 should be used. A galvanized or light color finish similar to the existing bridge would be appropriate	Structure Plans	Select a response	Structural Design	Incorporate in design plans	Enter date	Enter Name	Enter date	Enter remarks	No

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

ROW/PURCHASING

Category	Task and Brief Description	Source	Includ ed in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Complet ed on	Remarks	Mitigation for significant impacts under CEQA?
Select a category	Enter task and brief description	Enter source	Select a respon se	Enter name	Enter action	Enter date	Enter Name	Enter date	Enter remarks	Select a respon se
Select a category	Enter task and brief description	Enter source	Select a respon se	Enter name	Enter action	Enter date	Enter Name	Enter date	Enter remarks	Select a respon se

PRE-CONSTRUCTION

Category	Task and Brief Description	Source	Includ ed in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Complet ed on	Remarks	Mitigation for significant impacts under CEQA?
Biology	AMM BIO-11. Caltrans Biologist shall be notified at least 30 days prior to construction in order to survey the site, identify the population and relocate the Sanford's arrowhead and woolly rose-marrow.	NES	Select a respon se	RE/Biology/ Contractor	Notify Biologist to conduct survey and relocate plants	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-18. Aquatic habitat that will be disturbed or removed will be dewatered 15 days prior to the initiation of construction activities. If complete dewatering is not possible, potential snake prey (i.e., fish and tadpoles) will be removed so that snakes and other wildlife are not attracted to the construction area	USFWS BO	SSP	Contractor/ Caltrans r	Post construction restoration	Enter date	Enter Name	Enter date	Enter remarks	No

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

Category	Task and Brief Description	Source	Includ ed in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Complet ed on	Remarks	Mitigation for significant impacts under CEQA?
Biology	AMM BIO-11. The names and qualifications of the proposed Biological Monitor(s) will be submitted to Service for approval at least 30 calendar days prior to start of construction.	USFWS BO	Select a respon se	Biological Monitor	Qualified Biologist approval	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-4. Construction personnel will attend a mandatory environmental education program delivered by the Service approved Biological Monitor(s) prior to any work, vegetation clearing, or construction activities and an outline of the program will be submitted to the Service at least twenty (20) working days prior to the first training session.	USFWS BO/NMFS BO	SSP	Resident Engineer (RE) /Biology/ Contractor	Conduct environmental awareness program	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-16. Caltrans will install fencing showing the boundaries of the designated work area. Signs will be attached every 50 feet along the fencing adjacent to the identified elderberry shrubs 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." The signs will be clearly readable from a distance of 20 feet and will be maintained for the duration of construction.	USFWS BO/NMFS BO	SSP	RE/Biology/ Contractor	Install ESA fencing	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-17. The Service-approved Biological Monitor(s) will perform a giant garter snake clearance survey immediately prior to initial vegetation removal and ground disturbance- at sensitive locations. Safety permitting, the Biological Monitor will investigate areas of disturbed soil for signs of the giant garter snake within 30 minutes following initial disturbance of that given area.	USFWS BO	SSP	Biologist	GGs clearance surveys	Enter date	Enter Name	Enter date	Enter remarks	No

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

Biology	AMM BIO-17. Giant Garter Snake (GGS) Habitat Work Window: All construction activity in giant garter snake aquatic and upland habitat within 200 feet of aquatic habitat will be conducted between May1 and October 1 to coincide with the snake's typical active period. All that all construction activity is confined to upland habitat (over wintering and movement habitat), the initial grading and disturbance of the laydown and work areas in GGS habitat will occur during the snake's active season. Once the initial grading occurs, no further ground disturbing activities will occur, and mortality of any individuals during hibernation due to construction activities is not anticipated. Pre-construction surveys will be conducted by a USFWS-approved biological monitors(s) for the giant garter snake no more than thirty (30) calendar days prior to ground disturbance within 200 feet of aquatic habitat (including grubbing or vegetation removal. The biological monitor will investigate suitable aestivation burrows and other potential refugia for the giant garter snake. Following inspection, all burrows and other refuges that are expected to be disturbed or destroyed as a result of construction activities will be excavated by hand and then carefully collapsed or removed by or under the supervision of the USFWS-approved biological monitor. Exclusion fencing will be installed as stated above around the perimeter following the excavation and collapse of burrows and other refugia. The USFWS-approved biological monitor(s) will perform a giant garter snake clearance survey immediately prior to initial vegetation removal and ground-disturbing activities with special attention given to sensitive locations, such as work areas on the levees. Safety permitting, the biological monitor will investigate areas of disturbed soil for signs of the giant garter snake within 30 minutes following initial disturbance of the given area. If a giant garter snake is encountered during construction the USFWS approved biological monitor will have the authority, through communication with the resident engineer, to stop construction activities within 50 feet until appropriate corrective measures have been completed, or until the USFWS-approved biological monitor has determined the snake is out of harm's way. The priority will be to allow snakes to move away from the area on their own volition.	USFWS BO	SSP	Contractor/Caltrans	Post construction restoration	Enter date	Enter Name	Enter date	Enter remarks	No

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

Category	Task and Brief Description	Source	Include d in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Comple d on	Remarks	Mitigation for significant impacts under CEQA?
Biology	AMM BIO-17. At most, 24 hours prior to the commencement of construction activities in any given area, the location plus a 50 foot buffer will be surveyed for the giant garter snake by a Service-approved biologist. The project area will be re-inspected by the Service-approved biologist whenever a lapse in construction activity of two weeks or greater has occurred. If a giant garter snake is encountered during construction, the Service-approved Biological Monitor will have the authority, through communication with the Resident Engineer, to stop construction activities within 50 feet until appropriate corrective measures have been completed or until the Service-approved Biological Monitor has determined the snake is out of harm's way. The priority will be to allow snakes to move away from the area on their own volition.	USFWS BO	SSP	Biologist	Biologist understand terms and conditions of the BO	Enter date	Enter Name	Enter date	Enter remarks	
Biology	AMM BIO-11. Prior to working on the site, the approved Biological Monitor(s) will submit a letter to the Service verifying that they possess a copy of the BO and understand the Terms and Conditions.	USFWS BO	SSP	Biological Monitor(s)	Biologist understand terms and conditions of the BO	Enter date	Enter Name	Enter date	Enter remarks	
Biology	AMM BIO-24. Noxious weeds will be controlled in accordance with Caltrans' Highway Design Manual Topic 110.5 "Control of Noxious Weeds-Exotic and Invasive Species," Executive Order 13112 (Invasive Species), and by methods approved by Caltrans' landscape architect or vegetation control specialist.	USFWS BO	SSP	Contractor/RE/ Biologist	Noxious weed control					

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Biology	AMM BIO-10. Pre-construction nesting surveys will be performed along with nest monitoring and establishment of resource agency recommended buffers by a qualified biologist during the typical bird nesting season (February 1 through August 31).	USFWS BO	SSP	Biologist	Nesting bird surveys before construction	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-6. Pre-construction surveys will be conducted by a Service-approved Biological Monitor(s) for the giant garter snake no more than (30) calendar days prior to ground disturbance within 200 feet of aquatic habitat (including grubbing or in). The Biological Monitor will investigate suitable aestivation burrows and other potential refugia for the giant garter snake. Following inspection, all burrows and other refugia that are expected to be disturbed or destroyed as a result of construction activities will be excavated by hand and then carefully collapsed or removed by or under the supervision of the Service-approved Biological Monitor. Exclusion fencing will be installed, as stated above, around the perimeter following the excavation and collapse of burrows and other refugia.	USFWS BO	n/a	Biologist	GGs pre-construction surveys	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-11. At least 30 calendar days prior to groundbreaking, the Resident Engineer's name and telephone number will be provided to the Service. The Resident Engineer will send a letter to the Service verifying that they possess a copy of the BO and understand the Terms and Conditions.	USFWS BO	n/a	RE	Letter from RE to the USFWS	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-20. Caltrans will submit a restoration plan to the Service for approval prior to initial ground breaking.	USFWS BO	n/a	Biologist	Restoration plans submittal to USFWS					

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Biology	AMM BIO-23. If construction activities are planned to begin after March 1, a pre-construction breeding survey for Swainson's hawks will be conducted throughout areas of suitable nesting habitat within 0.5 mile of construction. If a Swainson's hawk nest is observed within 0.5 mile of planned construction activities, CDFW will be contacted to determine whether project related activities are likely to impact the nesting pair and whether additional avoidance and minimization measures can be established to avoid these impacts	USFWS BO	SSP	Biologist/RE/C ontractor	ESA fencing installation					
Biology	AMM BIO-23. If construction activities are planned to begin after March 1, a pre-construction breeding survey for Swainson's hawks will be conducted throughout areas of suitable nesting habitat within 0.5 mile of construction. If a Swainson's hawk nest is observed within 0.5 mile of planned construction activities, CDFW will be contacted to determine whether project related activities are likely to impact the nesting pair and whether additional avoidance and minimization measures can be established to avoid these impacts	NES	SSP	Contractor/Calt rans	Swainson's Hawk surveys to take place					

CONSTRUCTION

Category	Task and Brief Description	Source	Includ ed in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Complet ed on	Remarks	Mitigation for significant impacts under CEQA?
Air Quality	AMM AIR-1. Short term air quality effects during the proposed project's construction period will be addressed by Caltrans Special Provision and Standard Specification 14-9.02. Trucks and construction equipment emit hydrocarbons, oxides of nitrogen, carbon monoxide and particulates. Most project-related pollution during construction would consist of windblown dust generated by excavation, grading, hauling and various other activities. The effects from these activities would vary from day to day as construction progresses. The Special Provisions and Standard Specifications include requirements to minimize or eliminate dust during construction through the application of water or dust palliatives.	Env Docs	SSP	Contractors	Standard Specification 14-9.02 to be followed during construction	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM WATER-3. Best Management Practices. At a minimum, protective measures will include the following: Disallowing any discharge of pollutants from vehicle and equipment cleaning into any storm drains or watercourse. Keeping vehicle and equipment fueling and maintenance operations at least 50 feet away from watercourses, except at established commercial gas stations or established vehicle maintenance facility. Collecting and disposing of concrete wastes in washouts and water from curing operation. Neither will be allowed into watercourses. Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment. Using water trucks and dust palliatives to control dust in excavation and fill areas, covering temporary access road entrances and exits with rock (rocking), and covering of temporary stockpiles when weather conditions require. Protecting grading areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas,	USFWS BO	SSP	Contractor/RE	BMPS	Enter date	Enter Name	Enter date	Enter remarks	No

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	<p>and erosion control netting (such as jute or coir) as appropriate on slope areas. Establishing permanent erosion control measures such as bio-filtration strips and swales to receive stormwater discharges from the highway, or other impervious surfaces will be incorporated to the maximum extent practicable</p>									
Biology	AMM BIO-11. The Biological Monitor(s) will keep a copy of the BO in their possession when onsite.	USFWS BO	n/a	Biological Monitor	Keep copy of the BO onsite					

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Biology	Biological Monitor(s) Authority. The Biological Monitor(s) will have the authority to stop work that may result in the unauthorized take of the delta smelt, valley elderberry longhorn beetle, and giant garter snake through communication with the Resident Engineer. If the Biological Monitor(s) exercise this authority, the Service will be notified by telephone and e-mail within one (1) working day.	USFWS BO	SSP	Biological monitor/RE	Work stoppage upon species discovery	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM Water-1. Caltrans and standard BMPs, including a SWPPP, will be implemented to prevent sediment from entering adjacent upland and aquatic habitat and to reduce erosion, dust, noise, and other deleterious aspects of construction-related activities.	USFWS BO	SSP	RE / Contractor	BMPs and SWPPP implementation	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-9. The number of access routes, number and size of staging areas, and the total area of the proposed construction footprint will be limited to that which was described in the January 2016 BA. Routes and boundaries will be clearly demarcated. Movement of heavy equipment to and from the project site will be restricted to established roadways to minimize habitat disturbance. Project-related vehicles will observe a 2-mile-per-hour speed limit within construction areas, except on county roads and state and Federal highways. This is particularly important during periods when the snake may be sunning or moving on roadways. All heavy equipment, vehicles, and supplies will be stored at the designated staging area at the end of each work period.	USFWS BO	SSP	RE / Contractor	Restrict work to roadways and proposed construction footprint	Enter date	Enter Name	Enter date	Enter remarks	No

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Biology	AMM BIO-11. Daily Inspections. The Service-approved Biological Monitor will inspect the project site daily during active construction for compliance with the conservation measures and Terms and Conditions of this BO.	USFWS BO	n/a	Biological Monitor	Daily Inspections	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-18. Aquatic habitat that will be filled or surrounded by cofferdams will be dewatered 15 days prior to the initiation of activities within the coffer dam. If complete dewatering is not possible, potential giant garter snake prey (such as fish and tadpoles) will be removed so that snakes and other wildlife are not attracted to the enclosed area.	USFWS Bo	SSP	RE/Biologist/ Contractor	Dewatering restrictions	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-5. To avoid entrapment of the giant garter snake, thereby preventing injury or mortality resulting from falling into trenches, all excavated areas more than 1 foot deep will be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches will be covered with plywood or other hard material.	USFWS BO	SSP	RE/Contractor	Avoidance of GGs entrapment	Enter date	Enter Name	Enter date	Enter remarks	No

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Biology	AMM BIO-19. Tightly woven fiber netting or similar material will be used for erosion control and other purposes to minimize the likelihood of giant garter snake becoming trapped or entangled	USFWS BO	SSP	Contractor/RE	Tightly woven fiber roll/erosion control	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	Erosion Control and Revegetation. Caltrans will implement several erosion control measures to minimize sediment incursion into the active channel. Such measures will include the use of erosion control blankets, fiber rolls, and silt fences, where applicable. All disturbed areas will be hydroseeded or revegetated post-construction. Caltrans will also hydroseed all disturbed areas between construction seasons.	NMFS BO	SSP	Contractor/REr	BMPs	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-19. Tightly woven fiber netting or similar material shall be used for erosion control and other purposes within the project limits to ensure that the GGS does not become trapped or entangled. This limitation shall be communicated to the contractor using special provisions included in the bid solicitation package.	BO	SSP	Contractor/Caltran sr	Tightly woven fiber netting or similar material shall be used for erosion control and other purposes within the project	Enter date	Enter Name	Enter date	Enter remarks	No

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Biology	AMM BIO-13. During dewatering of the cofferdam for Pier 3, fish rescue and relocation will be conducted y a Service-approved Fish Monitor(s). The Service-approved Fish Monitor(s) will remain onsite during the entire dewatering process. Fish relocation will be accomplished by seining, dipnetting, and/or electrofishing. The Service-approved biologist will minimize handling of fish species, and all captured fish will be held in a container with a lid that contains cool, shaded water, adequately aerated water until relocated outside of the cofferdam.	USFWS BO	n/a	Biologist	Fish handling during dewatering	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-27. All food-related trash items, such as wrappers, cans, bottles, and food scrapes, will be disposed of in closed containers and removed from the entire project site at the end of each workday.	USFWS BO	SSP	Contractor	Trash removal	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM WATER-3. Materials containing possible contaminants, such as fuels, lubricants, oils, or solvents, will be stored offsite or in sealable containers at designated locations per applicable permits and Caltrans requirements.	USFWS BO	SSP	Contractor	Fuels/chemical storage offsite	Enter date	Enter Name	Enter date	Enter remarks	No
GGs Work Window	AMM BIO-17. All construction activity in giant garter snake aquatic and upland habitat within 200 feet of aquatic habitat will be conducted between May 1 and October 1 to coincide with the snake's typical active period.	USFWS BO	SSP	RE/Contractor	Giant snake work window May 1 to October 1	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-14. Hydroacoustic Monitoring Plan. Caltrans and/or its construction contractor will develop and implement a hydroacoustic monitoring plan.	USFWS BO	SSP	Biologist/RE/Contr actor	Develop and implement hydroacoustic plans	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-3. In-water Work Window. All in water work (including geotechnical investigation, trestle construction and removal, pile driving, fender installation, and removals) are proposed to occur between August 1 to November 30 when adult or juvenile delta smelt are least likely to be in the action area and to avoid or minimize incidental take of delta smelt eggs and larva in the action area	USFWS BO	SSP	RE/Contractor	Delta smelt work window August 1 to November 30	Enter date	Enter Name	Enter date	Enter remarks	No

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Biology	AMM BIO-27. The Caltrans Construction Support/Compliance Monitor(s) will inspect the project site within one (1) week prior to a forecasted rain event to ensure that adequate storm-water BMPs are properly installed. The Service-approved Biological Monitor(s) will also inspect the site during and/or within two (2) calendar days following the onset of a rain event to ensure that restarting activities would not result in harm to the delta smelt, valley elderberry longhorn beetle, and giant garter snake, and their habitat.	USFWS BO	SSP	Biologist/Contractor	Inspections before and after rain event.	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	Marking Work Limits. The work limits will be identified with high visibility fencing, flagging, or other obvious means. Limits will also be defined near other environmentally sensitive locations, such as bird nest sites. The features used to identify work boundaries will be removed at the end of construction within the given area, or in the bird nest example, when the nest is no longer active.	USFWS BO	SSP	RE/Biology/ Contractor	Identify work limits with high visibility fencing, flagging	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-11. Materials and equipment left onsite overnight will be inspected by the Service-approved Biological Monitor(s) prior to the beginning of each day's activities	USFWS BO	n/a	Biology	Inspect equipment for wildlife before work every day	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-14. Monitoring Turbidity Level. Caltrans will require the contractor to monitor turbidity levels in Miner Slough during in water construction activities.	USFWS BO	SSP	Contractor	Turbidity levels monitoring	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-12. To the extent practicable, nighttime construction will be minimized. In water work will be conducted during daylight hours only to provide fish in the action area with an extended quiet period during nighttime hours for feeding and unobstructed passage.	USFWS BO	SSP	RE/Contractor	Limited nighttime work	Enter date	Enter Name	Enter date	Enter remarks	No

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Biology	AMM BIO-27. No Firearms or Pets onsite. No firearms will be allowed on the project site except for those carried by authorized security personnel or local, state, or federal law enforcement officials. No pets will be allowed on the project site.	USFWS BO	SSP	RE/Biology/Contractor	No fire arms or pets onsite	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-16. No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant will be used within 100 feet of any elderberry plant.	USFWS BO	SSP	Contractor	No chemical usage next to elderberry plant.	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-14. If feasible, the contractor will vibrate all piles to the maximum depth possible before using an impact hammer. No more than 2 piles will be driven per day, and pile driving with an impact hammer will occur on no more than 24 days total during construction. During impact driving, the contractor will limit the number of strikes per day to the minimum necessary to complete the work, and will limit the total number of hammer strikes to 2,000 strikes per day. The smallest pile driver and minimum force necessary will be used to complete the work.	USFWS BO	SSP	RE/Contractor	Pile driving restrictions	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-11. Resident Engineer. The Resident Engineer will maintain a copy of the BI onsite whenever construction is taking place	USFWS BO	n/a	RE	Keep a copy of BO onsite	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	Settling Tanks Construction. Caltrans will construct one or more Baker tanks or other settling tanks onsite. Alternative methods may include pumping the water over the levee and allowing the water to filter through riparian vegetation before it re-enters the slough system. If the settling tank methods is used, all water removed from the area inside the cofferdam during construction and installation will be pumped into a settling tank until all sediments settle out of the water. This water will then be discharged downstream of the project area. Caltrans will also construct the cofferdam during low tide as much as possible to reduce the likelihood of a sediment plume washing away downstream. Sediment curtains may also be used outside the cofferdam as it is being installed. These measures will be included in the projects standard special provisions.	NMFS BO	SSP	Caltrans/Contractor	Settling tanks construction	Enter date	Enter Name	Enter date	Enter remarks	No

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Biology	AMM BIO-14. Sound Exposure Reduction. During impact driving, Caltrans will require the contractor to use a bubble ring or similar device to minimize the extent to which the interim peak and cumulative sound exposure level (SEL) thresholds are exceeded.	USFWS BO	SSP	RE/Contractor	Bubble ring usage for sound	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-26. To avoid and minimize the spread of invasive species, Caltrans will ensure equipment washing measures are in place prior to any equipment entering the slough channel. All equipment will be rewashed if the equipment is taken offsite and returned to the project area. Caltrans will incorporate these measures into the special standard provisions that will be incorporated into the final bid solicitation package.	NMFS BO	SSP	Contractor/RE	Invasive species control	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-9. Stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas identified in the January 2016 BA.	USFWS BO	SSP	RE/Contractor	Construction staging areas	Enter date	Enter Name	Enter date	Enter remarks	
Biology	AMM WATER-1. Stormwater Pollution and Prevention Plan. A stormwater pollution and prevention plan (SWPPP) will be required as part of this project. The SWPPP will include dedicated fueling and refueling practices.	NMFS BO	SSP	Contractor	SWPPP	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	AMM BIO-22. Removal of trees known to have supported nesting Swainson's hawks within the last five years will be avoided unless a Management Authorization is obtained from CDFW and if the removal is conducted between October 1 and February 1.	USFWS BO	SSP	Contractor/ Caltrans	Removal of trees known to have supported nesting Swainson's hawks within the last five years will be avoided.	Enter date	Enter Name	Enter date	Enter remarks	No

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Biology	AMM WATER-3. Waste management measures will be implemented to avoid fuel spills and properly dispose of excess concrete, soil, or other materials.	USFWS BO	SSP	Contractor/RE	Fuel spill control					
Cultural Resources	AMM CUL-2. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected of overlie remains, and the County Coroner contacted. Pursuant to 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) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District 4 Office of Cultural Resources Studies Chief 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.	Env Doc	SSP	Contractor	At this time, the person who discovered the remains will contact the District 4 Office of Cultural Resource Studies Chief					
Cultural Resources	AMM CUL-1. In the event of an unanticipated cultural resource discovery during construction, all ground disturbances within 60 feet of the discovery has been documented by a qualified archaeologist and its potential significance evaluated in terms of applicable criteria.	Env Doc	SSP	Contractor	Cultural resources discovery during construction all ground disturbances within 60 feet of the discovery will be halted or redirected to other areas until the discovery has been documented by a qualified archaeologist.					

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Water Quality	AMM WATER-2. Stockpile areas for construction materials, equipment, and debris will be placed greater than 150 feet away from Miner Slough as well as covered to minimize/avoid impacts to Miner Slough.	Env Doc	SSP	Contractor	Stockpile areas for construction materials equipment, and debris will be placed greater than 150 feet away from Miner Slough, as well as covered to minimize/avoid impact to Miner Slough.	Enter date	Enter Name	Enter date	Enter remarks	Yes
Water Quality	AMM-WATER-1. A storm water pollution plan (SWPPP) will be developed and implemented and will comply with the Caltrans Storm Water Management Plan, which includes measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges. Water quality inspector(s) will inspect construction areas to determine if the storm water BMPs are adequate and adjust them if necessary. Construction activities for the roadway improvements and bridge replacement and demolition will be regulated under the Construction General Permit. The SWPPP will be prepared by the contractor and approved by Caltrans	Env Doc	SSP	Contractor	Water Pollution Prevention Plan (SWPPP) will be developed and implemented.					

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Water Quality	<p>AMM WATER-3. Temporary Construction Site Best Management Practices (BMPs) These BMPs will be implemented throughout the duration of construction activities to avoid and minimize pollutant loads in potential stormwater/non-stormwater discharges. Construction Site BMPs strategies applicable to this project may include the following: soil stabilization, temporary fence (type ESA), move-in/move-out, hydroseeding, geotextiles, mats, plastic covers, and erosion-control blankets, hydraulic mulch sediment control, fiber rolls, silt fence, sediment trap, gravel bag berm, check dams, storm drain, inlet protection, tracking control practices, temporary construction entrance/exit, wind erosion controls, temporary covers, non-stormwater management, dewatering operations, material and equipment use over water, waste management and materials pollution control, concrete waste management, material delivery and storage, material use, stockpile management spill prevention and control, soil waste management, hazardous waste and/or contaminated soil management, and liquid waste management,. A spill plan will be in place and implemented for the geotechnical boring operation. The drilling will follow Caltrans Drilling Services Best Management Practices for Geotechnical Investigations. Caltrans standard BMPs will be implemented to control erosion and sedimentation during construction and post-construction. These are required by Caltrans statewide National Pollutant Discharge Elimination System permit, which also includes measures for storm water management. A SWPPP and erosion control BMPs will be developed and implemented to minimize wind and water related erosion. They will also be in compliance with the requirements of the Regional Water Quality Control Board and standards outlined in Caltrans BMP Guidance Handbook.</p>	Env Doc	SSP	Contractor	Temporary Construction Site Best Management Practices (BMPs) to be followed by Contractor					

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Water Quality	AMM WATER-4. Waste from removal of the existing bridge will be conducted in accordance with the Standard Specifications, under Section 13-4.03E(6) entitled: 'Structure Removal Over Adjacent to Water.' The contractor will comply with this standard specification during removal of the existing bridge. All grindings and asphaltic concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 150 feet from any culvert or drainage feature.	Env Doc	SSP	Contractor	Permanent Treatment BMPs will be followed by contractor					
Geotech	AMM GEO-1. Engineering design of project structures will be carried out in accordance with the latest version of the Caltrans Standard Design Criteria (SDC). The Caltrans seismic design methodology applies to all highway bridges designed in California. Fault rupture and ground shaking: engineering design of the new bridge, operator control house, and roadways will be carried out in accordance with Caltrans design standards, which take into account, for example, proximity to a fault. Because of the potential for ground shaking in the project area in the event of a large earthquake, Caltrans will perform a detailed seismic demand analysis and the bridge, embankments, slopes and roadway will be designed to withstand strong ground shaking. The measures to protect structures from ground shaking may include structural improvements/strengthening, as well as soil improvements. Liquefaction: because of the potential for liquefaction and lateral spreading, there is a potential for liquefaction and lateral spreading, there is a potential for the proposed structures to be damaged. Through the use of appropriate construction and design methods, in accordance with the Caltrans Highway Design Manual and Caltrans Design Information bulletins, the proposed project will not increase the potential for liquefaction at the proposed project site. Structural concerns regarding liquefaction will be addressed by incorporating appropriate construction and design methods.	Env Doc	n/a	Contractor	Engineering design of project structures will be carried out in accordance with the latest version of the Caltrans Standard Design Criteria (SDC)					

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POST-CONSTRUCTION

Category	Task and Brief Description	Source	Includ ed in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Complet ed on	Remarks	Mitigation for significant impacts under CEQA?
Biology	MM BIO-F. Compensatory Mitigation for CCV steelhead and Southern DPS green Sturgeon. Caltrans shall conduct onsite and offsite compensatory mitigation for temporary and permanent impacts to designated critical habitat per the NMPS biological opinion, Caltrans shall rehabilitate the construction zone through onsite planting of native riparian vegetation. Caltrans shall purchase mitigation credits at a NMFS approved conservation bank at a 2 to 1 ration for temporary losses and 3 to 1 ration for impacts to critical habitat in the action area associated with this project. Caltrans shall, to the maximum extent practicable and above the ordinary high water level, mix agricultural grade soil with RSP at a 70 to 30 ration (rock soil), cover the RSP with one foot of soil and plant native riparian shrubs and trees. All onsite riparian vegetation shall be watered and maintained to ensure maximum survival for a three year period following construction	BO	n/a	Caltrans	Compensatory Mitigation for CCV steelhead and southern DPS green sturgeon	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	MM BIO-C. Compensatory Mitigation for Delta Smelt and Longfin Smelt. Caltrans will compensate at a 3 to 1 ration for the net increase in the shading of delta smelt shallow water habitat (SWH). The proposed project will result in a net increase of 0.08 acre of shaded SWH, so Caltrans will purchase 0.24 acre of delta smelt mitigation credits	BO	n/a	Caltrans	Compensatory Mitigation for Delta Smelt and Longfin Smelt	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	MM BIO-D. Compensatory Mitigation for GGS. Caltrans will continue to work with the USFWS and CDFW to identify on and offsite opportunities to offset adverse effects to the giant garter snake by conserving habitat or otherwise enabling recovery actions within the Delta Region. If a USFWS and CDFW-approved option is not identified by the time of the initial ground-breaking, Caltrans will provide a funding assurance letter to demonstrate that they have allocated sufficient funds for an eventual compensation option.	BO	n/a	Caltrans	Compensatory Mitigation for GGS	Enter date	Enter Name	Enter date	Enter remarks	No

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Category	Task and Brief Description	Source	Includ ed in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Complet ed on	Remarks	Mitigation for significant impacts under CEQA?
Biology	AMM BIO-20. Fill, gravel, construction debris, and other imported construction-related material will be removed when construction is complete. Areas of the footpring, not occupied by hardscape will be graded as needed, relative to the surrounding topography and will be vegetated with appropriate native plants.	USFWS BO	SSP	Contractor	Post Construction Restoration	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	Post Construction Restoration. Following construction, damage done to areas within 100 feet of the elderberry plants will be restored with adequate erosion control and re-vegetated with appropriate native plants	USFWS BO	SSP	Contractor	Post Construction Restoration	Enter date	Enter Name	Enter date	Enter remarks	Yes
Biology	MM BIO-B. Compensatory Mitigation for Jurisdiction Features. Caltrans will mitigate for jurisdictional wetlands and other waters of the U.S. to achieve no net loss of the functions and values of jurisdictional features within the study area. Caltrans will mitigate on site at a 1 to 1 ratio by restoring wetlands and other waters as a result of removing the temporary construction trestles and demolishing the existing bridge. For permanent impacts, and through coordination with the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB), Caltrans will mitigate at an approved off-site location at a minimum of a 1 to 1 ratio, with the final mitigation ration determined through permitting with the USACE and RWQCB . Potential mitigation opportunities include Burke Ranch Conservation Bank and Elise Gridley Mitigation Bank.	BO	n/a	Caltrans	Compensatory Mitigation for Jurisdictional Features	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	Restoration Plan. Temporarily affected areas where vegetation is to be removed, will be re-vegetated (e.g., hydro-seeding and installation of woody plants) with locally appropriate native plant species. Narrow leaved milkweed (asclepias fasciularius) and/or showy milkweek (A. speciosa) will be added to the seed mix to enhance habitat for the monarch butterfly. Caltrans will submit a restoration plan to the Service for approval prior to the initial ground breaking.	USFWS BO	SSP	Contractor	Replant temporarily affected areas	Enter date	Enter Name	Enter date	Enter remarks	Yes

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

Category	Task and Brief Description	Source	Include d in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Comple d on	Remarks	Mitigati on for signific ant impacts under CEQA?
Biology	AMM BIO-16. To enhance riparian habitat for the valley elderberry longhorn beetle, Caltrans will include elderberry and other locally native riparian shrub and tree species in their restoration plan. Caltrans will delineate all environmentally bio on the final construction plans. Caltrans will install high visibility fencing along the boundaries of the project footprint within the riparian zone (i.e., on the levees) of Miner Slough. Fencing will also be installed along the perimeter of the new alignment north of the new bridge and near other environmentally sensitive locations. The features used to identify work boundaries will be removed at the end of construction within the given area. Along the north levee, adjacent to the identified elderberry shrub, signs will be attached every 50 feet along the high visibility fencing 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." The signs will be clearly readable from a distance of 20 feet and will be maintained for the duration of construction. Fencing will be installed as a first order of work. The USFWS-approved biological monitor will be onsite to direct the installation of this fencing. Post construction restoration fencing will be installed on an as needed basis such as when bird nests are established. No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetles or its host plant will be used within 100 feet of any elderberry plant.	USFWS BO	SSP	Contractor/Caltrans	Post Construction Restoration	Enter date	Enter Name	Enter date	Enter remarks	Select a response
Water Quality	7 day Notice. The Applicant shall notify the Central Valley Water Board in writing seven (7) days in advance of the start of any work within waters of the United States.	401 Permit	n/a	Cyrus	Work within waters of the US notify 7 days prior to start of construction	Enter date	Enter Name	Enter date	Enter remarks	Select a response

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

Category	Task and Brief Description	Source	Include d in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Comple d on	Remarks	Mitigati on for signific ant impacts under CEQA?
Water Quality	Access to and Execution of Certification. The Applicant shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) at the Project site during construction for review by site personnel and agencies. All personnel (employees, contractors, and subcontractors) performing work on the proposed Project shall be adequately informed and trained regarding the conditions of this Certification	401 Permit	n/a	Dragomir	Compliance					
Water Quality	Material Containment. Except for activities permitted by the United States Army Corps of Engineers under Section 404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.	401 Permit	n/a	Lammert	Compliance					

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

Category	Task and Brief Description	Source	Include d in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Comple d on	Remarks	Mitigati on for signific ant impacts under CEQA?
Water Quality	<p>Surface Water Sampling. The Applicant shall perform surface water sampling: a) when performing any in-water work; b) in the event that Project activities result in any materials reaching surface waters; or c) when any activities result in the creation of a visible plume in surface waters. Monitoring and reporting requirements identified in the Central Valley Water Board's authority to investigate the quality of any waters of the state and require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13386. Water Code section 13267 authorizes the regional boards to require any person who has discharged or discharging, or who proposes to discharge waste to provide technical or monitoring program reports required by the regional board. Water Code section 13383 authorizes the regional boards to establish monitoring, inspection, entry, reporting, and other recordkeeping requirements, as authorized by Water Code section 13160, for any person who discharges or proposes to discharge, to navigable waters. The burden of preparing these reports, including costs, are reasonable in relation to the need for and benefits from obtaining the reports. The reports confirm that the measures required under this order are sufficient to protect beneficial uses and water quality objectives. The sampling requirements in Table 1 shall be conducted upstream out of the influence of the Project, and 300 feet. (d)Sampling is not required in wetlands, where the entire wetland is being permanently filled; provided there is no outflow connecting the wetland to surface waters downstream of the work area. The sampling frequency may be modified for certain projects with written approval from Central Valley Water Board staff. Surface water sampling shall occur at mid-depth. A surface water monitoring report shall be submitted within two weeks of initiation of in-water construction, and every two weeks thereafter. In reporting the sampling data, the Applicant shall arrange the data in tabular form so that the sampling locations, date, constituents, and concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the Project complies with Certification</p>	401 Permit	n/a	Dragomir	Compliance					

Environmental Commitment Record for Miner Slough Bridge Rehabilitation Project

requirements. The report shall include surface water sampling results, visual observations, and identification of the turbidity increase in the receiving water applicable to the natural turbidity conditions specified in the										
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ENVIRONMENTAL COMPLIANCE REVIEW

Category	Task and Brief Description	Source	Includ ed in PS&E packag e	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Complet ed on	Remarks	Mitigation for significant impacts under CEQA?
Select a category	Enter task and brief description	Enter source	Select a respon se	Enter name	Enter action	Enter date	Enter Name	Enter date	Enter remarks	Select a respon se
Select a category	Enter task and brief description	Enter source	Select a respon se	Enter name	Enter action	Enter date	Enter Name	Enter date	Enter remarks	Select a respon se
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Select a category	Enter task and brief description	Enter source	Select a respon se	Enter name	Enter action	Enter date	Enter Name	Enter date	Enter remarks	Select a respon se

Exhibit B

