

# Staff Report 35

## APPLICANT:

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Tuolumne River Conservancy, Inc., a California Corporation

## PROPOSED ACTION:

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Issuance of General Lease – Other

## AREA, LAND TYPE, AND LOCATION:

Sovereign land in the Tuolumne River channel and floodplain at Bobcat Flat, adjacent to Assessor's Parcel Numbers 008-021-011, -025, -026, near Waterford, Stanislaus County.

## AUTHORIZED USE:

Restoration and rehabilitation of the bed of the Tuolumne River channel and floodplain to improve wildlife and aquatic habitats, as shown in Exhibits A and B.

## TERM:

5 years, beginning February 25, 2022.

## CONSIDERATION:

The public use and 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; dredged materials may not be sold.

## SPECIFIC LEASE PROVISIONS:

- In performing the rehabilitation and restoration operations, the Lessee will abide by mitigation measures and Best Management Practices to control turbidity and protect aquatic resources and habitats from excessive siltation in the general vicinity of the Project.
- Lessee acknowledges that grading materials from the Lease Premises are the property of the State of California and shall not be sold, and that Lessee is not

authorized to grade for purposes of commercial resale, environmental mitigation credits, or other private benefit without Lessor's prior written consent.

- Within 60 days of completing the construction of authorized improvements and restoration project, Lessee will provide Lessor with photographs and a set of "as-built" plans that will show where the improvements have been placed. Lessor shall then replace Exhibit A, Land Description, and Exhibit B, Site and Location Map, to the Lease as necessary to accurately reflect the final location of the authorized improvements. Once approved by the Lessor's Executive Officer or designee, the revised Exhibits shall replace the Exhibits incorporated in the Lease at the time of Lease execution. The replaced Exhibits shall be incorporated in the Lease as though fully set forth therein.

## STAFF ANALYSIS AND RECOMMENDATION:

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### AUTHORITY:

Public Resources Code sections 6005, 6216, 6301, 6303, 6501.1, and 6503; California Code of Regulations, title 2, sections 2000 and 2003.

### BACKGROUND:

The Tuolumne River Conservancy, Inc., is a nonprofit organization whose mission includes restoration and preservation of approximately 52 miles of the Tuolumne River between La Grange and the San Joaquin River in Stanislaus County. The organization works with government agencies to promote policies and activities which enhance the Tuolumne River and its natural habitat. The organization is currently funded by the California Department of Fish and Wildlife, the United States Fish and Wildlife Service, and other grant funding sources.

On June 20, 2005, the Commission authorized a 3-year General Lease – Habitat Restoration to the Friends of the Tuolumne, Inc., to restore and enhance the quantity of salmon and steelhead spawning and rearing habitats in the Tuolumne River and the floodplain at Bobcat Flat, near La Grange ([Item C10, June 20, 2005](#)). That lease expired on June 30, 2008. On June 23, 2011, the Commission authorized a 2-year General Lease – Habitat Restoration to the Friends of the Tuolumne, Inc., for continued restoration and rehabilitation measures to improve wildlife and aquatic habitats ([Item C47, June 23, 2011](#)). That lease expired on June 22, 2013. Subsequently, the organization's name was changed to the Tuolumne River Conservancy, Inc., as registered with the California Secretary of State's office. On August 9, 2016, the Commission authorized a 4-year General Lease – Other, to Tuolumne River Conservancy, Inc., for supplemental restoration and rehabilitation measures to improve wildlife and aquatic habitats in the same location as previous

leases ([Item C19, August 9, 2016](#)). The Applicant is now applying for a General Lease – Other, for restoration and rehabilitation measures associated with Phase III of the Bobcat Flat Project, to improve wildlife and aquatic habitats in the bed of the Tuolumne River channel and floodplain.

Based on the historical use of the Tuolumne River and the project related documents, the river and floodplain were negatively impacted by gold dredging that ended in the 1950s. In the 1960s and early 1970s, the dredger tailings were removed and hauled upstream to build the New Don Pedro Dam. Even with this work, the remaining floodplain remained above the functional elevation for a river floodplain. Phase III of the Bobcat Flat Project will include habitat restoration and creation of side channels for native fish spawning and development. The floodplain will be lowered to more natural levels consistent with spring flood releases. Spawning riffles will be created in the river to enhance fish development habitats and remediate the effects of historic gold dredging. Native trees will be planted on the lowered floodplain to improve vegetation. No non-native construction materials will be used. Funding for the planning and permitting has been provided by the U.S. Fish and Wildlife Service and the Del Puerto Water District.

#### PROJECT DESCRIPTION:

The Bobcat Flat Project contains four primary objectives: 1) Scale surfaces adjacent to the mainstem channel and reconnect the river to its floodplains so adjacent surfaces can function under the contemporary regulated flow regime; 2) Create low-gradient riffles with a slope of less than 0.2 percent by redistributing the elevation drop in the short, steep riffles to restructure the lake–cascade channel morphology to be a more natural pool–riffle morphology; 3) Reduce predator habitat; and 4) Increase off-channel rearing habitat for fry and juvenile salmonids via construction of low flow side channels and annually inundated floodplain benches. These four primary actions will have a lasting impact on aquatic, terrestrial, and riparian species by improving existing degraded habitat and providing additional new habitat. The public benefit will be a healthy length of river and its associated floodplain. Several fish species will benefit from this Project, such as the listed fish *Oncorhynchus mykiss*, better known as Steelhead, and Fall Run Chinook Salmon.

The proposed project is scheduled to begin in the summer 2022 and conclude in the fall 2023, barring any unforeseen delays. Construction and restoration work activities in the river are limited to periods between July 15 and October 15 of each year, as noted in the Streambed Alteration Application submitted to California Department of Fish and Wildlife. According to project-related documents, it is anticipated that initial work may take two years and place an estimated 78,400

cubic yards of coarse sediment into the mainstem channel. Phase III of the project encompasses approximately 190 acres and 0.9 miles of the Tuolumne River. The downstream 0.6 miles of mainstem channel begins at what remains of Riffle 18, consisting of a straight four- to eight-foot-deep section of channel with minimal topographic complexity. Cobble and coarse gravel will be introduced into several patches within the river channel, which will facilitate restoration of the natural pool-riffle morphology. At the downstream end of the project area, work will be done to reconnect and improve habitat conditions in a remnant dredger swale. This will require the excavation to reconnect and partially fill the slough, to create a shallow side channel. The remaining material will be used to fill in lower areas, which will prevent potential stranding and adverse conditions for salmonids during moderate flow events, which will restore and enhance spawning and rearing habitat for Steelhead and Chinook Salmon and benefit other biota that depend on riverine, riparian, and floodplain habitats. The restored floodplain surfaces will be revegetated through natural recruitment and riparian plantings of trees and shrubs. No excavated materials will be transported off the project site or sold. It is anticipated that localized excavation and grading will be performed by use of small excavators and backhoes. Tractors, loaders, haul trucks, cobble sorting and cleaning equipment will be used to support in-water work. The project does not include structures or other physical improvements.

The results of the Project will be a generally level area with a very slight slope from upstream to downstream and positive drainage into the side channel or backwater. Native riparian trees and shrubs will be planted in select locations, particularly in locations that have been disturbed by construction activities. The Action Area is below the ordinary high-water mark, so no fiber rolls or hydroseeding will occur.

The Project is located within a 100-year floodplain and will support the preservation and enhancement of the natural and beneficial values of floodplains. Recovering floodplain inundation will provide a rearing habitat for juvenile fish that may contribute to improved growing conditions and recovery processes to support native plant recruitment and establishment. The Project activities will likely improve groundwater recharge as floodplain function is restored. The Project will increase the absorption rates for floodwaters in the local area but would not dramatically change the overall runoff patterns. The Project will increase the capacity of the river to convey flood flows in a way that is beneficial to rearing fish and poses no increase to the pre-project level of risk to structures, agricultural fields, or mining resources.

A scientific monitoring plan has been developed for the proposed project, with the primary goal of defining the current state of the system before restoration and

determining whether the implemented project improves fish species habitat and overall ecosystem function. The scientific monitoring program consists of four monitoring approaches: 1) pre-project site description, 2) implementation, 3) effectiveness, and 4) validation. The monitoring of the planting success will occur for three years through the fall of 2024. If there is less than 60% survival, additional native riparian trees will be planted.

**PUBLIC TRUST AND STATE'S BEST INTERESTS:**

The Project will enhance the fishing experience by restoring the habitat in the river. This wildlife and aquatic habitat restoration project is a water-dependent use that is consistent with the common law Public Trust Doctrine. As such, Commission staff believes this particular use of public land, by the Tuolumne River Conservancy, Inc., for a public benefit is consistent with the common law Public Trust Doctrine. Public access near the project location is constrained due to private ownership of the uplands. However, waterborne activities such as rafting, kayaking, and fishing are possible through nearby access points. The public can fish in the Tuolumne River using non-motorized vehicles such as kayaks and canoes. A boat launch is located approximately six miles upstream from the project area. The project area will include signage and remote security personnel. Signage will be placed upstream to alert boaters about project related equipment in the vicinity. Additionally, security personnel will be stationed upstream to inform boaters of any potential safety concerns. Security personnel will use a remote radio to inform the equipment operators of any boating traffic in the area, heading downstream towards a project work area. As needed, project workers will pause operations to accommodate safe passage of boaters and recreators. The project work will occur on weekdays when public recreation is at a minimum level. Further, signage will be placed on the adjacent upland at the entrance driveway leading to the project area, recognizing the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, the San Francisco Public Utilities District, and other contributors.

The proposed project will enhance habitat restoration, which will increase fish populations in the Tuolumne River and the larger ecosystem. Overall, the proposed action is considered beneficial because it will enhance fisheries, which is a recognized Public Trust use. Furthermore, the action will not impede or impair any other Public Trust uses in the area.

The lease includes certain provisions protecting the public's use of the proposed lease area by requiring the Applicant to obtain necessary permits. The lease also has a limited term of five years that allows the Commission flexibility to determine if the Public Trust needs of the area have changed over time. Furthermore, post-project monitoring will take place after project completion to evaluate outcomes

of the project, implementation of the project, and project influences on habitat conditions.

#### CLIMATE CHANGE:

The project 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, fire, drought, extreme heat, 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; flooding and storm flow, as well as runoff, will likely increase scour, decreasing bank stability at a faster rate.

The Mitigated Negative Declaration for the project analyzed climate change related impacts, such as flooding, sedimentation and scour, and land uses within and adjacent to Federal Emergency Management Agency-designated flood zones. Channel and floodplain restoration projects provide future resiliency to extreme flood and weather events by buffering the floodwater energy and dissipating it over a larger area. Further, the objective of the project is to support a natural geomorphic riverine process. The project will allow flooding to newly restored river side channel and floodplain lands that will support riverine and ecosystem processes. Collectively, the improvements to hydrologic function and expansion and connectivity of floodplain area and processes will serve to offset the impacts of future flooding and climate change on the Tuolumne River.

#### CONCLUSION:

For all the reasons above, staff believes the issuance of this lease will not substantially interfere with Public Trust needs at this location, at this time, and for the foreseeable term of the proposed lease; is consistent with the Public Trust Doctrine; and is in the best interests of the State.

#### OTHER PERTINENT INFORMATION:

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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 not be authorized to perform restoration and rehabilitation measures as noted in Phase III of the Bobcat Flat Project. Upon expiration or prior termination of the lease, the lessee also has no right to a new lease or a renewal of any previous lease.

2. This action is consistent with the “Leading Climate Change Activism,” “Meeting Evolving Public Trust Needs,” and “Committing to Collaborative Leadership” Strategic Focus Areas of the Commission’s 2021-2025 Strategic Plan.
3. A Mitigated Negative Declaration, State Clearinghouse No. 2020110089, and a Mitigation Monitoring and Reporting Program (MMRP) were prepared by the California Central Valley Regional Water Quality Control Board (Regional Water Board) and adopted on December 14, 2020, for this project. Staff reviewed these documents and prepared an independent Mitigation Monitoring Plan (attached, Exhibit C) incorporating the Regional Water Board’s document and recommends adoption by the Commission.
4. 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.

#### APPROVALS OBTAINED:

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California Department of Fish and Wildlife  
Central Valley Flood Protection Board  
California Central Valley Regional Water Quality Control Board  
National Marine Fisheries Service  
State Water Resources Control Board  
U.S Fish and Wildlife Service

#### APPROVALS REQUIRED:

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U.S. Army Corps of Engineers

## EXHIBITS:

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

## RECOMMENDED ACTION:

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It is recommended that the Commission:

### CEQA FINDING:

Find that a Mitigated Negative Declaration, State Clearinghouse No. 2020110089, and a Mitigation Monitoring and Reporting Program were prepared by the California Central Valley Regional Water Quality Control Board and adopted on December 14, 2020, 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 the 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.

### 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.

### PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that the proposed 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; is consistent with the Public Trust Doctrine; and is in the best interests of the State.

### AUTHORIZATION:

1. Authorize the Executive Office or designee to replace Exhibits in the lease and adjust rent upon submission, review, and approval of as-built plans detailing the final location of the new improvements following construction.



2. Authorize issuance of a General Lease – Other to the Applicant beginning February 25, 2022, for a term of 5 years, to authorize the restoration and rehabilitation of the bed of the Tuolumne River channel and floodplain, to improve wildlife and aquatic habitats, as described in Exhibit A and shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof; consideration: public use and 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; such permitted activity is contingent upon Applicant's compliance with applicable permits, recommendations, or limitations issued by federal, state, and local governments; grading material shall be used for the benefit of the Project and may not be sold.

**EXHIBIT A**

**LEASE 8609**

**LAND DESCRIPTION**

A parcel of submerged land lying in the bed of the Tuolumne River, adjacent to Fractional Sections 32 and 33, Township 3 South, Range 13 East, M.D.M., as shown on Official Government Township Plat approved December 30, 1854, County of Stanislaus, State of California, more particularly described as follows:

A parcel of submerged lands bound on the North by the Low Water of the right bank of the Tuolumne River, bound on the South by the Low Water of the left bank of the Tuolumne River, bound on the West by a line running South from the westerly corner of that parcel described in Exhibit A of Grant Deed recorded in Doc-2001-0066758-00, on June 20, 2001 and bound on the East by a line running South from the southeasterly corner of that parcel described in said Exhibit A.

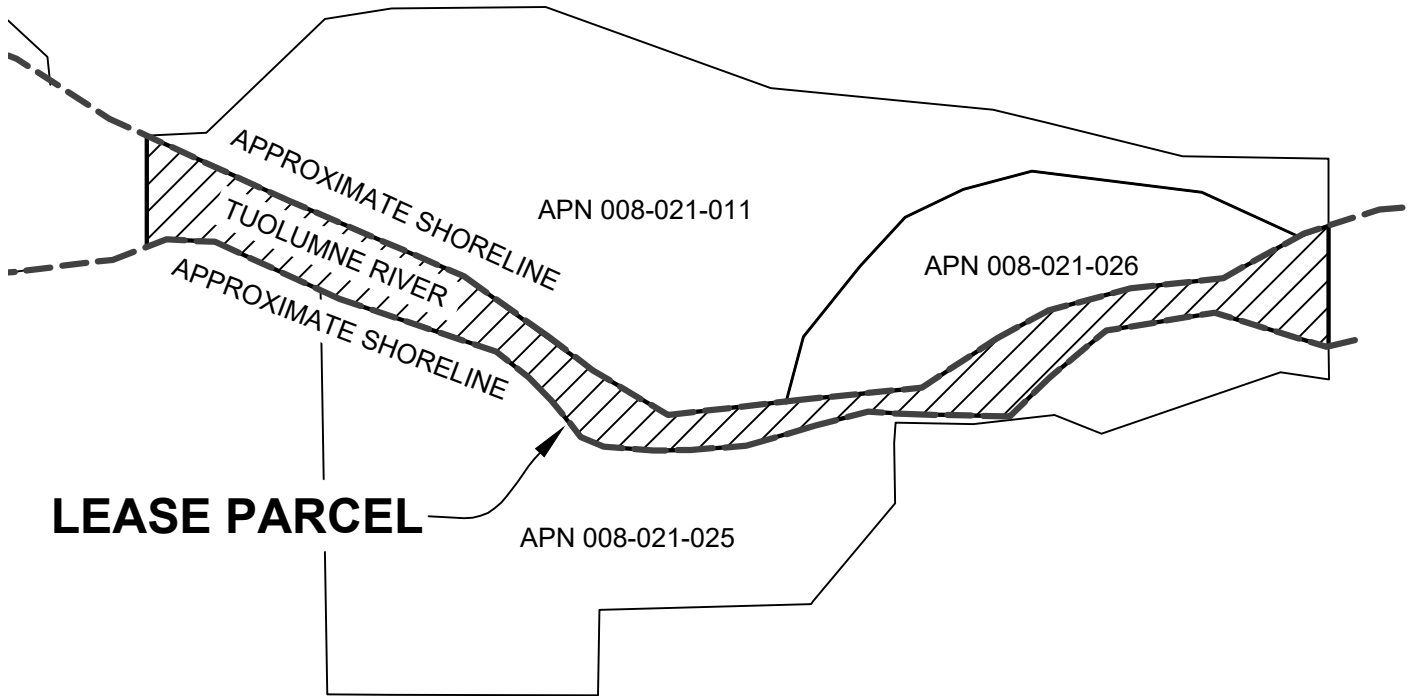
**END OF DESCRIPTION**

Prepared 1/13/21 by the California State Lands Commission Boundary Unit.



NO SCALE

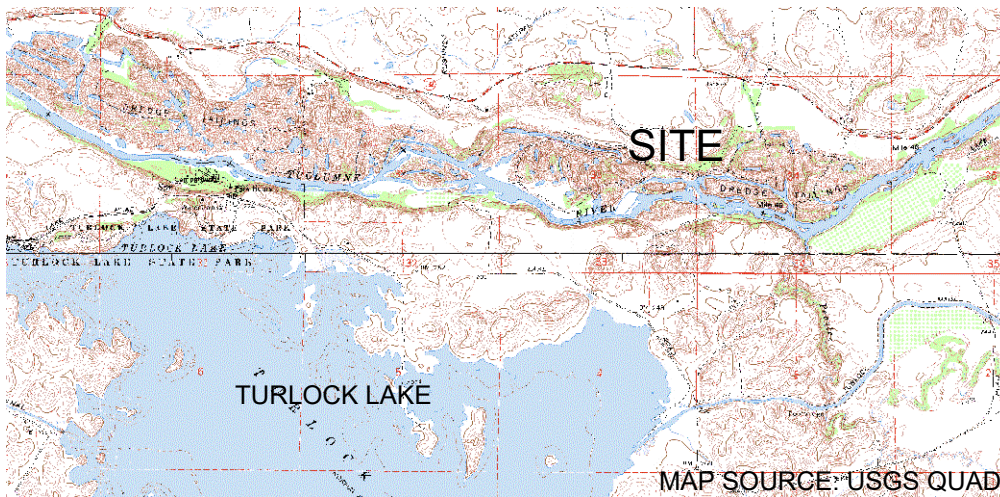
# SITE



## TUOLUMNE RIVER AT BOBCAT FLAT, NEAR WATERFORD

NO SCALE

# LOCATION



# EXHIBIT B

LEASE 8609  
 TUOLUMNE RIVER  
 CONSERVACY  
 APN 008-021-011, 025 & 026  
 GENERAL LEASE -  
 OTHER  
 STANISLAUS 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.

DJF 1/12/2021

**EXHIBIT C**  
**CALIFORNIA STATE LANDS COMMISSION**  
**MITIGATION MONITORING PROGRAM**

**BOBCAT FLAT EAST (PHASE III) SALMON HABITAT RESTORATION TUOLUMNE  
RIVER MILE 43.5± TO 44.5± STANISLAUS COUNTY, CA**  
(A2663, State Clearinghouse No. 2020110089)

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The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the Bobcat Flat East (Phase III) Salmon Habitat Restoration Tuolumne River Mile 43.5± to 44.5± Stanislaus County, CA Project (Project). The CEQA lead agency for the Project is the California Central Valley Regional Water Quality Control Board.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on State lands. The purpose of a 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<sup>1</sup> 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. 2020110089 and adopted a Mitigation Monitoring and Reporting Plan (MMRP) for the whole of the Project (see Exhibit C, Attachment C-1). The MND reduced potential impacts to a less-than-significant level by requiring both mitigation measures (MMs) and avoidance and minimization measures (AMMs). The lead agency remains responsible for ensuring that implementation of all the measures identified in the MMRP occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below. The full text of each measure, as set forth in the MMRP prepared by the CEQA lead agency and provided in Attachment C-1, is incorporated by reference in this Exhibit C. Any mitigation measures adopted by the

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

Commission that differ substantially from those adopted by the lead agency are shown as follows:

- Additions to the text of the mitigation measure are underlined; and
- Deletions of the text of the mitigation measure are shown as ~~strikeout~~ or as otherwise noted.

**Table C-1. Project Impacts and Applicable Measures**

Potential Impact	Mitigation Measure (MM) / Avoidance and Minimization Measure (AMM) <sup>2</sup>	Difference Between CSLC MMP and Lead Agency MMP
<b>Impacts to fish species</b>	<b>AMM BIO-1.</b> Environmental Awareness Training. <b>AMM BIO-3.</b> Work Window for Fisheries. <b>AMM BIO-4.</b> Install Barrier/Silt Fencing to Protect Water Quality. <b>AMM BIO-5.</b> Erosion Control Plan/Best Management Practices (BMPs) to Protect Water Quality (Including NOI / NPDES / SWPPP)	None
<b>Impacts to western pond turtle</b>	<b>MM BIO-1</b> <b>MM BIO-6.</b> Biological Monitor – Turtles. <b>MM BIO-7.</b> Preconstruction Survey/Relocation for Western Pond Turtles.	None
<b>Impacts to wetlands and other waters</b>	<b>AMMs BIO-1, BIO-4, and BIO-5</b> <b>AMM BIO-12.</b> Wetlands and Other Waters. <b>AMM GEO-1.</b> Sediment Control. <b>AMM HAZ-2.</b> Spill Prevention Plan. <b>AMM HAZ-3.</b> Mercury.	None
<b>Impacts to unanticipated cultural resources</b>	<b>AMM BIO-1</b> <b>MM CULT-2.</b> Unanticipated Cultural Resource Discoveries.	For changes to CULT-2, see below.
<b>Impacts to human remains</b>	<b>MM CULT-3.</b> Human Remains. <b>MM CULT-4.</b> Project Scope Changes.	For changes to CULT-3, see below.
<b>Impacts to energy resources</b>	<b>MM ENERGY-1.</b> Construction equipment.	None

<sup>2</sup> See Attachment C-1 for the full text of each measure (MM and AMM) taken from the MMRP prepared by the CEQA lead agency.

Potential Impact	Mitigation Measure (MM) / Avoidance and Minimization Measure (AMM) <sup>2</sup>	Difference Between CSLC MMP and Lead Agency MMP
Impacts from soil erosion or loss of topsoil	MM GEO-1	None
Impacts to unanticipated paleontological resources	MM GEO-2	See below.
Impacts from greenhouse gases	MM ENERGY-1 MM GHG-1. Authority to Construct/Permit to Operate MM GHG-3. Construction Material.	None
Impacts from spilled hazardous materials	MMs BIO-1 and HAZ-2	None
Impacts from mercury	MM HAZ-3	None
Impacts to water quality	MMs BIO-1, BIO-5, GEO-1, HAZ-2, and HAZ-3	None
Impacts from a changed drainage pattern	MM BIO-1, AMM BIO-4, MM BIO-5, and MM GEO-1	None
Noise impacts to humans	MM BIO-9. Hours of Construction. MM GHG-1	None
Impacts to unanticipated tribal cultural resources	MMs BIO-1, CULT-2, CULT-3, and CULT-4	For changes to CULT-2 and CULT-3, see below.

**Mitigation Measure CULT-2: Unanticipated Cultural Resource Discoveries**

If a cultural resource is discovered during construction activities, the construction contractor shall comply with the following provisions:

- A. The person discovering the cultural resource shall notify the project’s designated qualified cultural resource professional by telephone within 4 hours of the discovery or the next working day if the department is closed. In addition, the Conservancy shall consult with CSLC Staff Attorney should any cultural resources on State lands be discovered during construction of the proposed Project.
- B. When the cultural resource is located outside the area of disturbance, the project’s designated qualified cultural resource professional shall be allowed to photodocument and record the resource and construction activities may continue during this process. The area of disturbance is defined to include grading and

vegetation removal areas and/or access roads or processing areas plus 100 feet.

- C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by site's designated qualified cultural resource professional may continue. The project's designated qualified cultural resource professional shall be allowed to conduct an evaluative survey to evaluate the significance of the cultural resource.
- D. When the cultural resource is determined to be not significant, the project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project's designated qualified professional.
- E. When a resource is determined to be significant, the resource shall be avoided with said resource having boundaries established around its perimeter by the project's designated qualified cultural resource professional or a cultural resource management plan shall be prepared by the project's designated qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. The project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project's designated qualified cultural resource professional. All further activity authorized by this permit shall comply with the cultural resources management plan.
- F. The final disposition of archaeological, historical, and paleontological resources recovered on State land under the jurisdiction of the California State Lands Commission must be approved by the Commission.

For the purposes of implementing this measure, a "qualified cultural resource professional" is an individual (e.g., historian or archaeologist) meeting the Secretary of the Interior's Qualification Standards.

A "cultural resource" is any building, structure, object, site, district, or other item of cultural, social, religious, economic, political, scientific, agricultural, educational, military, engineering or architectural significance to the citizens of Stanislaus County, the State of California, or the nation which is 50 years of age or older or has been listed on or is eligible for listing on the National Register of Historic Places, the California Register of Cultural Resources, or any local register. Examples of prehistoric resources may include: stone tools and manufacturing debris; milling equipment such as bedrock mortars, portable mortars, and pestles; darkened or stained soils (midden) that may contain dietary remains such as shell and bone; as well as human remains. Historic resources may include: burial plots; structural foundations; mining spoils piles and prospecting pits; cabin pads; and trash scatters consisting of cans with soldered seams or tops, bottles, cut (square) nails, and ceramics.



**Mitigation Measure CULT-3: Human Remains**

If human remains, burial, cremation or other mortuary feature are uncovered during construction activities; upon discovery, secure the location, do not touch or remove remains and associated artifacts; do not remove associated spoils or go through them; document the location and keep notes of activity and correspondence. Should human remains be discovered on State land, the Conservancy shall notify the California State Lands Commission within 24 hours of the discovery. All work within 100 feet of the discovery shall stop until the County Coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to obtain the Most Likely Descendent (MLD) and follow state law (PRC 5097.9 et seq. and Health and Safety Code 7050.5(c)-7054.1 and 8100 et seq.). No further work or disturbance shall occur within 100 feet until all of the preceding actions, as applicable to the discovery, are implemented and completed. Preserve associated spoils without further disturbance, do not touch or remove remains or associated artifacts, document the location and maintain notes of activity and correspondence. Preservation in situ is the preferred treatment of human remains and associated burial artifacts. [Public Resources Code Sections 5097.94, 5097.98 and Health and Safety Code Section 7050.5(c) and Section 15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177]

**Mitigation Measure GEO-2: Paleontological Resources**

If paleontological resources are encountered during Project construction and no paleontological monitor is present, all ground disturbing activities within 50 feet of the find shall be redirected to other areas until a qualified paleontologist (as determined by the Project's qualified cultural resource professional) can be contacted to evaluate the find and make recommendations. If determined significant pursuant to CEQA and Project activities cannot avoid the paleontological resources, a paleontological evaluation and monitoring plan shall be implemented.

Adverse impacts to significant paleontological resources shall be mitigated, which may include monitoring, data recovery and analysis, a final report, and the curation of all fossil material to a paleontological repository, museum, or academic institution, as appropriate. Upon completion of Project ground-disturbing activities, a report documenting methods, findings, and recommendations shall be prepared and submitted to the paleontological repository.

The final disposition of archaeological, historical, and paleontological resources recovered on State land under the jurisdiction of the California State Lands Commission must be approved by the Commission.

## **ATTACHMENT C-1**

**Mitigation Monitoring and Reporting Plan Adopted by the  
California Central Valley Regional Water Quality Control Board**

**MITIGATION MONITORING AND REPORTING PLAN**  
Bobcat Flat East (Phase III) - Salmon Habitat Restoration  
November 18, 2019

AIR QUALITY

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
AQ-1	<p><b><u>Mitigation Measure AQ-1: Dust Control Plan</u></b></p> <p>Prior to commencing construction, the Project proponent/Contractor shall prepare a Dust Control Plan in compliance with the San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VIII (Fugitive Dust Prohibitions). The Project Proponent/Contractor shall be responsible for implementing the approved Dust Control Plan to include, at a minimum:</p> <p>A. A water truck or other watering device shall be on the construction site on all working days when natural precipitation does not provide adequate moisture for complete dust control. Said watering device shall be used to spray water on the site at the end of each day and at all other intervals, as need dictates, to control dust. All activities shall be effectively controlled of fugitive dust emissions using application of water including for wetting during gravel processing, extraction activities, on haul roads. For dry screening activities, a mist screen shall be used as prescribed by the SJVAPCD.</p> <p>B. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.</p> <p>C. All land clearing, grading, earth moving, or excavation activities at the Project site shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.</p> <p>D. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance and visible dust plumes.</p> <p>E. Vehicular traffic speeds on unpaved surfaces shall not exceed 10 miles per hour.</p>	N/A	Complete plan prior to commencing site disturbance	Throughout Project construction	Project Proponent, Construction contractor	N/A	N/A
AQ-2	<p><b><u>SEE Mitigation Measure ENERGY-1: Construction Equipment</u></b></p>	N/A	Throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A
AQ-3	<p><b><u>SEE Mitigation Measure GHG-1: Authority to Construct/Permit to Operate</u></b></p>	N/A	Secure permit prior to commencing site disturbance and implement throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A

BIOLOGICAL RESOURCES

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
BIO-1	<p><b>Minimization Measure BIO-1: Environmental Awareness Training</b></p> <p>Construction bid packages and contractual requirements shall include a requirement for tail-gate training by the project’s designated qualified biologist and cultural resource professionals. All contractors involved in site development and environmental specialists will attend a mandatory Environmental Awareness Training prior to any site disturbances. The program will address proper implementation of minimization and avoidance measures contained herein including, but not limited to:</p> <ul style="list-style-type: none"> <li>• VELB avoidance</li> <li>• Turtle conservation</li> <li>• Nesting birds</li> <li>• Avoiding inadvertent animal trapping (including SJKF)</li> <li>• Site maintenance</li> <li>• Controlling invasive species</li> <li>• Construction windows</li> <li>• Handling leaks and spills</li> <li>• Fencing environmentally sensitive areas</li> <li>• Native Oak Tree Protection measures (avoiding driplines, no equipment or materials storage in driplines, avoid cutting oak roots, avoid equipment damage to limbs, trunks, and roots of oak trees; do not attach signs, ropes, cables or other items to trees)</li> <li>• Cultural resources training to inform construction personnel of the types of cultural resources they may encounter, the laws protecting those resources, and the standard protocols to be implemented.</li> <li>• Hazardous materials response.</li> </ul>	N/A	Initial training - prior to commencing construction	Throughout project construction	<p>Construction contractor.</p> <p>The Project Biologist (or Project Archaeologist) shall have the authority to stop work or remove any construction worker on site that has not completed training.</p>	N/A	N/A
BIO-2	<p><b>Mitigation Measure BIO-2: Valley Elderberry Longhorn Beetle Protection</b></p> <p>The following applies to elderberry shrubs located within 100 feet of active construction areas.</p> <ol style="list-style-type: none"> <li>1. All ground disturbance within 100 feet of the driplines of elderberry shrubs shall occur outside the flight period for VELB (March 15<sup>th</sup> to June 15<sup>th</sup>).             <ol style="list-style-type: none"> <li>a. Prior to ground disturbance, erect brightly colored temporary fencing (e.g., safety fencing): Along the boundary of the buffer</li> </ol> </li> </ol>	N/A	Temporary safety fencing (i.e., environmentally sensitive area fencing) shall be installed prior to ground disturbance and be verified by the Project Biologist.	The required fencing and mitigation measure provisions will be implemented and maintained throughout	Construction contractor with input from the Project Biologist, if necessary	N/A	N/A

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
	<p>area designated for elderberry shrub protection (20 feet from the dripline of the shrub)</p> <p>b. Temporary fencing shall be maintained throughout project construction and restoration activities.</p> <p>2. Throughout construction activities:</p> <p>a. No dumping of trash or other material may occur within 20 feet of elderberry shrubs. Any trash or other foreign material found deposited within this buffer area shall be removed within 10 working days of discovery.</p> <p>b. No insecticides, no herbicides, no fertilizers or other chemicals shall be used that might harm the beetle or its host plant shall be used within 100 feet of any elderberry bush.</p> <p><i>Mitigation Measure BIO-2 shall not apply if VELB is delisted pursuant to the federal endangered species act prior to (or during) project construction.</i></p>			Project construction			
<b>BIO-3</b>	<p><b>Avoidance and Minimization Measure BIO-3: Work Window for Fisheries</b></p> <p>Project activities involving in-stream work will occur outside the critical spawning period for steelhead and salmon (e.g., June through September).</p>	N/A	Throughout project construction - Project work shall occur OUTSIDE critical spawning period for steelhead and salmon which is June through September	N/A	Construction contractor	N/A	N/A
<b>BIO-4</b>	<p><b>Avoidance and Minimization Measure BIO-4: Install Barrier / Silt Fencing to Protect Water Quality</b></p> <p>Prior to implementing staging, construction, or ground disturbing activities:</p> <p>Install temporary silt fencing, fiber rolls, or equivalent erosion and sediment control devices as necessary to protect water quality. Silt fencing or other materials, as required, will be installed consistent with the applicable water quality requirements specified in the Project's Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). Fencing or other erosion control materials or devices shall be shown on the final</p>	N/A	Prior to ground disturbance	Maintained throughout project construction	Construction contractor	N/A	N/A

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
	construction documents. These areas will be monitored by the project manager throughout construction.						
<b>BIO-5</b>	<p><b>Avoidance and Minimization Measure BIO-5: Erosion Control Plan / Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)</b></p> <ul style="list-style-type: none"> <li>The Contractor shall prepare an Erosion Control Plan for implementation for any construction to take place between October 15 and May 15 of any year. In the absence of such an approved plan, all construction shall cease on or before October 15, except that necessary to implement erosion control measures.</li> <li>Submit to the State Water Resources Control Board Storm Water Permitting Unit, a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit - California's National Pollution Discharge Elimination System (NPDES) general permit for construction related storm water discharges for the disturbance of one acre or more. Disturbances of less than one acre may also require an NOI for coverage under the NPDES General Permit for construction-related storm water discharge and the State Water Resources Control Board Permitting Unit shall be contacted for determination of permit requirements. Commercial and Industrial developments may require an NOI even if less than one acre is to be disturbed. Obtain coverage or an exemption from these requirements. [Federal Water Pollution Control Act, Section 401, California Clean Water Act]. The permit may include preparation of a Stormwater Pollution Prevention Plan (SWPPP).</li> </ul>	N/A	<p>Incorporated into project bid package</p> <p>Erosion control plan completed prior to 10/15 of the construction year.</p> <p>NOI/NPDES prior to ground disturbance</p>	N/A	Construction contractor	N/A	N/A
<b>BIO-6</b>	<p><b>Mitigation Measure BIO-6: Biological Monitor – Turtles</b></p> <p>Throughout Project construction, a qualified biologist shall be present on-site to monitor all Project activities with the potential to harm WPTs. The Project Biologist may be absent only when, in the opinion of the Project Biologist, activities to be conducted during the biologists' absence are not expected to impact WPTs.</p>	N/A	Prior to ground disturbance including staging	N/A	Construction contractor, Project biologist	N/A	N/A
<b>BIO-7</b>	<p><b>Mitigation Measure BIO-7: Preconstruction Survey / Relocation for Western Pond Turtles</b></p> <p>Within 48 hours of commencing site disturbances, a qualified biologist shall survey for and, if present, relocate any non-nesting western pond turtles</p>	N/A	Prior to ground disturbance including staging	N/A	Construction contractor, Project biologist	N/A	N/A

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
	from construction areas or other areas where turtle disturbance may occur. If found on site in locations where harm to the turtle may occur from project activities, the turtle first will be given the opportunity to leave the site on its own if the turtle actively is in the process of attempting to leave the site and is likely to successfully do so within the hour in the opinion of the qualified biologist. Otherwise, the qualified biologist will relocate the turtle outside the work area. [California Code of Regulations, Title 14, Division 1, Chapter 5, Subsection 40(b)] <sup>1</sup> .						
<b>BIO-8</b>	<p><b>Avoidance and Minimization Measure BIO-8: Preconstruction Surveys Birds</b></p> <p>Prior to construction occurring between February 1<sup>st</sup> and August 30<sup>th</sup> (e.g., staging, excavation, ground disturbance, or vegetation removal) a preconstruction survey for nesting birds will be conducted by a qualified biologist in accordance with the CDFW guidelines and a no-disturbance buffer will be established, if necessary.</p> <p>If equipment staging, site preparation, vegetation removal, grading, excavation or other project-related construction activities are scheduled during the avian nesting season (generally February 1 through August 30), a focused survey for active nests would be conducted by a qualified biologist within 15 days prior to the beginning of project-related activities. Surveys shall be conducted in all suitable habitat in the BSA.</p> <p>If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: (a) 300± feet for raptors; or (b) 75± feet for other non-special-status bird species. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete, and the young have fledged. For species protected under the California Fish and Game Code (CFGC), if active nests are closer than those distances to the nearest work site and there is the potential for bird disturbance, CDFW will be contacted for approval to work</p>	See condition	Incorporated into project bid package and implemented within 15 days of commencing construction if that construction occurs between February 1 <sup>st</sup> and August 30 <sup>th</sup>	N/A	Construction contractor, project biologist	N/A	N/A

<sup>1</sup> Pursuant to California Fish and Game Code Title 14, Subsection 40(b) the capture, temporary collection, or temporary possession of native amphibians done to avoid mortality or injury in connection with lawful activities is permitted and such live capture and release of native amphibians done to avoid death or injury may occur with the permission of the CDFW. Because WPTs are not listed species pursuant to the state or federal endangered species act, neither an incidental take permit nor consultation beyond securing permission from CDFW to capture and release the individuals, is required.



Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
	within 300± feet of raptors, or 75± feet of other non-special-status bird species.						
<b>BIO-9</b>	<p><b>Avoidance and Minimization Measure BIO-9: Hours of Construction.</b></p> <p>Project construction shall be limited to 7:00 a.m. to 7:00 p.m. unless an emergency situation exists.</p>	N/A	Throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A
<b>BIO-10</b>	<p><b>Avoidance and Minimization Measure BIO-10: Avoid Inadvertent Animal Trapping During Construction</b></p> <p>To avoid inadvertently trapping special status or common animal species during construction, all excavated steep-walled holes or trenches more than two feet deep shall be covered at the end of each working day with plywood or similar material or provided with one or more escape ramps constructed of earth fill or wooden planks, or equivalent, at each end of the trench. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped animal is discovered, the contractor shall place an escape ramp or other appropriate structure to allow the animal to escape. Alternatively, the contractor shall contact the project biologist or California Department of Fish and Wildlife for assistance. Similarly, stored pipes or other materials providing potential cover for animals will be inspected prior to installation or use to ensure that they are unoccupied.</p>	N/A	N/A	Throughout project construction	Project proponent, construction contractor – contact Project Biologist, if necessary	N/A	N/A
<b>BIO-11</b>	<p><b>Mitigation Measure BIO 11: Tree Replanting</b></p> <p>Native oak trees 5" or greater in diameter at breast height damaged or removed in conjunction with Project activities shall be replanted on the Project site as follows:</p> <ul style="list-style-type: none"> <li>• Blue oaks: 2 blue oak trees planted for every blue oak tree removed or damaged</li> <li>• Valley oaks: 6 Valley oaks planted for every valley oak tree removed or damaged</li> </ul> <p>A survival rate of at least 75% after five years is required for oak trees planted in conjunction with this measure.</p>	See condition for survival rate	First fall of the year following project completion prior to rains commencing	N/A	Project Proponent	N/A	N/A

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
BIO-12	<p><b>Avoidance and Minimization Measure BIO-12: Wetlands and Other Waters</b></p> <p>A Section 401/404 Permit(s) and a CDFW 1600 Lake or Streambed Alteration Permit shall be acquired prior to commencing Project construction. The Project Proponents shall implement all identified mitigation measures contained in the permits as necessary to achieve no net loss of wetlands.</p>	N/A	Prior to project construction	N/A	Project Proponent	N/A	N/A
BIO-13	<p><b>Avoidance and Minimization Measure BIO-13: Minimize the Spread of Invasive Plant Species</b></p> <p>Throughout project construction:</p> <ul style="list-style-type: none"> <li>All hay, straw, hay bales, straw bales, seed, mulch or other material used for erosion control on the project site shall be free of noxious weed<sup>2</sup> seeds and propagules (Food and Agriculture Code Sections 6305, 6341 and 6461).</li> <li>All equipment brought to the project site shall be thoroughly cleaned of all dirt and vegetation prior to entering the site to prevent importing noxious weeds and shall be cleaned of all dirt and vegetation prior to exiting the site to prevent exporting noxious weeds. (Food and Agriculture Code Section 5401).</li> </ul> <p>All material brought to the site, including rock, gravel, road base, sand, and topsoil, shall be free of noxious weeds<sup>3</sup> and propagules. (Food and Agriculture Code Sections 6305, 6341 and 6461).</p>	N/A	Incorporated into project bid package and implemented throughout project construction	Throughout project construction	Construction contractor, project proponent	N/A	N/A

<sup>2</sup> Noxious weeds are as defined in Title 3, Division 4, Chapter 6, Section 4500 of the California Code of Regulations and the California Quarantine Policy – Weeds (Food and Agriculture Code, Sections 6305, 6341, and 6461).

<sup>3</sup> Ibid.

CULTURAL RESOURCES

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
CULT-1	<b>SEE: Avoidance and Minimization Measure BIO-1: Environmental Awareness Training</b>	N/A	Prior to ground disturbance	N/A	Biologist and Cultural resources professional	N/A	N/A
CULT -2	<p><b>Mitigation Measure CULT-2: Unanticipated Cultural Resource Discoveries</b></p> <p>If a cultural resource is discovered during construction activities, the construction contractor shall comply with the following provisions:</p> <p>A. The person discovering the cultural resource shall notify the project’s designated qualified cultural resource professional by telephone within 4 hours of the discovery or the next working day if the department is closed.</p> <p>B. When the cultural resource is located outside the area of disturbance, the project’s designated qualified cultural resource professional shall be allowed to photodocument and record the resource and construction activities may continue during this process. The area of disturbance is defined to include grading and vegetation removal areas and/or access roads or processing areas plus 100 feet.</p> <p>C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by site’s designated qualified cultural resource professional may continue. The project’s designated qualified cultural resource professional shall be allowed to conduct an evaluative survey to evaluate the significance of the cultural resource.</p> <p>D. When the cultural resource is determined to be not significant, the project’s designated qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project’s designated qualified professional.</p> <p>E. When a resource is determined to be significant, the resource shall be avoided with said resource having boundaries established around its perimeter by the project’s designated qualified cultural resource professional or a cultural resource management plan shall be prepared by the project’s designated qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. The project’s designated</p>	<p>Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA)</p> <p>Secretary of the Interior Standards</p> <p>National Register of Historic Places</p> <p>California Register of Cultural Resources</p>	Throughout project construction	N/A	<p>Construction contractor, project proponent</p> <p>with input from the project’s designated qualified cultural resource professional, if necessary.</p>	N/A	N/A

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
	<p>qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project's designated qualified cultural resource professional. All further activity authorized by this permit shall comply with the cultural resources management plan.</p> <p>For the purposes of implementing this measure, a "qualified cultural resource professional" is an individual (e.g., historian or archaeologist) meeting the Secretary of the Interior's Qualification Standards.</p> <p>A "cultural resource" is any building, structure, object, site, district, or other item of cultural, social, religious, economic, political, scientific, agricultural, educational, military, engineering or architectural significance to the citizens of Stanislaus County, the State of California, or the nation which is 50 years of age or older or has been listed on or is eligible for listing on the National Register of Historic Places, the California Register of Cultural Resources, or any local register. Examples of prehistoric resources may include: stone tools and manufacturing debris; milling equipment such as bedrock mortars, portable mortars, and pestles; darkened or stained soils (midden) that may contain dietary remains such as shell and bone; as well as human remains. Historic resources may include: burial plots; structural foundations; mining spoils piles and prospecting pits; cabin pads; and trash scatters consisting of cans with soldered seams or tops, bottles, cut (square) nails, and ceramics.</p>						
CULT-3	<p><b>Mitigation Measure CULT-3: Human Remains</b></p> <p>If human remains, burial, cremation of other mortuary feature are uncovered during construction activities; upon discovery, secure the location, do not touch or remove remains and associated artifacts; do not remove associated spoils or go through them; document the location and keep notes of activity and correspondence. All work within 100 feet of the discovery shall stop until the County Coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to obtain the Most Likely Descendent (MLD) and follow state law (PRC 5097.9 et seq. and Health and Safety Code 7050.5(c)-7054.1 and 8100 et seq.). No further work or disturbance shall occur within 100 feet until all of the preceding actions, as applicable to the discovery, are implemented and completed. Preserve associated spoils without further disturbance, do not touch or remove remains or</p>	<p>PRC 5097.98 and Health and Safety Code 7050.5(c)</p> <p>[Public Resources Code Sections 5097.94, 5097.98 and Health and Safety Code Section 7050.5(c) and Section</p>	Throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
	associated artifacts, document the location and maintain notes of activity and correspondence. Preservation <i>in situ</i> is the preferred treatment of human remains and associated burial artifacts. [Public Resources Code Sections 5097.94, 5097.98 and Health and Safety Code Section 7050.5(c) and Section 15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177]	15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177]					
<b>CULT-4</b>	<b>Mitigation Measure CULT-4: Project Scope Changes</b>  If the project develops beyond the scope and project description as described herein, further archaeological study and an addendum to this study may be required.	N/A	Pre-construction during plan reviews	Throughout construction via site visits by cultural resources monitoring	Construction contractor, project proponent	N/A	N/A

**ENERGY**

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
<b>ENERGY-1</b>	<b>Mitigation Measure ENERGY-1: Construction Equipment.</b> To the extent feasible, the following measures shall be incorporated into Project design and construction:  <ul style="list-style-type: none"> <li>• Properly tune and maintain construction equipment and vehicles.</li> <li>• On-site idling of construction equipment shall be minimized (no more than five minutes maximum).</li> <li>• Biodiesel shall be used as an alternative fuel diesel for at least 15 percent of the construction vehicles/equipment used if there is a biodiesel station within five miles of the Project site.</li> </ul>	N/A	Throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A

GEOLOGY AND SOILS

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
GEO-1	<p><b>MM GEO-1: Sediment Control</b>            Throughout Project construction:</p> <ul style="list-style-type: none"> <li>a. Excavation areas will be limited to areas with slopes of less than a 10 percent gradient.</li> <li>b. Re-contouring the floodplain after coarse sediment excavation will result in slopes with a 2:1 ratio to ensure slope stability and prevent erosion in those areas where the floodplain will be day-lighted back to the existing slopes.</li> <li>c. All materials excavated from the project site will be used on the project site. No excavated materials will be transported or sold off the project site.</li> <li>d. Excavated gravels and cobbles will be cleaned prior to placement in the river. Sediments will be cleaned (wet-washed or dry-screened) prior to placement in the river channel.</li> <li>e. River water is proposed to be pumped temporarily from the river for the cobble and gravel washing process (dust-control). A sediment pond will be constructed at the wash site, adjacent to the stockpile area, to control any sediment runoff from the Project site.</li> </ul>		Throughout project construction	N/A	Construction contractor, project proponent		
GEO-2	<p><b>Mitigation Measure GEO-2: Paleontological Resources</b></p> <p>If paleontological resources are encountered during Project construction and no paleontological monitor is present, all ground disturbing activities within 50 feet of the find shall be redirected to other areas until a qualified paleontologist (as determined by the Project’s qualified cultural resource professional) can be contacted to evaluate the find and make recommendations. If determined significant pursuant to CEQA and Project activities cannot avoid the paleontological resources, a paleontological evaluation and monitoring plan shall be implemented.</p> <p>Adverse impacts to significant paleontological resources shall be mitigated, which may include monitoring, data recovery and analysis, a final report, and the curation of all fossil material to a paleontological repository, museum, or academic institution, as appropriate. Upon completion of Project ground-disturbing activities, a report documenting methods, findings, and recommendations shall be prepared and submitted to the paleontological repository.</p>		Throughout project construction	N/A	Construction contractor, project proponent  Qualified paleontologist		

GREENHOUSE GASES

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
GHG-1	<p><b>Mitigation Measure GHG -1: Authority to Construct/Permit to Operate</b></p> <p>Prior to commencing project activities, the Project Proponent/Contractor shall secure an Authority to Construct Permit and Permit to Operate or waiver from the SJVAPCD for equipment used for processing (e.g., pumps in excess of 50 hp; screening equipment), constructing or improving access roads and related activities. The Authority to Construct Permit shall ensure that equipment used is certified for compliance with noise and air quality requirements of the State of California.</p>	N/A	Secure permit prior to commencing site disturbance and implement throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A
GHG-2	<p><b>See Mitigation Measure Energy-1: Construction Equipment</b></p>	N/A	Throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A
GHG-3	<p><b>Mitigation Measure GHG-3: Construction Material.</b> To the extent feasible, the following measures shall be incorporated into Project design and construction:</p> <ul style="list-style-type: none"> <li>• At least 10 percent of the building material used for the proposed project shall be local.</li> <li>• At least 50 percent of construction waste or demolition materials shall be recycled.</li> </ul>	N/A	Throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A

HAZARDS & HAZARDOUS MATERIALS

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
HAZ-1	<b>SEE Mitigation Measure BIO-1: Environmental Awareness Training</b>	N/A	Initial training - prior to commencing construction	Throughout project construction	Construction contractor.  The Project Biologist (or Project Archaeologist) shall have the authority to stop work or remove any construction worker on site that has not completed training.	N/A	N/A
HAZ-2	<b>MM HAZ-02: Spill Prevention Plan</b>  Prior to site disturbance, prepare a spill response plan to address the appropriate methods for containing accidental spills of toxic materials (e.g., engine oils).	N/A	Plan- prior to site disturbance.  Implement throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A
HAZ-3	<b>MM HAZ-03: Mercury</b>  Gravel wash water area(s) shall be located more than 500± feet from the river and shall include a sediment basin for all wash water to be collected and percolated through the ground. Note: It is anticipated that some water will be pumped from the river as necessary to implement dust-control measures—therefore, any runoff from gravel cleaning activities will include these provisions. Dry screening for gravel cleaning (without the use of rinse water) will use screens of sufficient size to eliminate sands with the potential to contain mercury.	N/A	Throughout project construction	N/A	Construction contractor, project proponent	N/A	N/A



**HYDROLOGY AND WATER QUALITY**

Mitigation Measure Reference	Mitigation Measure
HYDRO-1	See Mitigation Measure BIO-5: Erosion Control Plan / Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)
HYDRO-2	See Mitigation Measure GEO-1: Sediment Control
HYDRO-3	See Mitigation Measure BIO-4: Install Barrier / Silt Fencing to Protect Water Quality
HYDRO-4	See Mitigation Measure BIO-1: Environmental Awareness Training
HYDRO-5	See Mitigation Measure HAZ-2: Spill Prevention Plan
HYDRO-6	See Mitigation Measure HAZ-3: Mercury

**NOISE**

Mitigation Measure Reference	Mitigation Measure
NOISE-1	See Mitigation Measure BIO-9: Hours of Construction
NOISE-2	See Mitigation Measure AQ-3: Authority to Construct

**TRIBAL CULTURAL RESOURCES**

Mitigation Measure Reference	Mitigation Measure
TCR-1	See Mitigation Measure BIO-1: Environmental Awareness Training
TCR-2	See Mitigation Measure CULT-2: Unanticipated Cultural Resource Discoveries
TCR-3	See Mitigation Measure CULT-3: Human Remains
TCR-4	See Mitigation Measure CULT-4: Project scope changes