

**CALENDAR ITEM  
C19**

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08/09/16  
PRC 8609.9  
C. Hudson

**GENERAL LEASE – OTHER**

**APPLICANT:**

Tuolumne River Conservancy, Inc., a California Nonprofit Corporation

**PROPOSED LEASE:**

*AREA, LAND TYPE, AND LOCATION:*

Sovereign land in the Tuolumne River channel and floodplain at Bobcat Flat, approximately 5 river miles west of the community of La Grange near River Mile 43, Stanislaus County.

*AUTHORIZED USE:*

Restoration and rehabilitation of the bed of the Tuolumne River channel and associated floodplain to improve wildlife and aquatic habitat.

*LEASE TERM:*

4 years, beginning August 9, 2016.

*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.

*SPECIFIC LEASE PROVISIONS:*

1. Liability insurance with coverage of no less than \$1,000,000 per occurrence.
2. At all times during construction, Lessee agrees to install precautionary signage or warning buoys upstream and downstream of the construction in the river to provide adequate warning notices to recreational users on the river of the potential safety hazards associated with project construction.

CALENDAR ITEM NO. **C19** (CONT'D)

**STAFF ANALYSIS AND RECOMMENDATION:**

**Authority:**

Public Resources Code sections 6005, 6216, and 6301; California Code of Regulations, title 2, section 2000, subdivision (b).

**Public Trust and State's Best Interests Analysis:**

The Tuolumne River Conservancy, Inc., is a nonprofit organization funded by the CALFED Bay-Delta Authority, U.S. Fish and Wildlife Service, Anadromous Fish Restoration Program, the City and County of San Francisco, and Stanislaus Fly Fishermen to restore and rehabilitate the Tuolumne River channel and associated floodplain to improve wildlife and aquatic habitat.

On June 23, 2011, the Commission authorized a General Lease – Habitat Restoration to Friends of the Tuolumne, Inc., a California Nonprofit Corporation, Lease No. PRC 8609.9. The lease expired on June 22, 2013. The Applicant has since changed its name and is now applying for a lease for the continuation of Phase II of the multi-phase Tuolumne River Channel and Floodplain Restoration Project.

The Tuolumne River Conservancy, Inc., is continuing with Phase II of the restoration project in the bed of the Tuolumne River channel and associated floodplain to help restore Chinook salmon and Central Valley steelhead and enhance spawning and rearing habitat, which benefits other biota that depend on riverine, riparian, and floodplain habitats. The restoration is scheduled to begin August 2016. Construction and restoration work activities in the river and floodplain are limited to between July 15 and October 15 of each year. The intent of the project is to excavate and sort the remnant dredger tailings and re-introduce coarse sediment into the river to supplement spawning habitat. No non-native construction materials will be used.

The proposed project consists of extracting cobbles and coarse gravels, coarse sediment introduction, and slough and riparian restoration along the north bank of the Tuolumne River between river miles 42.5 to 43.5. The proposed project footprint on the north bank includes about 11 acres where approximately 36,500 cubic yards will be excavated from the degraded floodplain at five existing borrow sites. Two areas totaling 1.8 acres will be used to store screened, sorted, and cleaned cobble and gravel during the course of the construction project. No excavated materials will be transported off the project site or sold. It is anticipated

CALENDAR ITEM NO. **C19** (CONT'D)

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.

Approximately 16,000 cubic yards of cobbles and coarse gravels 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 of 4,500 cubic yards to reconnect Duck Slough and to partially fill the slough with 2,500 cubic yards to create a shallow side channel. The remaining material will be used to fill in two remnant off-channel mining pits, which will prevent potential stranding and adverse conditions for salmonids during moderate flow events, which will restore and enhance spawning and rearing habitat of Chinook salmon and Central Valley steelhead, and to 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.

This wildlife and aquatic habitat restoration project is a water-dependent use that is generally 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.

For all the reasons above, Commission staff believes the issuance of this lease is consistent with the common law Public Trust Doctrine and in the best interests of the State.

**OTHER PERTINENT INFORMATION:**

1. Applicant owns the upland adjoining the lease premises.
2. This action is consistent with Strategy 1.1 of the Commission's Strategic Plan to deliver the highest levels of public health and safety in the protection, preservation, and responsible economic use of the lands and resources under the Commission's jurisdiction.
3. A Mitigated Negative Declaration, State Clearinghouse No. 2010072048, was prepared by the California Department of Fish and Wildlife and

CALENDAR ITEM NO. **C19** (CONT'D)

adopted on August 25, 2010, for this Project. California State Lands Commission staff has reviewed such document.

A Mitigation Monitoring Program was adopted by the California Department of Fish and Wildlife.

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

**APPROVALS OBTAINED:**

U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration's National Marine Fisheries Service, California Regional Water Quality Control Board, California Department of Fish and Wildlife, Central Valley Food Protection Board, and the San Joaquin Valley Unified Air Pollution Control District.

**EXHIBITS:**

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

**RECOMMENDED ACTION:**

It is recommended that the Commission:

**CEQA FINDING:**

Find that a Mitigated Negative Declaration, State Clearinghouse No. 2010072048, and a Mitigation Monitoring Program were prepared by the California Department of Fish and Wildlife and adopted on August 25, 2010, for this Project and that the Commission has reviewed and considered the information contained therein.

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

CALENDAR ITEM NO. **C19** (CONT'D)

**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, is consistent with the common law Public Trust Doctrine, 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:**

Authorize issuance of a General Lease - Other to Tuolumne River Conservancy, Inc., a California Nonprofit Corporation beginning August 9, 2016, for a term of 4 years, for restoration and rehabilitation of the bed of the Tuolumne River channel and associated floodplain to improve wildlife and aquatic habitat as described in Exhibit A and shown on Exhibit B (for reference purposes only), attached and by this reference made a part hereof; consideration is the public use and benefit, with the State reserving the right at any time to set a monetary rent as specified in the lease if the Commission finds such action to be in the State's best interests; and liability insurance in an amount no less than \$1,000,000 per occurrence.

EXHIBIT A

PRC 8609.9

LAND DESCRIPTION

All that sovereign land lying in the bed of the Tuolumne River, Stanislaus County, California as described in:

Exhibit A of Doc-2001-0066758-00, a Grant Deed dated May 25, 2001 and recorded June 20, 2001 in the office of the County Recorder of said County and

Adjusted Parcel C of Doc-2002-0094209-00, a Correction Grant Deed dated July 22, 2002 and recorded July 24, 2002 in the office of the County Recorder of said County.

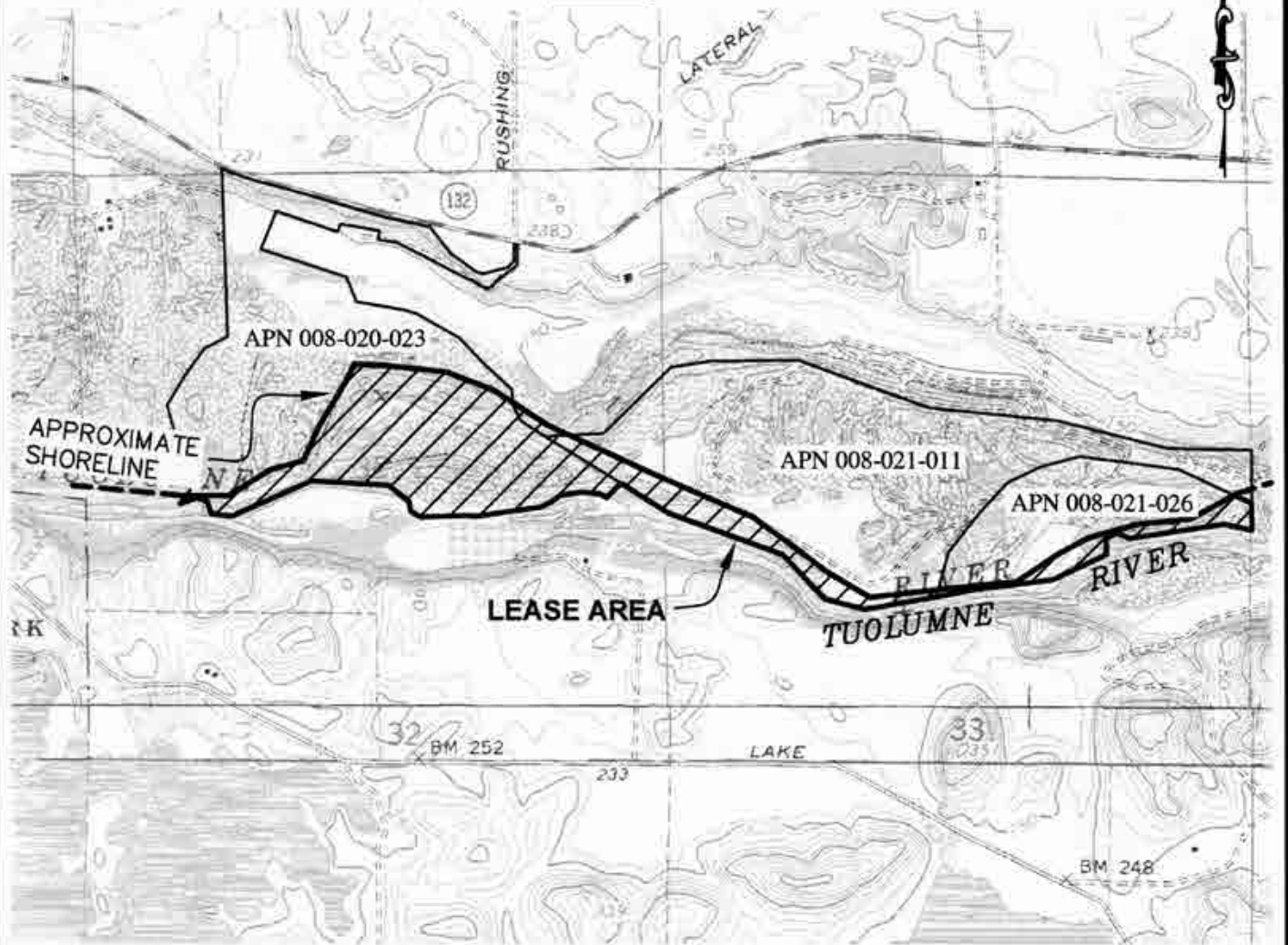
EXCEPTING THEREFROM any portion lying landward of the Ordinary Low Water Mark of the Tuolumne River.

Prepared June 14, 2005 by California State Lands Commission Boundary Unit



NO SCALE

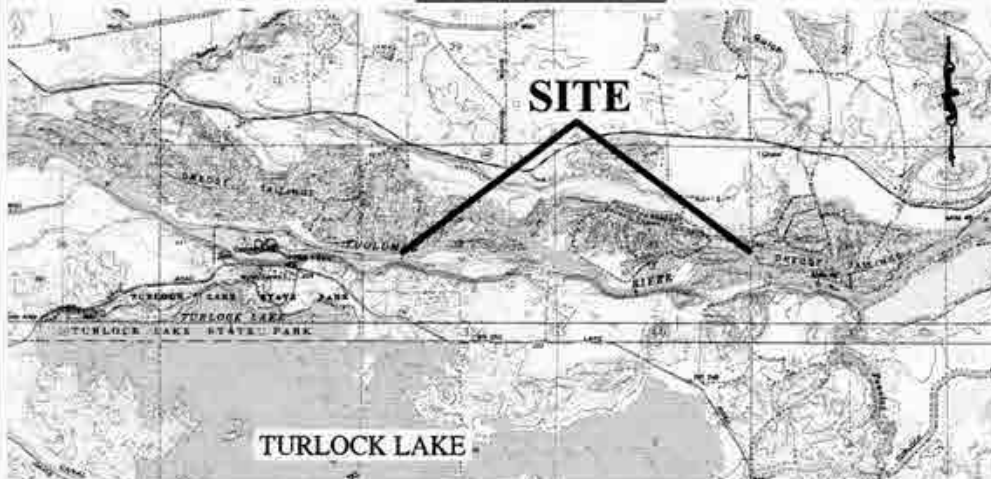
# SITE



TUOLUMNE RIVER AT BOBCAT FLAT, NEAR WATERFORD

NO SCALE

# LOCATION



MAP SOURCE: USGS QUAD

## Exhibit B

PRC 8609.9

TUOLUMNE RIVER  
CONSERVANCY, INC.

APN 008-021-011 & 026, 008-020-023

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.

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

**BOBCAT FLAT WEST SALMON HABITAT RESTORATION PHASE II, MILE 43**  
(PRC 8609.9, State Clearinghouse No. 2010072048)

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The California State Lands Commission (Commission) is a responsible agency under the California Environmental Quality Act (CEQA) for the Bobcat Flat West Salmon Habitat Restoration Phase II, Mile 43 (Project). The CEQA lead agency for the Project is the California Department of Fish and Wildlife.

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 Commission lands. The purpose of a MMP is to discuss 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:<sup>1</sup>

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

The lead agency has adopted an MND; State Clearinghouse No. 2010072048, and adopted a MMP for the whole of the Project (see Exhibit C, Attachment C-1) and remains responsible for ensuring that implementation of the mitigation measures 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 mitigation measure, as set forth in the MMP prepared by the CEQA lead agency and listed in Attachment C-1, is incorporated by reference in this Exhibit C. Any mitigation 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 mitigation measure are underlined; and
- Deletions of the text of the mitigation measure are shown as ~~strikeout~~ or as otherwise noted.

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



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

Potential Impact	Mitigation Measure (MM) <sup>2</sup>	Difference Between CSLC MMP and Lead Agency MMP
Impacts to air quality from fugitive dust.	MM AQ-01	None
Impacts to air quality from equipment emissions	MM AQ-02	None
Impacts to air quality from potential burn activities	MM AQ-03	None
Impacts to Chinook salmon and steelhead	MM BIO-1	None
Impacts to raptors and other nesting birds from vegetation removal	MM BIO-2	None
Impacts to raptors and other nesting birds from ground disturbance and construction	MM BIO-3	None
Impacts to Western pond turtles	MM BIO-4	None
Impacts to Valley Elderberry Longhorn Beetle (VELB)	MM BIO-5	None
Impacts to bird habitat	MM BIO-6	None
Impacts to salmonid habitat – erosion	MM BIO-7	None
Impacts to VELB – elderberry bush impacts and VELB flight	MM BIO-8	None
Impacts to wildlife from construction	MM BIO-9	None
Impacts to aquatic habitat – water quality	MM BIO-10	None
Impacts to aquatic habitat – sediment plan	MM BIO-11	None
Impacts to wildlife from tree and vegetation removal	MM BIO-12	None
Impacts to aquatic habitat from dredge/fill activities	MM BIO-13	None
Impacts to cultural resources from inadvertent artifact discovery	MM CULT-01	See below
Impacts to cultural resources – discovery of human remains	MM CULT-02	See below
Impacts to soil stability	MM GEO-01 MM GEO-02	None
Impacts to bank stability	MM GEO-03	None
Impacts to human health and wildlife from mercury	MM HAZ-01	None
Impacts to human health and the environment from spilled toxic materials	MM HAZ-02	None
Impacts to water quality from runoff	MM HYDRO-01	None
Impacts to water quality from erosion	MM HYDRO-02	None
Impacts to water quality from erosion, sediment	MM HYDRO-03	None
Impacts to sensitive receptors from equipment	MM NOISE-01 MM NOISE-02	None

<sup>2</sup> See Attachment C-1 for the full text of each MM taken from the MMP prepared by the CEQA lead agency.

MITIGATION MEASURE CULT-01: All contractors and equipment operators shall be instructed to watch for potential archeological artifacts (including glass pieces, ceramic pieces, square nails and human remains). If a potential cultural resource is discovered during the any portion of the activities described for this project, the following provisions will be implemented:

- The person discovering the cultural resource will notify the professional archaeologist by telephone within 4 hours of the discovery or the next working day if their office is closed. Project Archaeologist: Shelly Davis-King, phone: (209) 928-3443.
- When the cultural resource is located outside the area of disturbance, the professional archaeologist will be allowed to photodocument and record the resource and construction activities may continue during this process. The area of disturbance includes grading and vegetation removal, plus 33 feet (10 meters).
- When the cultural resource is located within the area of disturbance, all activities that may impact the resource will cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by the consulting archaeologist may continue. A qualified archaeological professional, such as an archaeologist or an historian, will conduct a survey to evaluate the significance of the cultural resource.
- When the cultural resource is determined to not be significant under the criteria of the California Register of Historical Resources, the qualified professional archaeologist will photodocument and record the resource. Construction activities may resume after authorization from the professional archaeologist.
- When a resource is determined to be significant under the criteria of the California Register of Historical Resources, the resource will be avoided with said resource having boundaries established around its perimeter by a qualified professional archaeologist or historian or a cultural resource management plan shall be prepared by a 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 qualified professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the professional archaeologist.
- Commission staff shall be notified of any significant cultural resources or paleontological specimens discovered on lands under the jurisdiction of the Commission. The final disposition of archaeological and historical resources and paleontological specimens from such lands must be approved by the Commission.

MITIGATION MEASURE CULT-02: If human remains are discovered during subsurface excavations on the project site, work will immediately stop and the County Coroner will be notified. No work will resume until the Coroner has made the necessary determination as to the origin and disposition of the remains, pursuant to Public Resources Code, Section 5097.98 and State Health and Safety Code, Section 7050.5. If the remains are Native American, the coroner must notify the Native American Heritage Commission within 24 hours. The NAHC will immediately notify the Most Likely Descendant (Public Resources Code 5097.98). If the human remains are Native American and are found on lands under the jurisdiction of the Commission, Commission staff shall also be notified to address any landowner responsibilities.

## **ATTACHMENT C-1**

**Mitigation Monitoring Program Adopted by the  
California Department of Fish and Wildlife**

**APPENDIX A  
MITIGATION AND MONITORING MEASURES**

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<i>Air Quality</i>			
<u>AQ-01.</u> Submit for approval a Dust Control Plan pursuant to Regulation VIII of the San Joaquin Valley Air Pollution Control District.	Prior to commencing construction.	Friends of the Tuolumne	CDFG
<u>AQ-02.</u> Obtain an Authority to Construct permit or waiver from the San Joaquin Valley Air Pollution Control District.	Prior to commencing construction	Friends of the Tuolumne	CDFG
<u>AQ-3.</u> If burning is require for on site brush, a burn permit shall be secured from the San Joaquin Valley Air Pollution Control District.	Prior to commencing burning	Friends of the Tuolumne	CDFG
<i>Biological Resources</i>			
<u>BIO-1.</u> a. In stream work shall be limited to a specific time period to avoid spawning and rearing and out migration periods for the Chinook salmon and steelhead.  b. Pre-construction meetings will be conducted to brief all contractors and workers on best management practices: <ul style="list-style-type: none"> <li>• Access routes to the construction area and the size of staging and work areas will be limited to the minimum necessary to achieve the project goals. Routes and boundaries of the access roads will be clearly marked prior to initiating construction/grading.</li> <li>• Timing for in-stream work (July 15<sup>th</sup> to October 15<sup>th</sup> and restricted to the hours of 7:00 a.m. to 7:00 p.m.)</li> <li>• All food and food related trash will be enclosed in</li> </ul>	a. In stream work shall be confined to July 15 <sup>th</sup> to October 15 <sup>th</sup>  b. Prior to ground or vegetation disturbance.	Friends of the Tuolumne	CDFG

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>sealed trash containers at the end of each workday and removed completely from the construction site once every three days.</p> <ul style="list-style-type: none"> <li>• No pets will be allowed on the construction site.</li> <li>• No firearms will be allowed on the construction site.</li> <li>• A speed limit of 15 mph on dirt roads will be maintained.</li> <li>• All equipment will be maintained such that there will be no leaks of automotive fluids such as fuels, oils, and solvents. Any fuel or oil leaks will be cleaned up immediately and disposed of properly.</li> <li>• Hazardous materials such as fuels, oils, solvents, etc. will be stored in sealable containers in a designated location that is at least 500 feet from the channel.</li> <li>• Other conditions necessary to minimize and avoid project impacts.</li> </ul>			
<p><b>BIO-2.</b></p> <p>a. When feasible, tree and brush removal shall occur between February 1<sup>st</sup> and August 30<sup>th</sup> to avoid the general nesting season for raptors and other birds. In the event that trees or vegetation removal must occur during the avian nesting season (between February 1st and August 30th) nesting bird surveys shall be conducted by a qualified biologist no more than 30 days before initiating tree or brush removal activities to verify that no nesting sites will be impacted.</p> <p>b. If active nests are found during the required nesting bird surveys or through other means, a minimum 100-foot buffer zone shall be established around all active nests, and this buffer will remain around each active nest until a qualified biologist has determined that the young have fledged. If a nesting Swainson's hawk, bald eagle or white-tailed kite is identified on-site or within 0.5 miles of the construction site, a minimum 0.25 mile buffer shall be established around each nest and CDFG will be notified within 24 hours of identifying the active nest. Routine</p>	<p>a. Prior to ground disturbance or vegetation removal between February 1<sup>st</sup> and August 30th.</p> <p>b. Any time active nests are found.</p>	Friends of the Tuolumne	CDFG

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>monitoring, as directed by CDFG, of these nests will be required, and the buffer zones may need to be enlarged if it appears that project-related activities are or could be causing stress to nesting birds and/or their eggs/young.</p> <p>c. Educate contractors and workers prior to commencement of construction and excavation activities on the appropriate timing for vegetation removal.</p> <p>d. Conduct a pre-construction meeting to brief all contractors and workers regarding:</p> <ul style="list-style-type: none"> <li>• Timing for tree and vegetation removal.</li> <li>• Verifying that a qualified biologist has completed pre-construction nesting bird surveys.</li> <li>• Provide information to onsite workers to look for and recognize Swainson's hawk, bald eagles, white-tailed kites and other special status birds and their nests to avoid accidental direct impacts (i.e., "take") by removing trees or bushes containing active nests.</li> <li>• Measures to avoid impacts to nesting birds will be implemented by workers and include delineating and adhering to buffer zones.</li> <li>• Other conditions necessary to minimize and avoid project impacts.</li> </ul>	<p>c. Prior to removing trees, brush, or commencing construction activities.</p> <p>d. Prior to removing trees, brush, or commencing construction activities.</p>		
<p><u>BIO-3.</u></p> <p>a. Conduct a pre-construction meeting to brief all contractors and workers prior to commencement of ground disturbance and construction activities regarding:</p> <ul style="list-style-type: none"> <li>• Timing for ground disturbance and construction activities.</li> <li>• Verifying that a qualified biologist has completed pre-construction nesting bird surveys.</li> <li>• Provide information to onsite workers to look for and recognize Swainson's hawk, bald eagles, white-tailed kites and other special status birds and their nests to</li> </ul>	<p>a. Prior to project initiation.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>avoid accidental direct impacts (i.e., “take”) by disturbing nesting activities with ground disturbance or construction encroachment.</p> <ul style="list-style-type: none"> <li>• Measures to avoid impacts to nesting birds will be implemented by workers and include delineating and adhering to buffer zones.</li> <li>• Other conditions necessary to minimize and avoid project impacts.</li> </ul>			
<p><u>BIO-4.</u></p> <p>a. A qualified biologist shall conduct a visual pre-construction survey for western pond turtles and potential turtle nesting sites in those areas proposed for disturbance. If a turtle nest is found within an area proposed for disturbance, then a 50 foot buffer area shall be established to protect the nest.</p> <p>b. Conduct a pre-construction meeting to brief all contractors and workers regarding:</p> <ul style="list-style-type: none"> <li>• Verifying that a qualified biologist has completed pre-construction surveys for western pond turtles and that survey results were negative or other provisions as identified in the mitigation measure have been put into place. Minimum 50-foot buffer zones around all turtle nests will be established and clearly delineated. Include contact information for the project biologist and for the CDFG to the project contractors.</li> <li>• Provide information to onsite workers to recognize and look for the turtles moving about the project site to avoid accidental direct impacts (i.e., “take”) to one or more individual western pond turtles (e.g., driving over turtles with construction equipment as turtles cross roadways or the active construction site).</li> <li>• Ensure that turtles can escape from the steep-walled sedimentation pits by providing ramps or other escape routes.</li> </ul>	<p>a. No more than 30 days prior to project initiation or commencing any ground disturbing work.</p> <p>b. Prior to project initiation or commencing any ground disturbing work.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>



MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<ul style="list-style-type: none"> <li>• Allowing turtles to leave a roadway or construction zone before continuing work,</li> <li>• Observing a 15 mph speed limit for all vehicles and construction equipment.</li> </ul>			
<p><u>BIO-5.</u></p> <p>a. Erect brightly colored temporary fencing that will remain in place and be maintained throughout project construction and restoration activities:</p> <ul style="list-style-type: none"> <li>• 20 feet from the outer edge of the dripline of elderberry shrub "K"</li> <li>• No work shall occur within 100 feet of any remaining elderberry shrubs</li> <li>• Contractors and workers will be briefed on the importance of not disturbing the buffer zones around elderberry bushes.</li> </ul>	<p>a. Prior to ground or vegetation disturbance and prior to moving equipment on site.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>
<p><u>BIO-6.</u></p> <p>a. Brush or other vegetation removed to facilitate access to the river for sediment enhancement will be re-used in brush piles for bird habitat to the maximum extent feasible.</p> <p>a. Prior to burning any remaining brush on site, a waiver or permit for agricultural burning will be secured from the San Joaquin Valley Air Pollution Control District.</p>	<p>a. Prior to ground or vegetation disturbance, whichever occurs first, a pre-construction meeting will be held to brief all contactors and workers regarding the disposition of brush to be retained and to be burned.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>
<p><u>BIO-7.</u></p> <p>a. All gravels will be cleaned before being placed in the river.</p> <ul style="list-style-type: none"> <li>• For wet washing and for mist screens used during the dry cleaning process, water will be pumped from the river and existing on-site ponds using a hose fitted with a NMFS-approved screen sufficient to exclude juvenile fish.</li> <li>• Runoff from all gravel washing activities will be</li> </ul>	<p>a. Prior to ground or vegetation disturbance a pre-construction meeting will be held to brief all contactors and workers regarding the use of hose screens and</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>contained within a sediment basin and the runoff will be allowed to percolate into the ground below the basin.</p>	<p>wash / mist screen runoff water requirements.</p>		
<p><b>BIO-8.</b>  a. All elderberry shrubs located on the project site will be retained.</p> <ul style="list-style-type: none"> <li>• During the flight of the valley elderberry longhorn beetle (March 15 – June 15), no construction work will occur within 100 feet of the dripline of any elderberry shrub.</li> <li>• Outside of the flight of the valley elderberry longhorn beetle (June 30 – March 1), no disturbance will occur within 20 feet of the outer drip line of the elderberry shrub designated as “K” (see Figure 6). For all other elderberry shrubs on site, construction work will not occur within 100 feet of the dripline.</li> <li>• No insecticides, herbicides, fertilizers, or other chemicals that may impact or otherwise harm the beetle or its host plant shall be used within 100 feet of any elderberry bush.</li> <li>• Buffer zones around each elderberry bush on site will be clearly delineated through the use of temporary fencing.</li> </ul>	<p>a. Prior to moving any equipment onto the site, a pre-construction meeting will be conducted to brief all contactors and workers regarding:</p> <ul style="list-style-type: none"> <li>• Buffer zones for elderberry bushes during the VELB flight and outside of the VELB flight.</li> <li>• The exclusion zone for the use of insecticides, herbicides, fertilizers, and other chemicals that could harm the VELB or its host plant.</li> <li>• Prior to any ground disturbing activities, erect temporary fencing clearly delineating the buffer zones around each elderberry bush on site.</li> </ul>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p><u>BIO-9.</u></p> <p>a. During Project construction</p> <ul style="list-style-type: none"> <li>• Equipment and vehicles will not exceed a speed limit of 20 miles per hour within the project boundaries to avoid potential impacts to wildlife.</li> <li>• To prevent inadvertent entrapment of wildlife during construction, all excavated steep walled holes or trenches should be covered during the close of each working day and provided with one or more escape ramps.</li> <li>• Before each hole or trench is filled it should be thoroughly inspected for trapped animals.</li> <li>• The construction site, construction materials, and equipment should be inspected each morning before work begins to confirm the absence of wildlife.</li> <li>• All food-related trash items such as wrappers, cans, bottles, and scraps will be disposed of in closed containers and removed at least every three days from the project site.</li> </ul> <p>b. Pre-construction meetings will be conducted to brief all contractors and workers on best management practices.</p>	<p>a. At all times During Project construction.</p> <p>b. Prior to moving any equipment onto the site or commencement of any ground disturbing activities.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>
<p><u>BIO-10.</u></p> <p>a. Prepare a spill response plan to address the appropriate methods for containing accidental spills of toxic materials (e.g., engine oils).</p> <p>b. Throughout Project construction:</p> <ul style="list-style-type: none"> <li>• Removal of mature trees and shrubs shall be limited to areas indicated on the project site plan as necessary to</li> </ul>	<p>a. Prior to moving any equipment onto the site or commencement of any ground disturbing activities.</p> <p>b. Prior to site disturbance a pre-construction meeting will be</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>access new gravel bars to be created or enhanced for fish habitat restoration along the river on the project site in accordance with the project site plan (<b>Figures 4&amp;5</b>)</p> <ul style="list-style-type: none"> <li>• All gravel processing areas (washing, sorting, screening, stockpiling) shall occur a minimum of 500 feet from the river channel. As noted, the project proponents initially will clean gravels using both wet-washing and dry-screening techniques for comparison. The more effective of the two options will be implemented for the majority of the project.</li> <li>• Storing or washing equipment, vehicles or construction materials shall not occur within 500 feet of the river or pond areas.</li> <li>• Equipment refueling and maintenance shall occur outside of the floodplain.</li> <li>• Stream crossings and pond crossings shall be limited to those areas identified on the project site plan (<b>Figures 4&amp;5</b>).</li> <li>• All gravels shall be cleaned before being placed in the river. The project proponents initially will clean gravels using both wet-washing and dry-screening techniques for comparison. The more effective of the two options will be implemented for the majority of the project. For wet-washing, (and potentially for dry-screening which will employ a mist screen above/through the dust when heavy dust is generated by the screen plant in accordance with SJVAPCD regulations), water shall be obtained from the river. The pump hose for water extraction shall be fitted with a NMFS-approved screen sufficient to exclude juvenile fish. Alternatively, water may be pumped from on-site ponds using the same NMFS approved screening and velocity reduction methods. Runoff from all gravel washing activities shall be contained within a sediment basin. Runoff will be allowed to percolate into the ground below the sediment basin.</li> </ul>	<p>conducted to brief all contactors and workers on best management practices.</p>		

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<ul style="list-style-type: none"> <li>All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers and removed at least every three days from the project site.</li> <li>To avoid the potential for introduction of invasive species such as New Zealand mudsnails (<i>Potamopygus antipodarum</i>) into the Tuolumne River or Mud Slough, all equipment will be steam cleaned prior to use on the project and immediately after the work is completed and before being used in other waterbodies.</li> </ul>			
<p><u>BIO-11.</u></p> <p>a. An erosion and sediment control plan shall be implemented to prevent impacts outside of the project construction area. Bank, landscape excavation areas, and all other disturbed areas (including road access points to the river used to deposit gravels for enhancement or construction of gravel bars) shall be stabilized as soon as possible or no later than October 15<sup>th</sup> of the construction year. Disturbed areas shall be stabilized using tightly woven natural fiber netting or similar material to ensure sensitive wildlife (such as western pond turtles) cannot be trapped. No plastic monofilament matting will be used for erosion control.</p> <p>b. Revegetation shall be in accordance with the project Revegetation Plan (<b>Appendix B</b>). Only certified weed free native grass seed will be used for reseeding.</p>	<p>a. The erosion and sediment control plan will be developed prior to moving any equipment onto the site or commencement of any ground disturbing activities.</p> <p>b. Prior to moving equipment on-site, ground disturbance, construction or excavation activities a pre-construction meeting with contractors, equipment operators shall be conducted to review this project requirement</p>	Friends of the Tuolumne	CDFG
<p><u>BIO-12.</u></p> <p>a. Prior to commencing soil disturbances, protection buffers will be established around trees to be retained that are</p>	<p>a. In accordance with grant provisions, grant</p>	Friends of the Tuolumne	CDFG

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>located in proximity to construction areas (e.g., roadways, borrow areas). Within one year of soil disturbance, revegetation shall occur as outlined in <b>Appendix B</b>. Fines segregated from the gravel during screening will be placed in the excavated areas to improve substrate for planting and recruitment.</p> <p>b. Should survival rates fall below 70% within a three year time span, Friends of the Tuolumne will add survival shortfalls and will conduct replanting and monitoring annually as necessary to achieve a 70% survival rate.</p>	<p>reporting will include the results of an inventory of new plants (valley oaks and riparian plantings) and indicate their survival rate.</p>		
<p><u>BIO-13.</u></p> <p>a. Prior to ground or vegetation disturbance, whichever occurs first, obtain the following permits, authorizations, certifications, or agreements:</p> <ul style="list-style-type: none"> <li>• Authorization under federal Clean Water Act Section 404</li> <li>• A federal Clean Water Act Section 401 Water Quality Certification</li> <li>• A Lake or Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code</li> <li>• Central Valley Flood Protection Board (CVFPB) Encroachment Permit (CA Code of Regulations, Title 23, Division 1, Article 3, Section 6)</li> <li>• Grading Permit, or waiver, from the Stanislaus County Department of Public Works (Stanislaus County Code Section 16.05.060)</li> <li>• Prepare, submit and secure approval for a Dust Control Plan from the San Joaquin Valley Air Pollution Control District. The Dust Control Plan should include provisions for an on-site watering truck to provide for wetting during gravel processing, extraction activities and haul roads. (APCD, Regulation VIII)</li> </ul>	<p>a. Document the necessary permits, authorizations, certifications, or agreements as listed have been obtained prior to any vegetation removal / ground disturbance.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<ul style="list-style-type: none"> <li>• Secure an Authorization to Construct permit, or waiver, from the San Joaquin Valley Air Pollution Control District (APCD Rule 2010)</li> <li>• Complete appropriate consultations with the U.S. Fish and Wildlife Service/NOAA Fisheries</li> <li>• Acquire an Encroachment Permit from the California State Lands Commission (Public Resources Code Section 6221)</li> <li>• Waiver for mineral extraction operations from the Stanislaus County Community Development Department (Stanislaus County Code Section 21.20.030)</li> </ul>			
<p><u>BIO-14.</u></p> <p>a. During Project Construction &amp; Enhancement Activities, all work shall be conducted in accordance with the conditions established pursuant to the following permits, consultations and agreements:</p> <ul style="list-style-type: none"> <li>• Authorization under federal Clean Water Act Section 404 (CWA, Section 404)</li> <li>• Federal Clean Water Act Section 401 Water Quality Certification (CWA, Section 401)</li> <li>• Lake or Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code (CA Fish and Game Code, 1602 et seq.)</li> <li>• Central Valley Flood Protection Board (CVFPB) Encroachment Permit (CA Code of Regulations, Title 23, Division 1, Article 3, Section 6)</li> <li>• Grading Permit, or waiver, from the Stanislaus County Department of Public Works (Stanislaus County Code Section 16.05.060)</li> <li>• Dust Control Plan from the San Joaquin Valley Air Pollution Control District. The Dust Control Plan should include provisions for an on-site watering truck to provide for wetting during gravel processing,</li> </ul>	<p>a. Document the necessary reporting requirements have been satisfied to demonstrate work was conducted consistent with issued permits, authorizations, certifications, or agreements for the life of the construction project.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>extraction activities and haul roads. (APCD, Regulation VIII)</p> <ul style="list-style-type: none"> <li>• Authorization to Construct permit, or waiver, from the San Joaquin Valley Air Pollution Control District (APCD Rule 2010)</li> <li>• Consultations with the U.S. Fish and Wildlife Service/NOAA Fisheries</li> <li>• Encroachment Permit from the California State Lands Commission (Public Resources Code Section 6221)</li> <li>• Conditional Use Permit, or waiver, for mineral extraction operations from the Stanislaus County Community Development Department (Stanislaus County Code Section 21.20.030)</li> </ul>			
<i>Cultural Resources</i>			
<p><u>CULT-01.</u></p> <p>a. All contractors and equipment operators shall be instructed to watch for potential archeological artifacts (including glass pieces, ceramic pieces, square nails and human remains), pursuant to Section 106 of the National Historic Preservation Act. If a potential cultural resource is discovered during the any portion of the activities described for this project, the following provisions will be implemented:</p> <ul style="list-style-type: none"> <li>• The person discovering the cultural resource will notify the professional archaeologist by telephone within 4 hours of the discovery or the next working day if their office is closed. Project Archaeologist: Shelly Davis-King, phone: (209) 928-3443.</li> <li>• When the cultural resource is located outside the area of disturbance, the professional archaeologist will be allowed to photodocument and record the resource and construction activities may continue during this process. The area of disturbance includes grading and vegetation removal, plus 33 feet (10 meters).</li> </ul>	<p>a. Prior to moving equipment on-site, ground disturbance, construction or excavation activities, a pre-construction meeting with contractors, equipment operators and other individuals involved in the project will be conducted to review these project requirements.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>



MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<ul style="list-style-type: none"> <li>• When the cultural resource is located within the area of disturbance, all activities that may impact the resource will cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by the consulting archaeologist may continue. A qualified archaeological professional, such as an archaeologist or an historian, will conduct a survey to evaluate the significance of the cultural resource.</li> <li>• When the cultural resource is determined to not be significant, the qualified professional archaeologist will photodocument and record the resource. Construction activities may resume after authorization from the professional archaeologist</li> <li>• When a resource is determined to be significant, the resource will be avoided with said resource having boundaries established around its perimeter by a qualified professional archaeologist or historian or a cultural resource management plan shall be prepared by a 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 qualified professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the professional archaeologist.</li> </ul>			
<p><u>CULT-02.</u></p> <p>a. If human remains are discovered during subsurface excavations on the project site, work will immediately stop and the County Coroner will be notified. No work will resume until the Coroner has made the necessary determination as to the origin and disposition of the remains, pursuant to Public Resources Code, Section 5097.98 and State Health and Safety Code, Section 7050.5.</p>	<p>a. Prior to moving equipment on-site, ground disturbance, construction or excavation activities, a pre-construction meeting with</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>If the remains are Native American, the coroner must notify the Native American Heritage Commission within 24 hours. The NAHC will immediately notify the Most Likely Descendant (Public Resources Code 5097.98)</p>	<p>contractors, equipment operators and other individuals involved in the project will be conducted to review these project requirements.</p>		
<i>Geology and Soils</i>			
<p><u>GEO-01.</u>  a. Obtain the following permits, authorizations, certifications, or agreements:</p> <ul style="list-style-type: none"> <li>• Authorization under federal Clean Water Act Section 404</li> <li>• A federal Clean Water Act Section 401 Water Quality Certification.</li> <li>• Grading Permit, or waiver, from the Stanislaus County Department of Public Works (Stanislaus County Code Section 16.05.060).</li> <li>• Prepare, submit and secure approval for a Dust Control Plan from the San Joaquin Valley Air Pollution Control District. The Dust Control Plan should include provisions for an on-site watering truck to provide for wetting during gravel processing, extraction activities and haul roads. (APCD, Regulation VIII).</li> </ul>	<p>a. Document the necessary permits, authorizations, certifications, or agreements as listed have been obtained prior to any vegetation removal / ground disturbance.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>
<p><u>GEO-02.</u>  a. Removal of mature trees and shrubs will be limited to areas indicated on the project site plan as necessary to access new gravel bars to be created or enhanced for fish habitat restoration along the river on the project site in accordance with the project site plan (<b>Figures 4&amp;5</b>).</p>	<p>a. Prior to moving any equipment onto the site or commencement of any ground disturbing activities, a pre-construction meeting will be conducted to</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
	<p>brief all contactors and workers on the locations for brush and tree conservation and removal and contact information for the project biologist.</p>		
<p><u>GEO-03.</u></p> <p>a. An erosion and sediment control plan will be implemented to prevent impacts outside of the project construction area.</p> <p>b. Bank, landscape excavation areas, and all other disturbed areas (including road access points to the river used to deposit gravels for enhancement or construction of gravel bars) will be stabilized as soon as possible or by no later than October 15 of the construction year. Stabilization will occur by using tightly woven natural fiber netting or similar material to ensure sensitive wildlife (such as western pond turtles) will not be trapped. No plastic monofilament matting will be used for erosion control.</p> <p>c. Re-vegetation shall be in accordance with the project Re-vegetation Plan (<b>Appendix B</b>). Only certified weed free native grass seed will be used for reseeding.</p>	<p>a. The erosion and sediment control plan will be developed prior to moving any equipment onto the site or commencement of any ground disturbing activities.</p> <p>b. Prior to moving any equipment onto the site or commencement of any ground disturbing activities a pre-construction meeting will be conducted to brief all contactors and workers to review these requirements.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>
<p><i>Hazardous Materials</i></p>			
<p><u>HAZ-01.</u></p> <p>a. The gravel wash water area (for wet-washing) will be located more than 500± feet from the river and include a sediment basin for the collection of all wash water. Wash water will be percolated through the ground in sediment basins to avoid the introduction of mercury into the river.</p>	<p>a. Prior to moving equipment on-site, ground disturbance, construction or excavation activities a</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>Alternatively, if dry-screening is used, it is anticipated that some water will be pumped from the river to implement dust-control measures. Any runoff associated with gravel 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.</p>	<p>pre-construction meeting with contractors, equipment operators and other individuals involved in the project will be conducted to review this project requirement.</p>		
<p><u>HAZ-02.</u>  a. 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).</p>	<p>a. Prior to moving any equipment onto the site or commencement of any ground disturbing activities a pre-construction meeting will be conducted to brief all contractors and workers on the location of the spill response plan and other best management practices and mitigation measures.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>
<p><i>Hydrology and Water Quality</i></p>			
<p><u>HYDRO-01.</u>  a. Implement the following provisions to reduce impacts to water quality:  <ul style="list-style-type: none"> <li>• 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).</li> </ul> </p>	<p>a. Prior to moving any equipment onto the site or commencement of any ground disturbing activities a pre-construction meeting</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>b. Throughout Project Construction:</p> <ul style="list-style-type: none"> <li>• Removal of mature trees and shrubs will be limited to areas indicated on the project site plan as necessary to access new gravel bars to be created or enhanced for fish habitat restoration along the river on the project site in accordance with the project site plan (Figures 4&amp;5)</li> <li>• All gravel processing areas (washing, sorting, screening, stockpiling) will occur a minimum of 500 feet from the river channel.</li> <li>• Storing or washing equipment, vehicles or construction materials will not occur within 500± feet of the river or pond areas.</li> <li>• Equipment refueling and maintenance will occur outside of the floodplain.</li> <li>• Stream crossings and pond crossings will be limited to those areas identified on the project site plan (Figures 4&amp;5).</li> <li>• All gravels shall be cleaned before being placed in the river. For wet-washing, water will be obtained from the river. Runoff from all gravel washing activities will be contained within a sediment basin. Runoff will be allowed to percolate into the ground below the sediment basin. It is anticipated that some water will be pumped from the river even with the use of dry-screening to implement dust-control measures, therefore, this measure is anticipated for either wet-washing or dry-screening gravels.</li> <li>• All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers and removed at least every three days from the project site.</li> </ul>	<p>will be conducted to brief all contactors and workers on the location of the spill response plan, which trees and brush are to be removed / conserved, equipment and materials storage areas, approved stream and pond crossings, and other best management practices and mitigation measures.</p>		
<p><u>HYDRO-02.</u> a. Bank, landscape excavation areas, and all other disturbed areas (including road access points to the river used to deposit gravels for enhancement or construction of gravel</p>	<p>a. Soil stabilization of banks and all disturbed areas will occur prior to</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<p>bars) will be stabilized as soon as possible or by no later than October 15<sup>th</sup> of the construction year. Stabilization will occur by using tightly woven natural fiber netting or similar material to ensure sensitive wildlife (such as western pond turtles) will not be trapped. No plastic monofilament matting will be used for erosion control.</p> <p>b. Re-vegetation shall be in accordance with the project Re-vegetation Plan (<b>Appendix B</b>). Only certified weed free native grass seed will be used for reseeding.</p>	<p>October 15th of the construction year.</p> <p>b. Prior to moving equipment of site, ground disturbance or construction activities; conduct a pre-construction meeting with contractors, equipment operators, and other involved in the project to review this requirement.</p>		
<p><u>HYDRO-03.</u></p> <p>a. Obtain the following permits, authorizations, certifications, or agreements:</p> <ul style="list-style-type: none"> <li>• Authorization under federal Clean Water Act Section 404 (CWA, 404)</li> <li>• A federal Clean Water Act Section 401 Water Quality Certification (CWA 401)</li> <li>• Grading Permit (or waiver) from the Stanislaus County Department of Public Works (Stanislaus County Code Section 16.05.060)</li> <li>• Prepare, submit and secure approval for a Dust Control Plan from the San Joaquin Valley Air Pollution Control District. The Dust Control Plan should include provisions for an on-site watering truck to provide for wetting during gravel processing, extraction activities and haul roads. (APCD, Regulation VIII)</li> </ul>	<p>a. Document the necessary permits, authorizations, certifications, or agreements as listed have been obtained prior to any vegetation removal / ground disturbance.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

MITIGATION MEASURE	TIMING	IMPLEMENTING ENTITY	MONITORING ENTITY
<i>Noise</i>			
<p><u>NOISE-01.</u></p> <p>a. Equipment operation; excavating, screening, gravel cleaning, road construction and gravel bar construction activities are limited to 7:00 a.m. to 7:00 p.m., daily.</p>	<p>a. Prior to moving equipment on-site, ground disturbance, construction or excavation activities a pre-construction meeting with contractors, equipment operators and others involved in the project will be conducted to brief them on the hours of operation.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>
<p><u>NOISE-02.</u></p> <p>a. Secure an Authority to Construct Permit from the San Joaquin Valley Air Pollution Control District (APCD Rule 2010).</p>	<p>a. Document the Authority to construct was obtained prior to moving equipment on site and that the necessary reporting requirements have been satisfied to demonstrate work was conducted consistent with issued authorization for the life of the construction project.</p>	<p>Friends of the Tuolumne</p>	<p>CDFG</p>

## APPENDIX B Revegetation-Rehabilitation Plan

**Phase II Tree Removal:** Is estimated to include 6-8 valley oaks and approximately 36 willows and cottonwoods. Replanting for tree removal is described in the following.

### PHASE II REVEGETATION PLANTING DESCRIPTION AND PLANT LIST

Phase I (completed) re-vegetation noted a significant contribution by natural regeneration when the floodplain surfaces were lowered and made more conducive to seed germination. Revegetation of the Phase 2 restoration will plant a portion of the desired plants and test natural regeneration on a portion for a comparative evaluation over time. Planting plans at Bobcat Flat, Phase II calls for approximately 1,100 willow and cottonwood cuttings. Of the total plants, all will be trees the revegetation will be implemented as part of the larger Bobcat Flat floodplain restoration project overseen by Friends of the Tuolumne, but the revegetation planting description is included here to show compliance with Reclamation Board permit requirements on planting layouts. The trees will be planted to conform to Reclamation Board spacing requirements. Trees will be aligned with the direction of possible flood flowage in rows spaced at least 20 feet apart and planted approximately 15 feet on center. Plants will be placed in areas where conditions are appropriate for the species and in groupings to form plant communities. No planting will be done within the side channel or any existing scour channel or on its slopes such that overall flood conveyance should be improved.

#### Plant list

Trees:	Approximate Number
Arroyo Willow ( <i>Salix lasiolepis</i> )	220
Goodings willow ( <i>Salix goodingii</i> var. <i>variabilis</i> )	220
Fremont Cottonwood ( <i>Populus fremontii</i> )	220
Red Willow ( <i>Salix laevigata</i> )	220
Yellow Tree Willow ( <i>Salix lucida</i> var. <i>lasianдра</i> )	220
Valley oak ( <i>Quercus lobata</i> )	18-40/a/

/a/ Valley oak replanting will be at a ratio of 3:1 for removed oak trees 3"-5" dbh and 5:1 for those oak trees removed that are more than 5" dbh.