

**Appendix B**  
**Mitigation Monitoring and Reporting Plan**

**Mitigation Monitoring and Reporting Program (MMRP)**  
**for the**  
**East Sand Slough Side Channel Project**

**Proposed Mitigation Measures:** A set of formally established Mitigation Measures have been developed for the East Sand Slough Side Channel Project. As the lead agency under CEQA, the RCDTC (or a monitor designated by the RCDTC) is required to monitor the Project to ensure that the required mitigation measures are implemented during construction and maintenance. The RCDTC will be responsible for ensuring full compliance with the provisions of the MMRP and has primary responsibility for its implementation. The purpose of the MMRP is to document that the mitigation measures required and adopted by the RCDTC are implemented, and that mitigated environmental impacts are reduced to less than significant levels, as identified in the certified MND.

**Table 1** summarizes the established mitigation measures by environmental resource. **Table 1** also includes the implementation schedule for each measure and the entity responsible for implementing each measure. The RCDTC (or a monitor designated by the RCDTC) will be responsible for monitoring implementation of all mitigation measures.

**Table 1. Mitigation Monitoring and Reporting Program for the East Sand Slough Side Channel Project.**

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<b>Air Quality</b>				
<p><b>AQ-1: Implement Fugitive Dust Control Measures.</b>                      The Project Contractor shall demonstrate compliance with this measure during construction through the submission of weekly monitoring reports to the RCDTC Project Manager. RCDTC personnel shall monitor the application of dust control measures by the Contractor at least once a week on an ongoing basis during all phases of construction and maintain a monitoring log in the project files. In the event monitoring indicates that in-place measures do not adequately control dust, the RCDTC Project Manager shall take necessary steps to assure the Contractor's adequate control of project-related dust. The following provisions shall apply to monitoring and control of dust at spoil sites, access roads, and staging areas:</p> <ul style="list-style-type: none"> <li>• 'Reasonably Available Control Measures', as defined by the TCAPCD, shall be implemented for each fugitive dust source type, as defined in Table I, Page 4:24-3 of the TCAPCD air quality regulations.</li> <li>• Traffic and equipment speeds on all unpaved surfaces shall be reduced to 15 miles per hour or less, and unnecessary vehicle traffic shall be reduced by restricting access.</li> <li>• Hauling of spoil material outside of the project area shall be limited to Monday through Friday, except holidays, from 7 am to 7 pm.</li> <li>• All routes used to access staging areas, areas of excavation, and spoil sites shall be watered at a sufficient concentration and frequency to maintain a stabilized surface when project-related equipment is operating in those areas during dry periods. The RCDTC Project Manager or Contractor (if assigned by RCDTC Project Manager) shall monitor for dust generation and shall ensure that impacted surfaces are watered when airborne dust is being transported outside of the project area. The RCDTC Project Manager or Contractor shall ensure that dust control measures are implemented in the vicinity of any elderberry shrub within 100 feet of construction activities.</li> <li>• The RCDTC shall apply for a TCAPD Fugitive Dust Permit and assure that all Contractor personnel adhere to all permit provisions, along with all other requirements of the TCAPCD.</li> </ul>	During project construction	Construction contractor	RCDTC to verify implementation through onsite monitoring. Construction contractor shall submit weekly monitoring reports to the RCDTC Project Manager.	

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<p><b>AQ-2: Control Construction Equipment Exhaust</b></p> <ul style="list-style-type: none"> <li>All construction equipment shall be maintained in proper tune according to manufacturer's specifications. Maintenance, repair, and tuning reports for equipment shall be prepared by the Contractor and provided when requested by the RCDTC Project Manager. Tuning reports prepared for the RCDTC shall be submitted to:</li> </ul> <p>Resource Conservation District of Tehama County Attn: Jon Barrett 2 Sutter Street, Suite D Red Bluff, CA 96080</p> <ul style="list-style-type: none"> <li>To the extent feasible, the use of diesel construction equipment meeting current CARB certification standards for off-road heavy-duty diesel engines shall be maximized.</li> <li>Unnecessary vehicle idling shall be restricted to 5 minutes or less.</li> </ul>	Prior to and during construction	Construction contractor	Construction contractor shall provide maintenance, repair, and tuning reports to the RCDTC upon request.	
<p><b>AQ-3: Register Heavy Equipment</b></p> <ul style="list-style-type: none"> <li>All off-road heavy-duty diesel equipment greater than 50 horsepower used in execution of the Project shall be registered with the Air Resources Board's Diesel Off-Road Online Reporting System (DOORS) and meet all applicable standards for replacement and/or retrofit.</li> <li>All portable equipment used in the execution of Project construction, including generators and air compressors rated over 50 brake horsepower, shall be registered in the Portable Equipment Registration Program or permitted through the TCAPCD.</li> </ul>	Prior to construction	Construction contractor	Construction contractor shall verify equipment registration through documentation.	
<b>Biological Resources</b>				
<p><b>BIO-1: Implement General Measures to Protect Special-Status Species</b></p> <p>The following measures shall be implemented and enforced during all project construction activities to avoid or minimize adverse effects on candidate, sensitive, and special-status species.</p> <ul style="list-style-type: none"> <li><i>General measures:</i> No pets of any kind shall be permitted on the construction sites. No firearms (except for federal, State, or local law enforcement officers and security personnel)</li> </ul>	Prior to and during construction	RCDTC, Construction contractor	RCDTC to consult with CDFW, USFWS, and permitting entities as appropriate; RCDTC to verify	

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<p>would be permitted on the construction site.</p> <p><i>Fencing:</i> All sensitive areas to be avoided during construction activities shall be fenced and/or flagged as close to construction limits as feasible.</p> <ul style="list-style-type: none"> <li>• <i>Construction monitoring:</i> A qualified biologist shall monitor the construction area at project-appropriate intervals to assure Contractor implementation and adherence with all established resource impact avoidance/minimization measures. The amount and duration of monitoring shall depend upon project specifics and shall be based upon consultation with CDFW, USFWS, and permitting entities.</li> <li>• <i>Worker awareness training:</i> Before any construction begins, a qualified biologist and the RCDTC Project Manager shall conduct a mandatory training session for all construction crew personnel. The training shall include a discussion of the sensitive biological resources, including the valley elderberry longhorn beetle and its elderberry host plant, within the Project area and the potential presence of special-status species. Special-status species habitat protection measures (including Best Management Practices, Mitigation Measures, permit requirements, and other site-specific requirements established by the RCDTC Project Manager or agency personnel) shall also be discussed along with the extent of project boundaries to ensure such species are not impacted by project activities. The training and any supporting materials shall include a discussion of penalties for noncompliance. Upon completion of training, construction personnel shall sign a form stating that they have attended the training and understand all the conservation measures. Training shall be conducted in English and other languages, as appropriate. Proof of this instruction (signed forms) shall be kept on file with Contractor and the RCDTC, who shall provide a copy (as requested) to USFWS and permitting entities, along with a copy of the training materials.</li> <li>• <i>Litter Control:</i> A litter control program shall be instituted. The contractor shall provide closed garbage containers for the disposal of all food-related trash items. All garbage shall be removed daily.</li> <li>• <i>Delineation of Project boundary:</i> Project boundaries shall be clearly marked on final project design drawings with work confined within those boundaries. Prior to construction, the Project Contractor and RCDTC Project Manager shall meet on site to agree upon and flag boundaries of sensitive areas, particularly those within riparian areas.</li> </ul>			implementation through onsite monitoring.	

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<ul style="list-style-type: none"> <li><i>Relocation of special-status species:</i> If a special-status species enters a work area, the Project Contractor shall contact the RCDTC Project Manager for further guidance. In such instances the RCDTC Project Managers shall contact appropriate State and/or federal regulatory agencies for guidance. If a federal or State- listed species or any other special-status species enters the work area, the species shall not be captured or handled without permission from the appropriate agency (State listed – CDFW; Federally listed – USFWS) as conveyed to the Project Contractor by the RCDTC. Construction activities shall cease until it is determined that the species shall not be harmed or that it has left the construction area on its own.</li> </ul>				
<p><b>BIO-2: Implement Specific Mitigation and Avoidance Measures for Fish</b> To reduce the potential for impacts to fish species during project implementation, the following measures shall be employed.</p> <ul style="list-style-type: none"> <li>Work windows shall be restricted to October 1 to March 1 for any channel with flowing water. Work in areas separated from the main channel by gravel berms that are naturally present or artificially created may occur outside this window, as long as other environmental work is in compliance with related work windows.</li> <li>Heavy equipment operation practices that minimize the potential for injury or death of listed aquatic species' vulnerable life stages shall include alerting fish to equipment operation in the channel before gravel is placed in watered areas (e.g., slow, deliberate equipment operation and tapping water surface prior to entering in place or newly developed slough channels).</li> <li>Work within watered areas shall only occur for up to 12 hours per day to allow a 12-hour window of time for fish to migrate through without noise disturbance.</li> <li>In-river work with heavy equipment shall be completed during timing windows designed to have the lowest potential to adversely affect salmonids and sturgeon. Where feasible (i.e. in most side channel areas), the work area shall be separated from the river by gravel berms or other methods to prevent fish from entering the work area.</li> </ul>	During construction and maintenance	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring. RCDTC to consult with CDFW or NMFS as appropriate.	

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<ul style="list-style-type: none"> <li>Any work with the potential to affect listed salmonids shall require consultation with CDFW and/or NMFS. Such work shall also be implemented according to the requirements of all appropriate permits or other authorizations.</li> </ul>				
<p><b>BIO-3: Implement Specific Protection Measures for Chinook Salmon</b>  Within one week prior to construction, the RCDTC Project Manager or designated qualified biologist shall coordinate with CDFW to determine if salmon are spawning in the Sacramento River at that time. If so, the RCDTC shall obtain real-time aerial or boat redd survey data from CDFW, if available. A qualified biologist shall perform pre-construction surveys the day prior to construction; if redds from listed species are present within 200 feet downstream of the Project area the RCDTC Project Manager or designated qualified biologist shall contact NMFS with an impact minimization plan to be approved by NMFS personnel prior to final approval of project implementation.</p>	Prior to and during construction and maintenance	RCDTC	RCDTC to coordinate with CDFW and verify implementation through onsite monitoring.	
<p><b>BIO-4: Implement Specific Protection Measures for the Western Pond Turtle</b>  If a western pond turtle is observed in the Project area during construction activities, the Contractor shall temporarily halt construction until it is determined that the turtle will not be harmed or until the turtle has moved to a safe location outside of the construction limits. The Contractor shall inform the RCDTC Project Manager of such occurrences. If construction is to occur during the nesting season (late June - July), a pre-construction survey for turtles and nest sites shall be conducted by a qualified biologist. This survey shall be conducted within 660 feet of the Project area no more than 2 days prior to the start of construction or restoration activities in suitable habitat. If a pond turtle nest is found, the biologist shall flag the site and determine whether construction activities can avoid affecting the nest. If the nest cannot be avoided, in consultation with CDFW, a no-disturbance buffer zone may be established around the nest until the young have left the nest. If weather conditions prevent implementation of construction for more than 2 days after completion of turtle surveys, resurvey for this species shall be completed.</p>	During construction and maintenance	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring. RCDTC to consult with CDFW as appropriate.	
<p><b>BIO-5: Implement General Protection Measures for Birds</b>  To reduce the potential for impacts to bird species resulting from project implementation, the following protection measures shall be implemented:</p>	During construction and maintenance	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring. RCDTC	

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<ul style="list-style-type: none"> <li>• Nationwide Standard Conservation Measures shall be employed (USFWS 2018b)</li> <li>• Vegetation removal shall not occur during the peak bird breeding season, typically between March 1 and August 31.</li> <li>• In order to protect potential nesting habitat, only the minimum number of trees required to satisfy the proposed Project design shall be removed or trimmed during project implementation. Trees larger than 10” in diameter shall not be removed unless retaining such trees shall prevent project implementation or are a safety hazard as determined by the RCDTC Project Manager. If such trees are identified by the Contractor, approval of such removal shall be obtained from the RCDTC Project Manager which shall be based upon guidance provided by appropriate State/federal regulatory agency personnel.</li> <li>• If construction activity inadvertently results in take of individual birds or their nests, appropriate mitigation shall be determined by the RCDTC Project Manager in coordination with CDFW.</li> <li>• Vehicle speed limits shall not exceed 15 MPH to avoid striking birds.</li> </ul>			to consult with CDFW as appropriate.	
<p><b>BIO-6: Conduct Pre-Construction Surveys for Nesting Migratory Bird Treaty Act Species</b>  For migratory birds, a qualified biologist shall conduct a pre-construction survey no more than one week prior to commencement of construction or restoration activities scheduled between March 1 and August 31. The pre-construction survey shall be used to determine if active nests of these species are present in or within 250 feet of where construction activities take place. If an active nest is found, a qualified biologist in consultation with CDFW and/or USFWS shall determine the extent of a No-Treatment Buffer Zone to be established around the nest. If establishing a buffer zone is not feasible, a qualified biologist shall consult with CDFW and/or USFWS for guidance to minimize impacts. If no active nests are identified, no further mitigation is necessary.</p>	Prior to and during construction and maintenance	RCDTC	RCDTC to verify implementation through onsite monitoring. RCDTC to consult with CDFW or USFWS as appropriate.	
<p><b>BIO-7: Conduct Pre-Construction Surveys for Nesting Raptors, including the White-Tailed Kite</b>  A qualified biologist shall conduct a pre-construction surveys in all suitable upland and riparian habitat for common raptors. Surveys shall occur no more than one week prior to commencement of construction or restoration activities scheduled between February 1 and August 31. In addition to areas where project construction will occur, these surveys shall be conducted along proposed</p>	Prior to and during construction and maintenance	RCDTC	RCDTC to verify implementation through onsite monitoring. RCDTC to consult with	



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<p>access roads and within the equipment staging area and spoil disposal sites. Surveys shall include examination of nests for raptor activity, visual searches for whitewash, listening for calls and any other evidence of nesting raptors within the Project area.</p> <p>If an active nest is found, a qualified biologist, in consultation with CDFW, shall determine a No-Treatment Buffer to be established around the nest until the young have fledged. In consultation with CDFW, a plan shall be developed to monitor whether construction activity is disturbing the reproductive process and to determine when the young have fledged. If no active nests are identified, no further mitigation is necessary.</p> <p>Modifications and possible reduction in “No Treatment Buffer” sizes for both Listed and Non-Listed Raptors may be made after consultation by the RCDTC Project Manager with the CDFW and/or USFWS personnel as appropriate.</p>			CDFW as appropriate.	
<p><b>BIO-8: Implement Specific Protection Measures for Swainson’s Hawk</b>  A qualified biologist shall conduct a pre-construction survey of accessible areas within a 0.25-mile radius of the Project area between March 1 and September 15; the required survey radius may be reduced (on a case-by-case basis) if approved in advance by CDFW, but in no case will be less than 500 feet. At least one survey shall be conducted no more than one week prior to the initiation of construction activities. If no active nests are located, no further measures are necessary to avoid impacts to active Swainson's hawk nests. If active nests are identified, the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• A no-disturbance buffer zone shall be established around the nest site. The width of the buffer zone shall be determined by a qualified biologist in coordination with CDFW. Determination of the required width of the buffer zone shall consider the distance of the nest site from construction activities, the line of sight from the nest site to construction activities, the existing level of disturbance, and other factors established with CDFW on a case-by-case basis.</li> <li>• A qualified biologist shall monitor active nests within 500 feet (or the width of the buffer zone) of construction activities. The first monitoring event shall coincide with the initial implementation of construction activities and monitoring shall continue continuously for the</li> </ul>	Prior to and during construction and maintenance	RCDTC	RCDTC to verify implementation through onsite monitoring. RCDTC to consult with CDFW as appropriate.	

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<p>duration of construction activities, or any other activities that may impact nesting success, until the young have fledged. If the biologist determines that construction activities are causing the birds to exhibit distress and/or abnormal nesting behavior or reproductive failure (nest abandonment and loss of eggs and/or young) is possible, the biologist shall halt work immediately and notify CDFW. Measures to avoid nest failure shall be implemented in coordination with CDFW and may include halting some or all construction activities until the young have fledged. For monitored nest sites, a monitoring report shall be submitted to CDFW within 2 weeks after termination of monitoring activities.</p>				
<p><b>BIO-9: Implement Specific Protection Measures for Burrowing Owls</b>  A qualified biologist shall conduct a pre-construction survey no less than 14 days prior to initiating ground disturbance activities. If positive owl presence is found, the following avoidance and mitigation measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• Place visible markers near burrows to ensure that construction equipment or vehicles do not collapse burrows.</li> <li>• Avoid disturbing occupied burrows during the nesting period, from February 1 through August 31.</li> <li>• Avoid impacting burrows occupied during the non-breeding season by migratory or non-migratory resident burrowing owls.</li> <li>• A no-disturbance buffer shall be established surrounding occupied burrows. The width of the buffer shall be established in consultation with the Department and will take into account time of year and level of disturbance in proximity to the burrow site.</li> </ul>	<p>Prior to and during construction</p>	<p>RCBTC</p>	<p>RCBTC to verify implementation through onsite monitoring.</p>	

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<p><b>BIO-10: Implement Specific Protection Measures for the Bald Eagle</b>  A qualified biologist shall conduct a pre-construction survey no more than one week prior to initiating ground disturbance activities. If an active bald eagle nest is found within 0.5 mile of the Project area, the following avoidance and mitigation measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• Construction activities located within 0.5 mile of a known bald eagle nest shall occur between September 1 and December 31.</li> <li>• If construction activities are to occur outside of this period, a 660-foot buffer around the nest would be maintained for a single construction activity visible from the nest and within one mile of the nest (USFWS 2007).</li> <li>• If established, the construction buffer shall remain in place until after the nesting season, or until the biologist determines that the young have fledged during subsequent surveys.</li> </ul>	Prior to and during construction and maintenance	RCDTC	RCDTC to verify implementation through onsite monitoring.	
<p><b>BIO-11: Implement Specific Protection Measures for Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>)</b>  The following protection measures (United States Fish and Wildlife Service 2017; United States Bureau of Reclamation 2016) shall be implemented to protect valley elderberry longhorn beetles and their host plant, the elderberry shrub, if elderberry shrubs occur on or within 50 meters (165 feet) of the Project area:</p> <ul style="list-style-type: none"> <li>• During Project implementation, no elderberry shrubs shall be removed.</li> <li>• For activities that have the potential to damage or kill an elderberry shrub (e.g. trenching, paving, spoiling), an avoidance area shall be established at least 6 meters (20 feet) from the elderberry shrub's drip-line.</li> <li>• As feasible, all Project-related activities that could occur within 50 meters (165 feet) of an elderberry shrub shall be conducted outside of the flight season of the valley elderberry longhorn beetle (March - July).</li> <li>• To avoid and minimize adverse effects to valley elderberry longhorn beetle during trimming operations, all elderberry shrub trimming activities shall occur between November and February. Such trimming shall avoid the removal of any branches or stems that are <math>\geq 1</math> inch</li> </ul>	Prior to and during construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring. RCDTC to consult with USFWS as appropriate.	

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<p>in diameter. Measures to address regular and/or large-scale maintenance (trimming) shall be established as required in consultation with USFWS.</p> <ul style="list-style-type: none"> <li>• Herbicides shall not be used within the drip-line of the any elderberry shrub. Insecticides shall not be used within 30 meters (98 feet) of an elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method.</li> <li>• Temporary stockpiling of excavated material shall occur only in approved construction material staging areas created more than 20 feet from elderberry shrub drip-lines. Excess excavated soil shall be used on site or disposed of at a regional landfill or other appropriate area.</li> <li>• Mechanical weed removal within the drip-line of the elderberry shrub shall be limited to the season when adult elderberry longhorn beetles are not active (August - February) and will avoid damaging the elderberry shrub.</li> </ul> <p>Construction personnel shall ensure that dust control measures (e.g., watering) are implemented in the vicinity of any elderberry shrub within 100 feet of construction activities. To avoid affecting the valley elderberry longhorn beetle, dirt roads within 100 feet of elderberry shrubs shall be watered at least twice each day when being used by gravel trucks and other project-related vehicles during dry periods.</p>				

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<p><b>BIO-12: Implement Protective Measures During Removal of Trees That Provide Suitable Bat Roosting Habitat.</b></p> <p>All removal of trees that provide suitable bat roosting (such as trees with deep bark crevices, snags, or holes) shall be conducted between August 31 and October 30, or earlier than October 30 if evening temperatures fall below 45 degrees Fahrenheit and/or more than a half inch of rainfall occurs within 24 hours. These dates correspond to the time period when bats would not be caring for non-volant young and have not yet entered torpor. A qualified biologist shall monitor removal/trimming of trees that provide suitable bat roosting habitat. Tree removal/trimming shall occur over two consecutive days. On the first day in the afternoon, limbs and branches shall be removed using chainsaws only. Limbs with cavities, crevices, or deep bark fissures shall be avoided, and only branches or limbs without those features shall be removed. On the second day, the entire tree shall be removed. Prior to tree removal/trimming, each tree shall be shaken gently and several minutes shall pass before felling trees or limbs to allow bats time to arouse and leave the tree. The biologist shall search downed vegetation for dead or injured bat species and report any dead or injured special-status bat species to CDFW.</p>	During construction and maintenance	RCDTC	RCDTC to verify implementation through onsite monitoring. RCDTC to consult with CDFW as appropriate.	
<p><b>BIO-13: Implement Bat Protection Measures during Construction Activities Under or Within 100 Feet of the Antelope Boulevard/Highway 36 Bridge</b></p> <p>Construction activities associated with relocation of the utility lines, bridge protection, and channel excavation under or within 100 feet of the Antelope Boulevard/Highway 36 Bridge shall not occur from April 15 through August 31 to avoid impacts to roosting bats during the bat maternity season (non-volant period for young) or after October 30 (or earlier than October 30 if evening temperatures fall below 45 degrees Fahrenheit and/or more than a half inch of rainfall occurs within 24 hours) to avoid impacts to hibernating bats.</p> <p>If construction activities must be conducted within 100 feet of the Antelope Boulevard/Highway 36 Bridge during the maternity season, a qualified biologist shall conduct pre-construction surveys for active maternity roosts within 48 hours prior to the start of proposed construction activities. If there is a lapse in construction activities of two weeks or greater, the area shall be resurveyed within 48 hours prior to recommencement of work. If a bat maternity roost is located, appropriate buffers</p>	During construction	RCDTC	RCDTC to verify implementation through onsite monitoring.	

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around the roost sites shall be determined in consultation with CDFW and implemented to avoid abandonment of the roost. The size of the buffer shall depend on the species, roost location, and specific construction activities to be performed in the vicinity. No project activity shall commence within the buffer areas until the end of the pupping season (which typically ends August 31) or until a qualified biologist confirms the maternity roost is no longer active.				
<p><b>BIO-14: Prevent the Introduction of Invasive Plant Species</b>  The Contractor shall implement the following best management practices, to the extent feasible, to prevent the introduction of invasive plant species:</p> <ul style="list-style-type: none"> <li>• Construction equipment shall be washed prior to entering the Project area.</li> <li>• If straw bales or other vegetative materials are used for erosion control, they shall be certified weed free.</li> <li>• All re-vegetation materials (e.g., mulches, seed mixtures) shall be certified weed free and come from locally adapted native plant materials, to the extent practicable.</li> </ul>	Prior to and during construction and maintenance	Construction contractor	RCBTC to verify implementation through onsite monitoring.	
<p><b>WQ-1: Prepare and Implement a Stormwater Pollution Prevention Plan</b>  Refer to the 'Hydrology and Water Quality' mitigation measure section.</p>	-	-	-	-
<p><b>WQ-2: Conduct Turbidity Monitoring</b>  Refer to the 'Hydrology and Water Quality' mitigation measure section.</p>	-	-	-	-
<p><b>HAZ-1: Develop and Implement a Spill Prevention Containment and Countermeasures Plan</b>  Refer to the 'Hazards and Hazardous Materials' mitigation measure section.</p>	-	-	-	-
<p><b>HAZ-2: Prepare and Implement an Herbicide Use Plan</b>  Refer to the 'Hazards and Hazardous Materials' mitigation measure section.</p>	-	-	-	-
<b>Cultural Resources</b>				

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<p><b>CUL-1: Protect Newly Discovered Archeological, Prehistoric, or Historic Resources</b>            If proposed Project construction exposes previously unknown archeological, prehistoric, or historic resources within the Project area the site shall be avoided. Work may continue elsewhere within the Project area. Exposed cultural resources shall be appropriately flagged by the RCDTC Project Manager or a professional archeologist in order to immediately establish a “No Treatment Buffer” of at least 100 feet. Reclamation Cultural Resource staff would be notified and consulted on how to proceed. Reclamation would follow the procedures for post-review discoveries on Federal lands as described in the regulations at 36 CFR § 800.13. The provisions of this measure shall apply to all ground-disturbing activities associated with channel excavation, access roads, the equipment staging area, and spoil disposal sites. Work may not continue in the area of the discovery until Reclamation issues a notice to proceed.</p>	During construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring. RCDTC to notify Reclamation Cultural Resource staff as appropriate.	
<p><b>CUL-2: Implement Appropriate Procedures for the Treatment of Human Remains</b>            If during the execution of proposed construction human remains are found, the RCDTC Project Manager, or Contractor after having informed the RCDTC Project Manager of such findings, shall halt work at that location and Reclamation’s Regional Archaeologist shall be notified immediately. Notification shall be followed by a written report within 48 hours. The professional archeologist shall then assess the significance of the remains, process them and immediately notify the Tehama County Coroner pursuant to Health and Human Safety Code Section 7050.5. As required by PRC Section 5097, if the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) and Native American groups at the discretion of the professional archaeologist shall be notified within 24 hours of such determination. The professional archaeologist shall adhere to the guidelines of the NAHC in the treatment and disposition of the remains. Findings of significance shall be prepared and submitted to appropriate agencies at the discretion of the professional archaeologist. Findings shall also be recorded (as appropriate) in the Project Files by the RCDTC Project Manager. Project construction may continue in other portions of the Project area. Note that all human remains identified on lands owned by the Federal government are subject to the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001). The procedures for the treatment of human remains on Federal lands are described in the regulations that implement NAGPRA, found at 43 CFR § 10.</p>	During construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring. RCDTC to notify Reclamation Cultural Resource staff as appropriate.	

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Project implementation in the vicinity of the discovery shall not resume until Reclamation complies with the 43 CFR § 10 regulations and provides notification to proceed.				
<b>Hazards and Hazardous Materials</b>				
<p><b>HAZ-1: Develop and Implement a Spill Prevention Containment and Countermeasures Plan</b> To reduce potential impacts associated with fuel spills in streams and riparian areas, the contractor shall develop, and the RCDTC Project Manager shall enforce, a <b>Spill Prevention Containment and Countermeasures Plan (SPCCP)</b>. The Project Contractor shall assure that spill prevention and cleanup kits are maintained in close proximity to construction areas. Contractor supplied workers and RCDTC personnel involved with Project construction shall be trained in the use of spill containment kits by the RCDTC Project Manager. The Contractor shall ensure that gasoline and lubricants are at no time transported across a live stream other than in the tank of equipment being moved or already applied to such equipment. Only pre-established roads shall be used to move personnel, equipment, and materials into and out of the Project area unless previously approved by the RCDTC Project Manager. The following would also be conditions of the SPCCP:</p> <ul style="list-style-type: none"> <li>• Standard precautions shall be employed by construction personnel to prevent the accidental release of fuel, oil, lubricant or other hazardous materials.</li> <li>• Construction equipment refueling, regular maintenance, and equipment storage shall be restricted to designated staging areas located away from streams and sensitive habitats (at least 50' from waterbodies). The RCDTC Project Manager or Contractor shall inspect refueling areas to verify these sites' adequacy in protecting riparian and terrestrial resources as well as the availability of containment equipment.</li> <li>• Fuel containment equipment including absorbent sheets and wattles shall be made available by the Project Contractor at all refueling and maintenance areas.</li> <li>• Major vehicle maintenance and washing shall be conducted off site.</li> <li>• All spent fluids including motor oil, radiator coolant, or other fluids along with used vehicle batteries shall be collected, stored, and recycled as hazardous waste off site.</li> </ul>	Prior to and during construction and maintenance	RCDTC, construction contractor	RCDTC to develop plan and verify implementation through onsite monitoring. Construction contractor to submit daily inspection reports to the RCDTC.	



Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<ul style="list-style-type: none"> <li>• Dry cleanup methods (i.e. absorbent materials, dry sweep, and/or rags) shall be used whenever possible.</li> <li>• Spilled dry materials shall be swept up immediately.</li> <li>• Project Contractor personnel shall make daily inspections of all equipment for leaks (e.g. cracked hoses, loose filling caps, stripped drain plugs) of oil, fuel, herbicide and other hazardous materials.</li> <li>• All leaks found during such inspections shall be repaired prior to use within any portion of the project area.</li> <li>• External occurrences of fuel, oil, grease and herbicide shall be removed by hand prior to the start of daily operation.</li> </ul> <p>Inspection reports related to daily inspections shall be submitted to: <b>Resource Conservation District of Tehama County, Attn: Jon Barrett, 2 Sutter Street Suite D, Red Bluff, CA 96080.</b> The results of these inspections reports shall be incorporated into the RCDTC project files along with evidence of any repairs required and completed before returning equipment to project work sites.</p>				
<p><b>HAZ-2: Prepare and Implement an Herbicide Use Plan</b>  To ensure the proper transport, storage, mixing, loading, application, and disposal of herbicides used within the Project area, the RCDTC Project Manager shall develop and enforce an <b>Herbicide Use Plan</b>. The Herbicide Use Plan shall include, but not be limited to, the following measures:</p> <ul style="list-style-type: none"> <li>• Landowners and residents shall be informed in writing as to the date when herbicides shall be applied on particular properties. This notification shall provide information regarding the chemicals to be used and Mitigation Measures developed to reduce environmental impacts. The notification shall recommend that all persons and animals stay out of treatment areas for a specified period of time.</li> <li>• Prior to and during herbicide applications, signs shall be posited along access points to minimize potential exposure by the public.</li> <li>• All applications of herbicide shall be done by a Qualified Licensed Applicator and under the</li> </ul>	Prior to and during construction	RCDTC, construction contractor	RCDTC to develop plan and verify implementation through onsite monitoring.	

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<p>supervision of a Licensed Pest Control Advisor in accordance with applicable, federal, state, and local laws or guidelines. All applicators shall have been trained to safely handle and apply herbicides per State of California regulations as well as those of the Tehama County Department of Agriculture.</p> <ul style="list-style-type: none"> <li>• All workers involved with herbicide applications shall wear appropriate protective clothing and related safety equipment (masks, gloves, etc.) as per the guidelines of the California Department of Industrial Relations Division of Occupational Safety and Health and those of the manufacturer.</li> <li>• Clean soap and water shall be readily available on site for the purpose of emergency washing. Wash stations shall be located away from any natural waterway to avoid contamination of waterways and ponds in the area.</li> <li>• Dependable radios or phone communication shall be available on site to report any emergency that may occur.</li> <li>• No herbicide applications shall take place when wind velocity is less than two (2) miles per hour or exceeds ten (10) miles per hour or when there is greater than a thirty percent (30%) forecast of rain within six (6) hours of treatments. Wind speeds shall be monitored hourly.</li> <li>• Herbicide applicators shall avoid spraying wildlife observed in herbicide treatment areas. Areas not sprayed due to the presence of wildlife may be sprayed once wildlife has left the site of application. Those areas suspected of containing occupied nesting or denning habitats shall also be avoided and not treated until wildlife have left the area.</li> <li>• Herbicide treatments shall occur outside the breeding period of all special-status species. Any special-status wildlife species that may be found during herbicide application shall be moved to a safe location under directives obtained from CDFW. Personnel conducting vegetation treatments or herbicide applications shall search for and relocate special-status species that may be under vegetation prior to any herbicide applications. Personnel involved with the movement of wildlife shall not handle chemicals.</li> <li>• The RCDTC Project Manager or Contractor (as permitted by the RCDTC Project Manager) shall assure that no mixed herbicides or other chemicals are transported across flowing water at any time. Only unmixed herbicides and related chemicals in their original sealed containers shall be allowed transport over flowing water.</li> </ul>				

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<ul style="list-style-type: none"> <li>A suitable stain or dye shall be incorporated into the herbicide prior to application to increase applicator accuracy, avoid missed vegetation and overspray as well as to indicate personal exposure to herbicides.</li> </ul>				
<p><b>HAZ-3: Maintain Fire Protection Equipment Onsite during Project Construction</b>  To reduce impacts associated with exposure of people or structures to wildland fires, the RCDTC Project Manager or Project Contractor Representative shall ensure that adequate fire protection equipment is available at work sites. This shall include fire extinguishers attached to all mechanized equipment. Firefighting hand tools shall be made available at all areas where equipment is operated. The RCDTC Project Manager and Project Contractor shall comply with all applicable fire safe standards as found in Public Resources Code Division 4, Chapter 6, (PRC's 4427, 4428, 4429, 4431, 4442, list not all inclusive). Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire. Only appropriately Certified Pesticide Applicators who are trained in wildfire prevention and suppression shall be used in the execution of Project construction. All motorized equipment shall have approved spark arrestors.</p>	Prior to and during construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring.	
<b>Hydrology and Water Quality</b>				
<p><b>WQ-1: Prepare and Implement a Stormwater Pollution Prevention Plan</b>  A stormwater pollution prevention plan (SWPPP) shall be prepared by the Contractor prior to the start of construction activities. BMPs incorporated into the SWPPP shall be site-specific and shall be prepared consistent with the RWQCB field manual. The SWPPP shall include, but not be limited to, the following standard BMPs:</p> <ul style="list-style-type: none"> <li>The construction contractor shall minimize ground disturbance and the disturbance/destruction of existing vegetation. This shall be accomplished, in part, through establishing designated equipment staging areas, ingress and egress corridors, equipment exclusion zones prior to the commencement of any grading operations, and protection of existing trees.</li> <li>Equipment and materials shall be staged in designated staging areas.</li> </ul>	Prior to and during construction	RCDTC, construction contractor	RCDTC to develop plan and verify implementation through onsite monitoring. RCDTC will consult with the CVRWQCB.	

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
Disturbed soils within the Project area shall be stabilized to reduce erosion potential both during and following construction. Finer sediment spoils material shall be hydroseeded. Where larger gravels and cobbles are intermixed with fine sediments, the material shall be rinsed when Project construction is complete. Where appropriate, planting, seeding with native species, and mulching may be used as feasible. Where suitable vegetation cannot reasonably be expected to become established, non-erodible material would be used for such stabilization.				
<b>WQ-2: Conduct Turbidity Monitoring</b> Turbidity and settleable solids shall be monitored during instream work to maintain compliance with U.S. Army Corps of Engineers Section 404 and SWRCB 401 permit requirements. If turbidity exceeds permit criteria, construction would be slowed or stopped until turbidity is within permitted levels.	Prior to and during construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring. RCDTC will consult with the CVRWQCB.	
<b>HAZ-1: Develop and Implement a Spill Prevention Containment and Countermeasures Plan</b> Refer to the 'Hazards and Hazardous Materials' mitigation measure section.	-	-	-	-
<b>HAZ-2: Prepare and Implement an Herbicide Use Plan:</b> Refer to the 'Hazards and Hazardous Materials' mitigation measure section.	-	-	-	-
<b>Noise</b>				
<b>NOISE-1: Implement General Noise Protection and Reduction Measures</b> <ul style="list-style-type: none"> <li>• Equipment not in use shall not be left idling for more than 5 minutes.</li> <li>• All noise producing equipment shall be equipped with noise control devices such as mufflers, in accordance with manufacturers' specifications and shall be maintained in proper operating condition.</li> <li>• Transportation routes shall be coordinated, and equipment arranged to minimize disturbance to noise-sensitive uses.</li> </ul>	During construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring.	

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<ul style="list-style-type: none"> <li>The RCDTC Project Manager shall appoint a disturbance coordinator who shall respond to all public complaints.</li> </ul>				
<p><b>NOISE-2: Limit Period of Operation</b>  All project construction activities entailing the use of mechanical equipment or engines, including mechanical hand tools, shall be conducted between the hours of 7 AM to 7 PM (or as otherwise established in the City or Red Bluff General Plan) when construction activities occur within 500 feet of a residential or other noise-sensitive land uses. Off-site hauling of spoil material shall be limited to weekdays, with the exception of holidays.</p>	During construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring.	
<p><b>NOISE-3: Coordinate with Adjacent Residences to Minimize Noise Disturbance</b>  The RCD of Tehama County Project Manager shall work with the Project Contractor and adjacent residents to develop additional reasonable measures to minimize disturbance of occupied residences. Before implementation of construction activities near noise-sensitive receptors, the RCDTC shall provide written notification to potentially affected receptors identifying the type, duration, and frequency of construction operations. Notification materials shall also identify a mechanism for residents to register noise-related complaints with the RCDTC, who shall consider noise-related concerns on a case-by-case basis.</p>	Prior to and during construction	RCDTC, construction contractor	RCDTC to notify immediate residents. RCDTC to verify implementation through onsite monitoring.	
<b>Transportation</b>				
<p><b>TRANS-1: Implement Traffic Safety Measures at Haul Truck Road Entrances on Sale Lane</b>  The following measures shall be incorporated at the Sale Lane haul truck road entrance(s) during Project construction:</p> <ul style="list-style-type: none"> <li>The haul truck entrance(s) onto Sale Lane from the middle and/or lower access roads shall be flag controlled using appropriately trained personnel provided by the Project Contractor. A flag person wearing OSHA-approved vests and using the "Stop/Slow" paddle shall be present whenever haul trucks are scheduled to cross.</li> </ul>	Prior to and during construction	RCDTC, construction contractor	RCDTC to verify implementation through onsite monitoring.	

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<ul style="list-style-type: none"> <li>Trails adjacent to the haul truck road crossing shall be signed, cautioning users of the equipment in the area.</li> <li>The haul truck road entrance areas shall be swept periodically to ensure that rock and soil material do not accumulate on the road surface.</li> </ul>				
<b>Tribal Cultural Resources</b>				
<b>CUL-1: Protect Newly Discovered Archeological, Prehistoric, or Historic Resources</b> Refer to the 'Cultural Resources' mitigation measure section.	-	-	-	-
<b>CUL-2: Implement Appropriate Procedures for the Treatment of Human Remains</b> Refer to the 'Cultural Resources' mitigation measure section.	-	-	-	-
<b>Key:</b>  CARB = California Air Resources Board CDFW = California Department of Fish and Wildlife CVRWQCB = Central Valley Regional Quality Control Board NAGPRA = Native American Graves Protection and Repatriation Act NAHC = Native America Heritage Commission NMFS = National Marine Fisheries Service OSHA = Occupational Safety and Health Administration  RCDTC = Resource Conservation District of Tehama County Reclamation = United State Bureau of Reclamation SPCCP = Spill Prevention, Control, and Countermeasures Plan SWPPP = Stormwater Pollution Prevention Plan TCAPCD = Tehama County Air Pollution Control District USFWS = United States Fish and Wildlife Service				

Mitigation Measure	Implementation Schedule	Responsible Entity	Implementation/ Monitoring Method	Verification of Compliance (Initials, Date)
<p><b>References</b></p> <p>United States Bureau of Reclamation. 2016. Environmental Assessment Upper Sacramento River Anadromous Fish Habitat Restoration Program. January 2016. Accessible online at: <a href="https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=23758">https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=23758</a></p> <p>United States Fish and Wildlife Service. 2017. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>). Sacramento, California. 28 pp. Accessible online at: <a href="https://www.fws.gov/sacramento/documents/VELB_Framework.pdf">https://www.fws.gov/sacramento/documents/VELB_Framework.pdf</a></p>				