

Appendix B  
Tule Red Tidal Restoration Environmental Commitments and Mitigation Measures



<b>Tule Red Tidal Restoration Environmental Commitments and Mitigation Measures</b>
<p><b>Air Quality Best Management Practices and Mitigation Measures</b></p>
<p>Air Quality Best Management Practices: Enhanced Control Measures and Additional Air Quality Best Management Practices</p> <p>The following control practices will be used to offset any air quality issues that may arise.</p> <ol style="list-style-type: none"> <li>i. Hydroseed with native or noninvasive species appropriate to that specific location or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more).</li> <li>ii. Limit traffic speeds on unpaved roads to 15 mph.</li> <li>iii. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>iv. Replant vegetation with native or noninvasive species appropriate to that specific location in disturbed areas as quickly as possible.</li> <li>v. Maintain properly tuned engines.</li> <li>vi. Minimize the idling time of diesel-powered construction equipment to 2 minutes.</li> <li>vii. Use alternative-powered (e.g., hybrid, compressed natural gas, biodiesel, electric) construction equipment.</li> <li>viii. Use add-on control devices such as diesel oxidation catalysts or particulate filters.</li> <li>ix. Require all contractors to use equipment that meets California Air Resources Board’s most recent certification standard for off-road heavy-duty diesel engines.</li> </ol>
<p>AQ-MM-2 in SMP EIS/EIR: Reduce Construction NOX Emissions</p> <p>Construction activity will be limited so that construction emissions do not exceed the BAAQMD’s construction threshold for NO<sub>x</sub>. Such measures include, but are not limited to, implementing off road equipment mitigation, including installing 1st tier diesel particulate filters (DPFs), and installing diesel oxidation catalysts to reduce NO<sub>x</sub> emissions by 40%.</p>
<p>AQ-MM-3 in SMP EIS/EIR: Implement All Appropriate BAAQMD Mitigation Measures</p> <p>The following BAAQMD standard mitigation measures will be implemented where appropriate and feasible. These measures include:</p> <ul style="list-style-type: none"> <li>• Cover all haul trucks transporting soil, sand, or other loose material off-site.</li> <li>• Remove all visible mud or dirt track-out onto adjacent public roads.</li> <li>• Minimize idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</li> <li>• Maintain all construction equipment in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</li> <li>• Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.</li> </ul>
<p>AQ-MM-4: Limit Restoration and Management Activity</p> <p>The overlap of restoration and management activities will be limited to the extent feasible and the equipment being used for restoration and management activities will not exceed the equipment described in Tables 3-4a-d of Chapter 3 of the Tule Red Addendum and 5.7-10 of the SMP EIS/EIR. This will ensure that construction emissions do not exceed the draft BAAQMD threshold for NO<sub>x</sub>.</p>

<b>Tule Red Tidal Restoration Environmental Commitments and Mitigation Measures</b>
<b>Standard Design Features and Construction Practices</b>
<ul style="list-style-type: none"> <li>• Stop work immediately if a conflict with a utility facility occurs and contacting the affected utility to (1) notify it of the conflict, (2) aid in coordinating repairs to the utility, and (3) coordinate to avoid additional conflicts in the field.</li> </ul>
<ul style="list-style-type: none"> <li>• Implement BMPs to minimize any disease-carrying mosquitoes and threats to public health if it is found that project components pose a threat to public health.</li> </ul>
<ul style="list-style-type: none"> <li>• Control construction equipment access and placement of fill to maintain acceptable loading based on the shear strength of the foundation material.</li> </ul>
<ul style="list-style-type: none"> <li>• Minimize degradation of wetland habitats where feasible by minimizing the disturbance footprint.</li> </ul>
<ul style="list-style-type: none"> <li>• Implement BMPs and minimization measures to minimize water quality impacts such as temporary turbidity increases. See Erosion and Sediment Control Plan below.</li> </ul>
<ul style="list-style-type: none"> <li>• Inspect all equipment for oil and fuel leaks every day prior to use. Equipment with oil or fuel leaks will not be used within 100 feet of wetlands.</li> </ul>
<ul style="list-style-type: none"> <li>• Require the construction contractor to remove all trash and construction debris after construction and to implement a revegetation plan for temporarily disturbed vegetation in the construction zones.</li> </ul>
<ul style="list-style-type: none"> <li>• Maintain waste facilities. Waste facilities include concrete wash-out facilities, chemical toilets, and hydraulic fluid containers. Waste will be removed to a proper disposal site.</li> </ul>
<b>Access Point/Staging Areas</b>
<ul style="list-style-type: none"> <li>• Establish staging areas for equipment storage and maintenance, construction materials, fuels, lubricants, solvents, and other possible contaminants in coordination with resource agencies.</li> </ul>
<ul style="list-style-type: none"> <li>• Staging areas will have a stabilized entrance and exit and will be located at least 100 feet from bodies of water unless site-specific circumstances do not provide such a setback, in which case the maximum setback possible will be used. If an off-road site is chosen, qualified biological and cultural resources personnel will survey the selected site to verify that no sensitive resources would be disturbed by staging activities. If sensitive resources are found, an appropriate buffer zone will be staked and flagged to avoid impacts. If impacts on sensitive resources cannot be avoided, the site will not be used. An alternate site will be selected.</li> </ul>
<ul style="list-style-type: none"> <li>• Where possible, no equipment refueling or fuel storage will take place within 100 feet of a body of water. Vehicle traffic will be confined to existing roads and the proposed access route. Ingress and egress points will be clearly identified in the field using orange construction fence. Work will not be conducted outside the designated work area.</li> </ul>
<b>Erosion and Sediment Control Plan</b>
<ul style="list-style-type: none"> <li>• Prepare and implement an erosion and sediment control plan to control short-term and long-term erosion and sedimentation effects and to restore soils and vegetation in areas affected by construction activities. The plan will include all the necessary local jurisdiction requirements regarding erosion control and will implement BMPs for erosion and sediment control as required.</li> </ul>
<ul style="list-style-type: none"> <li>• Develop an erosion control plan to ensure that during rain events construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion control materials (baffles, fiber rolls, or hay bales; temporary containment berms) and erosion control measures such as straw application or hydroseeding with native grasses on disturbed slopes, and floating sediment booms and/or curtains to minimize any impacts that may occur from increased mobilization of sediments.</li> </ul>

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<b>Stormwater Pollution Prevention Plan</b>	
<ul style="list-style-type: none"> <li>• Develop a stormwater pollution prevention plan (SWPPP) prior to construction. The objectives of the SWPPP will be to (1) identify pollutant sources associated with construction activity and project operations that may affect the quality of stormwater and (2) identify, construct, and implement stormwater pollution prevention measures to reduce pollutants in stormwater discharges during and after construction. The project proponents and/or their contractor(s) will develop and implement a spill prevention and control plan as part of the SWPPP to minimize effects of spills of hazardous, toxic, or petroleum substances during construction of the project. Implementation of this measure will comply with state and federal water quality regulations. The SWPPP will be kept on site during construction activity and during operation of the project and will be made available upon request to representatives of the Regional Water Quality Control Board (Regional Water Board). The SWPPP will include but is not limited to:                             <ul style="list-style-type: none"> <li>a. A description of potential pollutants to stormwater from erosion.</li> <li>b. Management of dredged sediments and hazardous materials present on site during construction (including vehicle and equipment fuels).</li> <li>c. Details of how the sediment and erosion control practices comply with state and federal water quality regulations.</li> <li>d. A description of potential pollutants to stormwater resulting from operation of the project.</li> </ul> </li> </ul>	
<b>Hazardous Materials Management Plan</b>	
<ul style="list-style-type: none"> <li>• The SWPPP will include a hazardous materials spill plan. The plan will describe the actions that will be taken in the event of a spill. The plan also will incorporate preventive measures to be implemented (such as vehicle and equipment staging, cleaning, maintenance, and refueling) and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site immediately will cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination, notify appropriate authorities, and mitigate damage as appropriate. Adequate spill containment materials, such as oil diapers and hydrocarbon cleanup kits, will be available on site at all times. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided on the project site.</li> </ul>	
<ul style="list-style-type: none"> <li>• Do not use any hazardous material in excess of reportable quantities, as specified in Title 40 Code of Federal Regulations (CFR) Part 355, Subpart J, Section 355.50, unless approved in advance by the Office of Emergency Services (OES), and will provide to the OES in the annual compliance report a list of hazardous materials contained at a project site in reportable quantities. The reporting of hazardous materials in excess of reportable quantities of Title 40 CFR Part 355 is required annually to Solano County Environmental Health Services Division as the Solano County Certified Unified Program Agency (CUPA).</li> </ul>	
<b>Mosquito Abatement Best Management Practices</b>	
Develop a management program consistent with Marsh-wide management actions for the control of mosquitoes. If necessary, implement a sampling and treatment program for any depressions that would retain tidal water.	
<b>Noise Compliance</b>	
There are no residences or sensitive receptors near the project site; therefore, noise-reduction practices are not required.	

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<b>Cultural Resources</b>
<ul style="list-style-type: none"> <li>• Prior to ground-disturbing activities in restoration areas, SFCWA will conduct a cultural resources inventory of the restoration area, according to the standards cited in the SMP EIS/EIR (CUL-MM-1 and CUL-MM-5), including:               <ul style="list-style-type: none"> <li>· The implementing regulations for Section 106 of the NHPA (36 CFR 800.4).</li> <li>· The State CEQA Guidelines (14 CCR 15064.5[a]).</li> <li>· Archeology and Historic Preservation: Secretary of the Interior’s Standards and Guidelines (48 Federal Register [FR] 44716–44742).</li> <li>· The Secretary of the Interior’s Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act (including the Guidelines for the Treatment of Cultural Landscapes).</li> <li>· Applicable NRHP bulletins and National Park Service technical briefs (Andrus and Shrimpton 1997; Birnbaum 1994; McClellan et al. 1995).</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• If any cultural resources are determined to be historic properties and ground-disturbing activities are found to result in adverse effects, the Corps or SFCWA will resolve the effects in accordance with Section 106 of the NHPA or CEQA, as applicable.</li> </ul>
<ul style="list-style-type: none"> <li>• If no cultural resources are identified in specific restoration areas, or identified resources are not determined to be significant, no additional cultural work is required.</li> </ul>
<ul style="list-style-type: none"> <li>• If any previously unknown historic or archeological artifacts are discovered while accomplishing the authorized work, the landowner must stop work within 100 feet of the find immediately and notify the SFCWA and the Corps. All construction personnel will leave the area. Vehicles and equipment will be left in place until a qualified archaeologist identifies a safe path out of the area. The on-site supervisor will flag or otherwise mark the location of the find and keep all traffic away from the resource. The on-site supervisor immediately will notify the lead state or federal agency of the find. The activity is not authorized until the requirements of Section 106 of the NHPA have been satisfied.</li> </ul>
<ul style="list-style-type: none"> <li>• If human remains of Native American origin are discovered during ground disturbing activities on non-federal land, SFCWA or the Corps must comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (NAHC) (PRC 5097). If human remains are discovered or recognized in any location other than a dedicated cemetery, SFCWA or the Corps will not allow further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:               <ul style="list-style-type: none"> <li>a. the Solano County coroner has been informed and has determined that no investigation of the cause of death is required; and</li> <li>b. if the remains are of Native American origin, the descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98; or                   <ul style="list-style-type: none"> <li>1. the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 48 hours after being notified by the NAHC.</li> <li>2. If any previously unknown historic or archeological artifacts are discovered while accomplishing the authorized work, the landowner must stop work immediately and notify the Corps. The activity is not authorized until the requirements of Section 106 of the NHPA have been satisfied.</li> </ul> </li> </ul> </li> </ul>

<b>Tule Red Tidal Restoration Environmental Commitments and Mitigation Measures</b>	
<b>Biological Resources</b>	
<b>Best Management Practices</b>	
<p>The following section outlines the best management practices (BMPs) that will be implemented to avoid or minimize impacts on biological resources. Environmental commitments, including an erosion and sediment control plan, SWPPP, hazardous materials management plan, spoils disposal plan, and environmental training content will be submitted to NMFS, USFWS, and DFW 30 days prior to commencement of construction.</p>	
<b>General</b>	
<ul style="list-style-type: none"> <li>• No firearms (except for federal, state, or local law enforcement officers and security personnel) will be permitted at the project site to avoid harassment, killing, or injuring of wildlife.</li> </ul>	
<ul style="list-style-type: none"> <li>• No pets will be permitted at the project site to avoid harassment, killing, or injuring of wildlife.</li> </ul>	
<ul style="list-style-type: none"> <li>• Native vegetation trimmed or removed on the project site will be stockpiled during work. After construction activities, removal of temporary mats and construction-related materials, and application of native and naturalized species seed mix have been completed, stockpiled native vegetation will be reapplied over temporarily disturbed wetlands to provide temporary soil protection and as a seed source.</li> </ul>	
<ul style="list-style-type: none"> <li>• Vegetation shall be removed under the supervision of a qualified biologist approved by DFW and USFWS. If a mouse of any species is observed within the areas being removed of vegetation, DFW and USFWS shall be notified. Vegetation removal may begin when no mice are observed and shall start at the edge farthest from the salt marsh or the poorest habitat and work its way toward the salt marsh or the better salt marsh habitat.</li> </ul>	
<ul style="list-style-type: none"> <li>• Removal of vegetation in wetland habitat will be conducted with a qualified biological monitor present. This monitor will watch for special-status wildlife species and temporarily stop work if special-status species are encountered. Wildlife will be allowed to escape before work is resumed. Monitors with the appropriate qualifications to handle special-status species will be allowed to move special-status species to safe locations as permitted by their authorizations.</li> </ul>	
<ul style="list-style-type: none"> <li>• Temporarily affected wetlands will be restored by removing construction related debris and trash. Affected areas will be seeded with a native and naturalized seed mix.</li> </ul>	
<b>Worker Training</b>	
<ul style="list-style-type: none"> <li>• The Service-approved biologist will provide training to field management and construction personnel on the importance of protecting environmental resources. Communication efforts and training will take place during preconstruction meetings so that construction personnel are aware of their responsibilities and the importance of compliance.</li> </ul>	

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<ul style="list-style-type: none"> <li>• Construction personnel will be educated on the types of sensitive resources located in the project area and the measures required to avoid impacts on these resources. Materials covered in the training program will include environmental rules and regulations for the specific project and requirements for limiting activities to the construction right-of-way and avoiding demarcated sensitive resources areas. Training seminars will educate construction supervisors and managers on:                             <ul style="list-style-type: none"> <li>i. The need for resource avoidance and protection.</li> <li>ii. Construction drawing format and interpretation.</li> <li>iii. Staking methods to protect resources.</li> <li>iv. The construction process.</li> <li>v. Roles and responsibilities.</li> <li>vi. Project management structure and contacts.</li> <li>vii. Environmental commitments.</li> <li>viii. Emergency procedures.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• If new construction personnel are added to the project, the contractor will ensure the personnel receive the mandatory training before starting work. A representative will be appointed during the employee education program to be the contact for any employee or contractor who might inadvertently kill or injure a listed species or who finds a dead, injured, or entrapped individual. The representative’s name and telephone number will be provided to the USFWS before the initiation of ground disturbance.</li> </ul>	
<b><i>Special-Status Plant Species Protection</i></b>	
<ul style="list-style-type: none"> <li>• Special-status plant surveys required for project-specific permit compliance will be conducted within 1 year prior to initiating construction. The purpose of these surveys will be to verify the locations of special-status plants identified in previous surveys are extant, identify any new special-status plant occurrences, and cover any portions of the project area not previously identified. The extent of mitigation of direct loss of or indirect impacts on special-status plants will be based on these survey results.</li> </ul>	
<ul style="list-style-type: none"> <li>• If found, the locations of special-status plants in proposed construction areas will be recorded using a global positioning system (GPS) unit and flagged.</li> </ul>	
<ul style="list-style-type: none"> <li>• Any special-status plant species observed during surveys will be reported to the Service and DFW so the observations can be added to the California Natural Diversity Database (CNDDB).</li> </ul>	
<b><i>Special-Status Wildlife Species Protection</i></b>	
<ul style="list-style-type: none"> <li>• If individuals of listed wildlife species may be present and subject to potential injury or mortality from construction activities, a Service or DFW-approved biologist will conduct a preconstruction survey. If a listed wildlife species is discovered, construction activities will not begin in the immediate vicinity of the individual until the Service or DFW is contacted, depending on the species, and the individual has been allowed to leave the construction area.</li> </ul>	
<ul style="list-style-type: none"> <li>• Minimum qualifications for the qualified biologist will be a 4-year college degree in biology or related field and 2 years of professional experience in the application of standard survey, capture, and handling methods for the species of concern. However, in the case of fully protected species, no capture or handling will be done.</li> </ul>	
<ul style="list-style-type: none"> <li>• Any special-status mammal, bird, or other species observed during surveys will be reported to the Service and DFW so the observations can be added to the California Natural Diversity Database (CNDDB).</li> </ul>	

<b>Tule Red Tidal Restoration Environmental Commitments and Mitigation Measures</b>
<p><b>Mammals</b></p> <p style="text-align: center;"><b>SMHM and Suisun Shrew</b></p> <ul style="list-style-type: none"> <li>• A Service-approved biologist, with previous salt marsh harvest mouse monitoring and surveying experience, will identify suitable salt marsh habitat for the mouse and conduct preconstruction surveys for the mouse prior to project initiation.</li> </ul>
<ul style="list-style-type: none"> <li>• Vegetation will be removed from all areas (driving roads, action area, or anywhere else that vegetation could be stepped on).</li> </ul>
<ul style="list-style-type: none"> <li>• If a salt marsh harvest mouse is discovered, construction activities will cease in the immediate vicinity of the individual until the Service is contacted and the individual has been allowed to leave the construction area.</li> </ul>
<ul style="list-style-type: none"> <li>• A Service-approved biologist with previous salt marsh harvest mouse experience will be on site during construction activities occurring in wetlands. The biologist will document compliance with the project permit conditions and avoidance and conservation measures. The Service-approved biologist has the authority to stop project activities if any of the requirements associated with these measures is not being fulfilled. If the Service-approved biologist has requested work stoppage because of take of any of the listed species, the Service and DFW will be notified within 1 day by email or telephone.</li> </ul>
<ul style="list-style-type: none"> <li>• Disturbance to wetland vegetation (i.e., pickleweed [<i>Salicornia</i> spp.]) will be avoided to the extent feasible in order to reduce potential impacts on SMHM habitat. If wetland vegetation (i.e., pickleweed [<i>Salicornia</i> spp.]) cannot be avoided, it will be removed by a method approved by the USFWS and DFW. The USFWS-approved biologist will be on site to monitor all wetland vegetation removal activities.</li> </ul>
<p style="text-align: center;"><b>Bats</b></p> <ul style="list-style-type: none"> <li>• Pre-demolition surveys would be required prior to the demolition of existing structures to ensure no bat presence. These pre-demolition surveys would be conducted by a qualified biologist, and would occur up to 3 days prior to demolition. If live bats or indications of bat use, including guano, staining, prey remains, bat carcasses are not found within the existing structures, the structures may be demolished at any time</li> <li>• If live bats or indications of bat use are found, the demolition of the structures would be limited to the beginning of September to the middle of October, at which time remaining bats would be evicted using appropriate protocols prior to demolition.</li> <li>• Windows and doors of the structures would be kept closed and sealed prior to demolition to prevent bats from inhabiting or roosting in the structures.</li> <li>• To the degree feasible, stored material, furnishings, wooden fixtures and debris piles in and around the buildings will be checked for bats and cleared from the area prior to demolition to improve visual survey access to potential roost spaces.</li> </ul>
<p><b>Birds</b></p> <ul style="list-style-type: none"> <li>• Preconstruction surveys will be performed to determine whether nesting birds, including migratory birds, raptors, and special-status bird species, are present within or immediately adjacent to the project sites and associated staging and storage areas if activities would occur during active nesting periods. Bird species using the managed wetland habitat include waterfowl, shorebirds, Suisun song sparrow, Suisun common yellowthroat, and several other resident and migratory songbirds.</li> </ul>
<ul style="list-style-type: none"> <li>• All woody and herbaceous vegetation will be removed from construction areas (earthwork areas), during the nonbreeding season (September 1–February 1) to the extent feasible, to minimize effects on nesting birds. If woody and herbaceous vegetation removal occurs during the breeding season, a qualified biologist will survey the construction area for active nests and young migratory birds immediately before removal activities.</li> </ul>
<ul style="list-style-type: none"> <li>• During the breeding season, all vegetation subject to impact will be maintained to a height of approximately 6 inches to minimize the potential for nesting.</li> </ul>

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<ul style="list-style-type: none"> <li>• If active nests or migratory birds are found within the boundaries of the construction area, an acceptable buffer width and appropriate measures will be developed in coordination with DFW.</li> </ul>
<ul style="list-style-type: none"> <li>• Inactive migratory bird nests (excluding raptors) located outside the construction areas will be preserved. If an inactive migratory bird nest is located in the area of effect, it will be removed before the start of the breeding season (approximately February 1).</li> </ul>
<ul style="list-style-type: none"> <li>• Impacts on great blue heron rookeries will be avoided; mature trees will not be removed, and nearby work will occur outside the nesting season.</li> </ul>
<p><b>Raptors</b></p> <ul style="list-style-type: none"> <li>• Preconstruction surveys will be performed before and during the raptor nesting season (bimonthly, i.e., two times per month) to identify existing nests that may be used during the nesting season.</li> </ul>
<ul style="list-style-type: none"> <li>• Raptors may nest from later winter through mid-summer; therefore, multiple nesting season surveys will performed.</li> </ul>
<ul style="list-style-type: none"> <li>• DFW will be notified of all raptor nests located during the preconstruction surveys. If a raptor nest is located within the recommended buffer, the project proponents will coordinate with DFW to determine an acceptable buffer width.</li> </ul>
<ul style="list-style-type: none"> <li>• If an active raptor nest is found outside the construction areas, a buffer zone will be developed in coordination with DFW. For special-status species, a larger buffer will be required (e.g., 0.5-mile Swainson’s hawk buffer). The project proponents will coordinate with DFG prior to project implementation to determine the species-specific buffer widths.</li> </ul>
<p><b>California Clapper Rail and California Black Rail</b></p> <p>If construction activities are necessary during the breeding season, preconstruction surveys for California clapper rail and black rail will be conducted by a Service-approved biologist at and adjacent to areas of potential tidal and managed wetlands habitat for California clapper rail and black rail. The surveys will focus on potential habitat that may be disturbed by construction activities during the breeding season to ensure that these species are not nesting in these locations.</p>
<p><i>Exception:</i> Only inspection, maintenance, research, or monitoring activities may be performed during the California clapper rail or black rail breeding season in areas within or adjacent to California clapper rail breeding habitat with approval of the USFWS and DFG under the supervision of a qualified biologist</p>
<p><b>California Least Tern</b></p> <p>No activities will be performed within 300 feet of an active least tern nest during the least tern breeding season, April 15 to August 15 (or as determined through surveys).</p>
<p><i>Exception:</i> Only inspection, maintenance, research, or monitoring activities may be performed during the least tern breeding season in areas within or adjacent to least tern breeding habitat with approval of the Service and DFW under the supervision of a qualified biologist.</p>
<p><b>Western Pond Turtle</b></p> <ul style="list-style-type: none"> <li>• Preconstruction surveys will be performed in all managed wetlands and in adjacent sloughs that provide suitable habitat for western pond turtle. If pond turtles are identified, the area will be surveyed for nesting sites, if construction activities would occur during the nesting season.</li> </ul>
<ul style="list-style-type: none"> <li>• If pond turtles are identified in managed wetlands to be breached, the ponds and associated drainages will be dewatered and, to the extent feasible, any turtles observed will be captured and released to other suitable locations within a nearby managed wetland or drainage.</li> </ul>

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<b>Fish</b>
<ul style="list-style-type: none"> <li>The NMFS Santa Rosa Area Office must be notified by letter or email message stating the project commencement date, at least 14 days prior to implementation.</li> </ul>
<ul style="list-style-type: none"> <li>NMFS employee(s) or any other person(s) designated by NMFS will be allowed access to the work site.</li> </ul>
<ul style="list-style-type: none"> <li>A biologist or on-site monitor will evaluate the project site during construction to document any actions or condition that could adversely affect salmonids, green sturgeon, or their habitat. Whenever conditions are identified that could adversely affect salmonids, green sturgeon, or their habitat, in a manner not described in this opinion, NMFS shall be immediately notified by contacting biologist Daniel Logan at (707) 575-6053 or dan.logan@noaa.gov.</li> </ul>
<ul style="list-style-type: none"> <li>Draft restoration design plans (65-90 percent design level) will be submitted to NMFS for review and written approval at least 120 days prior to initiation of construction.</li> </ul>
<ul style="list-style-type: none"> <li>The draft restoration design plans will be submitted to:            NMFS Santa Rosa Area Office            Attention: Supervisor of Protected Resources Division            777 Sonoma Avenue, Room 325            Santa Rosa, California, 95404-6528</li> </ul>
<ul style="list-style-type: none"> <li>In-water construction activities, such as levee construction and levee breaching, will occur during the in-channel work window of September 1 through November 30.</li> </ul>
<b>Biological Monitoring</b>
<ul style="list-style-type: none"> <li>A Service-approved biologist/environmental monitor will be responsible for monitoring implementation of the conditions in the state and federal permits (CWA Section 401, 402, and 404; ESA Section 7; Fish and Game Code Section 1602 and/or 2050; project plans [SWPPP]; and EIS/EIR mitigation measures).</li> </ul>
<ul style="list-style-type: none"> <li>The Service-approved biologist/environmental monitor will determine the location of environmentally sensitive areas adjacent to each construction site based on mapping of existing land-cover types and special-status plant species. If such maps are not available, the biologist/environmental monitor will map and quantify the land-cover types and special-status plant populations in the proposed project footprint prior to construction.</li> </ul>
<ul style="list-style-type: none"> <li>The biologist/environmental monitor will ensure the avoidance of all sensitive habitat areas outside direct project footprints, including patches of tidal wetland along channel banks, during dredging operations, to the extent practical.</li> </ul>
<ul style="list-style-type: none"> <li>Plants for revegetation will come primarily from natural recruitment. Plants imported to the restoration areas will come from local stock, and to the extent possible, local nurseries. Only native or naturalized plants will be used for restoration efforts.</li> </ul>
<ul style="list-style-type: none"> <li>To avoid construction-phase disturbance to sensitive habitats immediately adjacent to the action area, the limits of construction will be marked on the construction drawings and identified in the field.</li> </ul>
<b>Construction Period Restrictions</b>
<p>Timing of restoration construction activities will depend on the type of activity, presence or absence of sensitive resources, tides, and/or water management in wetlands. In general, landside work will occur between July and September. In-water activities will be conducted during the months of August through November. Working outside this window will require additional approvals from the resource agencies. Other timing restrictions may be necessary during the hunting season, such as limiting work to days other than Saturday, Sunday, and Wednesday.</p>

<b>Tule Red Tidal Restoration Environmental Commitments and Mitigation Measures</b>
<p><b>Nonnative Plant Control</b></p> <p>The following measures will be included in the project construction specifications to minimize the potential for the introduction of new noxious weeds and the spread of weeds previously documented in the project area.</p>
<ul style="list-style-type: none"> <li>• Use certified, weed-free, imported erosion control materials (or rice straw in upland areas).</li> </ul>
<ul style="list-style-type: none"> <li>• Coordinate with the county agricultural commissioner and land management agencies to ensure that the appropriate BMPs are implemented.</li> </ul>
<ul style="list-style-type: none"> <li>• Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of noxious weeds.</li> </ul>
<ul style="list-style-type: none"> <li>• Clean equipment at designated wash stations after leaving noxious weed infestation areas.</li> </ul>
<ul style="list-style-type: none"> <li>• As feasible, treat isolated infestations of noxious weeds identified in the project area with approved eradication methods at an appropriate time to prevent further formation of seed, and destroy viable plant parts and seed.</li> </ul>
<ul style="list-style-type: none"> <li>• Minimize surface disturbance to the greatest extent possible.</li> </ul>
<ul style="list-style-type: none"> <li>• Seed all disturbed areas with native and naturalized seed mixes, as provided in the revegetation plan developed in cooperation with DFW. Mulch with certified weed-free mulch. Rice straw may be used to mulch upland areas.</li> </ul>
<ul style="list-style-type: none"> <li>• Use native, noninvasive species or nonpersistent hybrids in erosion control plantings to stabilize site conditions and prevent invasive species from colonizing.</li> </ul>
<ul style="list-style-type: none"> <li>• Restore or enhance suitable habitat areas that are occupied by, or are near and accessible to, special-status species that have been adversely affected by the permanent removal of occupied habitat areas.</li> </ul>
<p>Note: The Table was been prepared by Westervelt Ecological Services, LLC (WES) and reviewed by ICF. This table largely reflects the Restoration Environmental Commitments and BMPs included in the Suisun Marsh Plan EIS/EIR, the Conservation Measures included in the USFWS Biological Opinion (<a href="http://www.suisunrcd.org/documents/2013FWSSMPBO-USACE.pdf">http://www.suisunrcd.org/documents/2013FWSSMPBO-USACE.pdf</a>), and the Conservation Measures included in the NMFS Biological Opinion (<a href="http://www.suisunrcd.org/documents/Corps-BOR-SMPopinion3Jul2013.pdf">http://www.suisunrcd.org/documents/Corps-BOR-SMPopinion3Jul2013.pdf</a>) as modified to reflect site conditions and constraints. Where appropriate, it also references the applicable mitigation measures to the Tule Red Restoration project that were incorporated into the SMP EIS/EIR.</p>