

AUGUST 2019

Exhibit C
Prospect Island Tidal Habitat Restoration
Project, as analyzed in the 2019 Final
Environmental Impact Report, State
Clearinghouse #20013052056

California Environmental Quality Act
Mitigation, Monitoring, and Reporting
Program



1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires the adoption of feasible mitigation measures to reduce the severity and magnitude of potentially significant environmental impacts associated with the project. As set forth in the 2019 Final Environmental Impact Report (FEIR), implementation of the Prospect Island Tidal Habitat Restoration Project (Project) could generate some potentially significant adverse environmental impacts to the physical environment and feasible mitigation measures within the jurisdiction of the California Department of Water Resources (DWR) are included that avoid or substantially lessen the significant impacts.

CEQA Guidelines Sections 15091(d) and 15097(a), as well as Public Resources Code Section 21081.6 (a), require the public agency to adopt a reporting or monitoring program to ensure that measures to mitigate or avoid significant effects on the environment are implemented. This Mitigation, Monitoring, and Reporting Program (MMRP) has been prepared to ensure that all required CEQA mitigation measures are implemented and completed according to schedule during project construction and implementation. Unless otherwise specified, DWR is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. DWR, at its discretion, may delegate implementation of its responsibility or portions thereof, as it deems appropriate to contractors or other entities.

California Department of Water Resources (DWR) has separately prepared a memorandum regarding approval of the Project and Decision Document (both dated August 19th 2019) that makes the decisions required by CEQA, including certification of the 2019 FEIR (Exhibit A to the memorandum) as adequate; adoption of Findings and the Statement of Overriding Considerations (Exhibit B to the memorandum); adoption of a MMRP (Exhibit C to the memorandum; this document); and submission of the Notice of Determination (Exhibit D to the memorandum).

The EIR identifies the No Project Alternative and two “build” alternatives (Alternatives 2 and 3) in addition to the Proposed Project, which was the preferred alternative in the 2016 Draft Environmental Impact Report (DEIR) process. After reviewing public comments and considering the impacts and benefits of the Alternatives identified in the EIR, DWR has decided to move forward with Alternative 2 (two breaches of the Prospect Island – Miner Slough levee at central and southern locations and a weir at the north end of the

property) instead of the Proposed Project (two breaches of the Prospect Island – Miner Slough levee at northern and southern locations). Therefore, this MMRP relates to Alternative 2 of the 2019 FEIR. The relevant mitigation measures that were identified for the Proposed Project in the 2019 FEIR also apply to Alternative 2, except for Mitigation Measure 3.2-2.1 which relates to dredging of the Miner Slough spur channel. No dredging of the Miner Slough spur channel will be undertaken for Alternative 2.

All but one of the short-term impacts would be *no impact, less than significant or less than significant with mitigation*. Short-term impacts to perennial aquatic habitats and wetland communities from site preparation would be *significant and unavoidable* and a Statement of Overriding Considerations has been prepared separately (see Exhibit B to the memorandum). In the long-term, the Proposed Project would have *beneficial* effects on water temperature, aquatic species and habitat, western pond turtle, foraging and migratory birds, and subsidence within Prospect Island due to sediment deposition, and would also remove existing hazards. There would be no *significant and unavoidable* long-term impacts.

2 MMRP SUMMARY TABLE

The MMRP Summary Table identifies individual mitigation measures, implementation and monitoring responsibility, and mitigation timing. Numbering of mitigation measures follows the numbering sequence used in the EIR. Acronyms used in the mitigation measures are defined in the 2019 FEIR.

Table 1. Prospect Island California Environmental Quality Act (CEQA) Mitigation Monitoring and Reporting Program (MMRP) Summary Table.

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
HYDROLOGY– No mitigation required				
WATER QUALITY				
3.2-1 Short-term construction-related water quality impacts	Mitigation Measure 3.2-1.1 A site dewatering plan shall be developed by the construction contractor and submitted to DWR for approval prior to commencement of construction activities. The site dewatering plan shall include items such as the following: <ol style="list-style-type: none"> 1. Detailed description of work to be performed to control surface water at the Project site. 2. Detailed description of methods, installation and details of the dewatering systems proposed to be used. 3. Drawings showing the detailed layout of dewatering systems including pumps, ditches, berms, discharge lines, BMPs, and barriers to shield or divert flow. 4. Supporting design information including design calculations prepared by a California Registered Civil Engineer, type of systems, sizes, capacities, proposed number and layout of pumps, depths, filters, other needed equipment, and power supply. 5. Information related to backup pumping systems, backup power systems, and warning systems to protect against power failure, system failure, and high groundwater. 6. Information related to operation, maintenance, monitoring, removal, decommissioning pumps, and system abandonment procedures. 7. Information related to discharge including methods to monitor turbidity and water treatment if necessary. 	Contractor	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>8. Provisions for handling significant rainfall events (greater than 0.5 inches (in) predicted in a 24-hour period as described in the SWPPP). This shall also include procedures to be followed prior to the forecasted significant rain events.</p> <p>9. Provisions for handling emergency situations such as power outages, equipment failures, pumping system shutdowns and the proposed response.</p> <p>10. Information on schedule and sequencing of dewatering activities.</p> <p>11. Information on dewatering operations shall be coordinated with other construction operations including placement of compacted soil, removal and placement of pipe, and other miscellaneous items.</p>			
	<p>Mitigation Measure 3.2-1.2</p> <p>Upland areas of the Project associated with staging activities shall be covered by a Stormwater Pollution Prevention Plan (SWPPP). All contractors working in a capacity that could increase the potential for adverse water quality impacts would receive training regarding the need to minimize impacts. Contractors would also be familiar with general storm water construction-site BMPs for the protection of water quality. The SWPPP may include, but would not be limited to, the following:</p> <ol style="list-style-type: none"> 1. Use of vegetated buffers, hay wattles or bales, sandbags, silt screens, or other erosion control measures to intercept runoff from construction, excavation, or staging areas to adjacent waterbodies. 2. BMPs for staging of construction supplies and waste management. 	Contractor	DWR	Before, during, and after construction
	<p>Mitigation Measure 3.2-1.3</p> <p>A Spill Prevention, Control, and Response Plan shall be developed by the construction contractor and submitted to DWR for approval prior to</p>	Contractor	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>commencement of construction activities. Spill prevention and cleanup kits, equipment, and materials shall always be in close proximity to locations of hazardous materials (e.g., at fueling and staging areas) and conveniently located to allow rapid response. Prior to entering the work site, all field personnel would be informed of the location of the spill prevention and cleanup kits and appropriately trained in spill prevention, hazardous material control, and spill cleanup. The work site would be routinely inspected to verify that the Plan is properly implemented. The Plan would include:</p> <ol style="list-style-type: none"> 1. A vehicle inspection and fueling plan. 2. BMPs for spill prevention and containment. 3. Locations and uses of spill prevention materials, cleanup kits, and equipment. 4. Qualification and reporting requirements for a federal reportable spill (40 CFR 110) including contact information for the RWQCB and the California Department of Toxic Substances Control (DTSC). 			
<p>3.2-3 Short-term construction-related effects from application of aquatic herbicides</p>	<p>Mitigation Measure 3.2-3.1 Best Management Practices (BMPs) shall be employed in order to minimize potential impacts to water quality from accidental spills. All contractors working shall receive training regarding the need to minimize impacts. Contractors shall be experienced and compliant in the environmentally-safe application of herbicides. BMPs shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> 1. Areas for storage, mixing, and loading of herbicides shall be located where accidental spills to nearby waterbodies cannot occur. 2. Applicators shall be trained in proper spill response, and rapidly report any spill to the appropriate agencies. 	<p>Contractor and DWR</p>	<p>DWR</p>	<p>Before, during, and after construction</p>

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>3. Applicators shall maintain on-site (near herbicide storage and loading equipment) appropriate initial spill-response items (e.g., absorbent materials).</p> <p>Mitigation Measure 3.2-3.2</p> <p>In order to minimize off-target spray drift and impacts to water quality from herbicide application, aerial pesticide application by helicopter shall be preferred (over fixed wing aircraft). In addition, all appropriate, standard BMPs for aerial application of pesticides shall be followed, including but not limited to, the following:</p> <ol style="list-style-type: none"> 1. Applicators shall develop an application plan--including maps of the Project site showing general spotter and flight plans with application areas clearly indicated--to be approved by DWR, before any application of herbicides. 2. Applicators shall adhere strictly to proper mixing and application guidelines as presented on herbicide labels and in product instructions. 3. Application of herbicides on levee vegetation shall not take place by air and otherwise avoided unless necessary, when it would be executed using spot application techniques. 4. Herbicide application by air shall only take place from July 1 to October 31 of any one year, in order to reduce potential impacts to migrating fish species of concern. 5. Applicators shall maintain records of herbicide applications—including dates, times, weather conditions, amount of herbicide applied, problems experienced, etc.— in addition to or as required by federal, state, and/or local agencies. 	Contractor	DWR	Before, during, and after construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<ul style="list-style-type: none"> 6. Spraying shall at all times be halted when flying over levees, adjacent waterbodies (i.e., Miner Slough, DWSC), and agricultural fields. 7. Aerial application would occur only during light winds, non-gusty, relatively cool weather conditions. 8. Application would involve the use of appropriate spray nozzles, nozzle configurations, and nozzle orientations that minimize atomization of herbicide mixtures and production of fine droplets that tend to drift. 9. Herbicide tanks would not be operated at excessively high pressures. 10. If conditions require the use of aerial spray by fixed-wing aircraft, pilots shall be instructed to include an appropriate spray buffer (in addition to the width of the levee) where, to the extent possible, no herbicides would be directly applied (subject to overriding safety concerns). 			

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
AQUATIC BIOLOGICAL RESOURCES				
3.3-3 Short-term direct construction-related injury or mortality of fish	Mitigation Measure 3.3-3.1 Pile driving activities shall be conducted using vibratory hammers, where feasible, to minimize sound attenuation from pile driving activities. If in-water pile driving activities become necessary, underwater acoustic monitoring shall be performed at submerged pile driving locations to ensure that peak sound pressure does not exceed 206 decibels and accumulated sound exposure level does not exceed 187 decibels at 10 meters. If work is performed at a time when fish less than 2 grams are expected near the Project site, accumulated sound exposure levels shall not exceed 183 decibels at 10 meters. Underwater sound reduction measures shall be implemented as needed to ensure that sound levels do not exceed the above thresholds. Sound reduction measures may include impact cushions, pipe caissons, bubble curtains, fabric barriers, and limiting operational hours and impact frequency.	Contractor and DWR	DWR	During construction
	Mitigation Measure 3.3-3.2 DWR shall consult with CDFW and USFWS before conducting any in-water work during the month of July. DWR shall determine the extent of Delta Smelt presence in the Cache Slough Complex and Miner Slough by evaluating catch and distribution data from CDFW’s 20mm Survey and Summer Townet Survey. The results shall be sent to USFWS and CDFW representatives to determine the extent of allowable in-water work. 20mm Survey stations 724 and 726 are located in Miner Slough at the lower and upper ends of Prospect Island and shall be used to determine Delta Smelt abundance in Miner Slough during July construction activities. Summer Townet Survey Station 715, just downstream of Miner Slough in Cache Slough;	DWR	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	Station 723, just upstream from Miner Slough in the DWSC; and Station 716, just upstream from Miner Slough in Lindsey Slough, shall be used to determine Delta Smelt abundance in the vicinity of Miner Slough when the 20mm Survey is not active.			
3.3-4 Short-term construction-related noise impediments to fish migration	See Mitigation Measure 3.3-3.1 (as set forth in Impact 3.3-3 <i>Short-term direct construction-related injury or mortality of fish</i> above)	Contractor and DWR	DWR	During construction
3.3-7 Short-term fish injury or mortality during dewatering	Mitigation Measure 3.3-7.1 To minimize mortality due to the dewatering process, a Fish Rescue Plan shall be prepared by DWR for approval by state and federal fish agencies (CDFW, USFWS, NMFS). Development of the Fish Rescue Plan shall include consideration of numerous sampling methods (seines, electrofishing, traps) and events, performed during and potentially after initial site dewatering. Fish would be captured alive and transported to nearby suitable habitat for release. The fish rescue would occur under the direction of CDFW.	DWR	DWR	Before and during construction
WETLAND AND TERRESTRIAL BIOLOGICAL RESOURCES				
3.4-3 Short-term loss of valley/ foothill riparian habitat	Mitigation Measure 3.4-3.1 Potential short-term impacts to individual high value trees for nesting and roosting would be minimized during final design by avoidance and protection measures, as specified in Mitigation Measures 3.4-14.1 and 3.4-17.1. A map of high value trees for nesting to be protected will be made available to onsite construction management.	DWR	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
3.4-4 Short-term construction-related mortality or detrimental effects to sensitive plants	See Mitigation Measure 3.2-3.2 (as set forth in Impact 3.2-3 <i>Short-term construction-related effects from application of aquatic herbicides</i> above)	Contractor	DWR	Before, during, and after construction
	Mitigation Measure 3.4-4.1 Mitigation shall include conducting pre-construction surveys for special-status plants. If special-status plants are found within the affected footprint, preservation methods such as transplantation, salvage, or seed collection and dispersal would be considered and shall be implemented if deemed necessary to avoid a significant impact to the local population through consultation with CDFW. Herbicide application practices shall include following all application recommendations for the herbicide to be applied, and refraining from applying product under wind conditions which would increase the likelihood for drift.	DWR	DWR	Before, during and after construction
3.4-6 Long-term loss of valley/ foothill riparian habitat	See Mitigation Measure 3.4-3.1 (as set forth in Impact 3.4-3 <i>Short-term loss of valley/foothill riparian habitat</i> above)	DWR	DWR	Before and during construction
3.4-8 Short-term construction-related impacts to valley elderberry longhorn beetle	See Mitigation Measure 3.2-3.1 (as set forth in Water Quality Impact 3.2-3 <i>Short-term construction-related effects from application of aquatic herbicides</i> above)	Contractor and DWR	DWR	Before, during, and after construction
	See Mitigation Measure 3.2-3.2 (as set forth in Impact 3.2-3 <i>Short-term construction-related effects from application of aquatic herbicides</i> above)	Contractor	DWR	Before, during, and after construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
<p>3.4-10 Short-term construction-related injury or mortality and loss of habitat for giant garter snakes</p>	<p>Mitigation Measure 3.4-10.1 This mitigation measure includes the following:</p> <ol style="list-style-type: none"> 1. Require construction personnel to receive USFWS and CDFW-approved worker environmental awareness training to recognize giant garter snake and its habitat. 2. Install exclusion fencing around all staging areas and areas of construction to avoid attracting giant garter snake to the construction site. 3. Survey the site at least 24 hours prior to the initiation of ground-disturbing activities in suitable giant garter snake habitat. This survey shall be conducted by a USFWS and CDFW-approved biologist in suitable giant garter snake habitat. Surveys shall be repeated if a lapse in construction activity of two weeks or greater occurs. If giant garter snake is encountered during ground-disturbing activities, activities at that specific location shall cease until appropriate corrective measures, in concurrence with USFWS and CDFW coordination, have been completed or it has been determined that individual giant garter snakes would not be harmed. Sightings shall be reported to USFWS and CDFW. 4. Implement ground disturbing construction activity within giant garter snake habitat between May 1 and October 1. This is the active period for giant garter snake and direct mortality is lessened, because giant garter snakes are expected to actively move and avoid danger. DWR would contact the USFWS and CDFW to determine if additional measures are necessary to minimize and avoid take for work between October 2 and April 30. 	<p>DWR and Biological Monitor</p>	<p>DWR</p>	<p>Before, during, and after construction</p>

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<ol style="list-style-type: none"> 5. Vehicle speeds shall not exceed 15 MPH to avoid hitting giant garter snakes and other special-status wildlife. 6. Remove temporary fill and construction debris after construction completion, and, wherever feasible, restore disturbed areas to pre-Project conditions. 			
3.4-12 Short-term construction-related habitat loss and injury or mortality of individual western pond turtles	Mitigation Measure 3.4-12.1 Prior to implementing construction activities and/or scheduled dewatering, a qualified biologist would survey areas in or adjacent to suitable western pond turtle aquatic habitat. Western pond turtles found in harm’s way would be moved by a qualified biologist to a safe location outside of the work area in a manner consistent with applicable CDFW regulations. A qualified biologist would conduct periodic monitoring of suitable western pond turtle aquatic habitat until ground-disturbing/dewatering activities have ceased in those areas. This mitigation measure is consistent with Solano County’s General Plan policies RS.P-1 through RS.P-9.	DWR and Biological Monitor	DWR	Before and during construction
	See Mitigation Measure 3.2-1.2 (as set forth in <i>Impact 3.2-1 Short-term construction-related water quality impacts</i> above).	Contractor	DWR	Before, during and after construction
3.4-14 Short-term, construction-related injury or mortality, take of nests, and loss of nesting	Mitigation Measure 3.4-14.1 In order to minimize potential construction related impacts to special-status and migratory birds over the construction period, this mitigation measure includes the following: <ol style="list-style-type: none"> 1. Site preparation and construction activities should take place outside of nesting season (February 15 – August 15) to avoid take via disturbance or destruction of nests or mortality of individuals. If work 	DWR and Biological Monitor	DWR	Before, during and after construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
<p>and foraging habitat of special-status and migratory birds</p>	<p>begins before this period and continues uninterrupted throughout the nesting season, the consistent disturbance may deter birds from nesting at the site and prevent take.</p> <ol style="list-style-type: none"> 2. If work must take place during March 15 – August 15, a preconstruction survey would be conducted within 14 days prior to the initiation of construction activity by a qualified biologist to identify nesting Swainson’s Hawks within 0.5 miles (mi) of the construction footprint. If active Swainson’s Hawk nests are found, appropriate non-disturbance buffers and avoidance measures would be developed in coordination with CDFW to avoid disturbance of nesting Swainson’s Hawks based on individual bird behavior and construction-related disturbance that occurs. Surveys shall be repeated if a lapse in construction of 14 days or greater occurs. Surveys would be repeated annually if work takes place during subsequent nesting seasons. 3. If work must take place during April 1 – August 31, a preconstruction survey would be conducted within 14 days prior to the initiation of construction activity to identify nesting raptors within 500 feet (ft), and other nesting birds within 100 ft of the construction footprint. Appropriate non-disturbance buffers would be established until nestlings have fledged. Surveys shall be repeated if a lapse in construction of 14 days or greater occurs during the nesting season. Surveys would be repeated annually if work takes place during subsequent nesting seasons. 4. If work must take place during March 15 – August 15 and use of non-disturbance buffers is infeasible, a qualified biologist shall be on site to monitor active nests. Monitoring requirements would be 			

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>established in coordination with CDFW. Monitors would have authority to stop work if it appears that Swainson’s Hawk nests are disturbed by construction activity, and CDFW would be contacted for further guidance.</p> <ol style="list-style-type: none"> 5. Remove or trim the minimal number of trees to satisfy the Project design. Trimming and removal would take place August 15 to February 15, outside of nesting season. 6. If construction activity results in take of individual birds or their nests, appropriate mitigation would be determined in coordination with CDFW. 7. Vehicle speed limits shall not exceed 15 MPH to avoid striking birds. 8. Remove temporary fill and construction debris after construction completion, and, wherever feasible, restore disturbed areas to pre-Project conditions. 			
	<p>See Mitigation Measure 3.4-3.1 (as set forth in Impact 3.4-3 <i>Short-term loss of valley/foothill riparian habitat</i>)</p>	DWR and Biological Monitor	DWR	Before and during construction
<p>3.4-15 Long-term conversion of nesting and foraging habitat for special-status and migratory birds</p>	<p>See Mitigation Measure 3.4-3.1 (as set forth in Impact 3.4-3 <i>Short-term loss of valley/foothill riparian habitat</i>)</p>	DWR and Biological Monitor	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
3.4-17 Short-term construction related injury or mortality and loss of roosting and foraging habitat for western red bats	<p>Mitigation Measure 3.4-17.1</p> <p>In order to minimize potential construction related impacts to western red bats over the construction period, this mitigation measure includes the following:</p> <ol style="list-style-type: none"> 1. Confine clearing of vegetation to only those areas necessary to facilitate construction activities and no greater. 2. A pre-construction survey shall be conducted by a qualified biologist to identify roosting western red bats during the maternity season (May through August). If roosting bats are present, construction activities that involve the removal of mature riparian trees, snags, and remnant structures suitable for roosting shall be timed to avoid bat maternity season (May through August). 3. Wherever feasible the Project design and implementation would avoid potential roosting habitat especially large mature trees like cottonwood and sycamore. 4. Coordinate with CDFW on measures to minimize impacts to individuals. 	DWR, Contractor, and Biological Monitor	DWR	Before and during construction
	<p>See Mitigation Measure 3.4-3.1 (as set forth in Impact 3.4-3 <i>Short-term loss of valley/foothill riparian habitat</i>)</p>	DWR, Contractor, and Biological Monitor	DWR	Before and during construction
3.4-18 Long-term removal of western red bat roosting and foraging habitat	<p>See Mitigation Measure 3.4-3.1 (as set forth in Impact 3.4-3 <i>Short-term loss of valley/foothill riparian habitat</i>)</p>	DWR, Contractor, and Biological Monitor	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
GEOLOGY AND SOILS – No mitigation required				
HAZARDS AND HAZARDOUS MATERIAL				
3.6-1 Potential effects from abandoned gas wells	<p>Mitigation Measure 3.6-1.1 Final construction plans shall be revised to avoid existing conflicts between grading and excavation areas and well locations. Once site dewatering is complete and prior to construction work, a geophysical survey shall be conducted to confirm locations of all known abandoned gas wells, which shall be marked and avoided during construction (DOGGR 2014). Also prior to construction, DWR shall file an application under the DOGGR Well Review Program and the site would be inspected.</p>	Contractor and DWR	DWR	Before and during construction
3.6-2 Potential effects from contaminant migration via existing groundwater monitoring wells	<p>Mitigation Measure 3.6-2.1 The Project design shall incorporate the groundwater monitoring well locations into the grading and access plans and design any construction at those locations to avoid adversely affecting the wells. Wells shall be avoided or capped and/or replaced as required by Section 13750 through 13755 (Article 2, Chapter 7, Division 7) of the California Water Code.</p>	DWR and Contractor	DWR	Before and during construction
3.6-6 Potential soil or water contamination from onsite equipment storage and fueling	<p>Mitigation Measure 3.6-6.1 DWR’s standard construction contract Section 01570 requires contractors to conduct fueling and lubrication of equipment in a manner that affords maximum protection against spills and evaporation. Consistent with this standard, the contractor for the Project shall be required to prepare an environmental protection plan, which shall include spill control and contaminant prevention components. The contractor shall be required to have spill kits on site and to clean up any spill as soon as reasonably possible.</p>	Contractor	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
<p>3.6-7 Potential Effects on human health due to the short-term use of aquatic approved herbicides prior to site construction</p>	<p>Mitigation Measure 3.6-7.1 Herbicides shall be applied under the supervision of a certified pesticide applicator. Certified pesticide applicators are trained to ensure that algaecides and aquatic herbicides are applied at rates consistent with label requirements and in a manner that avoids potential adverse effects including, effects to human health. Prior to herbicide application, all permits shall be in place, including USACE 404, RWQCB 401, the CDFW, Streambed Alteration Agreement, Agricultural Commission and the RWQCB NPDES permit, and/or any other relevant permits required by the federal, state, and local agencies.</p>	<p>Contractor</p>	<p>DWR</p>	<p>Before and during construction</p>

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing						
AIR QUALITY										
3.7-1 Generation of Criteria pollutant emissions that contribute to air quality violations	<p>Mitigation Measure 3.7-1.1</p> <p>The Project contractors shall implement the techniques listed in Table 3.7-8 below, to reduce impacts of ozone precursors such as NOx and ROG, and PM10 and PM2.5 emissions.</p> <p>Table 3.7-8. Techniques for Reducing Construction Equipment Exhaust</p> <table border="1" data-bbox="436 638 1245 1003"> <thead> <tr> <th data-bbox="436 638 548 690"></th> <th data-bbox="548 638 1245 690">Techniques</th> </tr> </thead> <tbody> <tr> <td data-bbox="436 690 548 862">1</td> <td data-bbox="548 690 1245 862">Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.</td> </tr> <tr> <td data-bbox="436 862 548 1003">2</td> <td data-bbox="548 862 1245 1003">Maintain all construction equipment in proper working condition according to manufacturer’s specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.</td> </tr> </tbody> </table>		Techniques	1	Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.	2	Maintain all construction equipment in proper working condition according to manufacturer’s specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.	Contractor	DWR	Before and during construction
		Techniques								
	1	Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.								
2	Maintain all construction equipment in proper working condition according to manufacturer’s specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.									
<p>Mitigation Measure 3.7-1.2</p> <p>Section 6.1 of the Yolo Solano Air Quality Management District (YSAQMD) CEQA handbook presents a list of feasible mitigation measures to control fugitive dust from construction sites. Common techniques for controlling dust (PM₁₀) focus on minimizing dispersal of earth materials during excavation, transport, and disposal activities. Watering and covering (e.g., tarps, surfactants, and vegetation) are frequently relied on to minimize dust at construction-sites. The Project contractors shall implement the following</p>	Contractor	DWR	Before and during construction							

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing																		
	<p>techniques for controlling dust (Table 3.7-9). The implementation details of these techniques shall be adjusted based on field conditions.</p> <p style="text-align: center;">Table 3.7-9. Techniques for Reducing Fugitive Dust</p> <table border="1" data-bbox="443 508 1245 1347"> <thead> <tr> <th data-bbox="443 508 728 548">Technique</th> <th data-bbox="728 508 976 548">Source Category</th> <th data-bbox="976 508 1245 548">Effective</th> </tr> </thead> <tbody> <tr> <td data-bbox="443 548 728 922">Water all active construction sites (including soil piles, graded areas, unpaved parking areas, staging areas, and access roads) to reduce fugitive dust. Frequency should be based on the type of operation, soil condition, and wind exposure.</td> <td data-bbox="728 548 976 922">Fugitive emissions from active, unpaved construction areas</td> <td data-bbox="976 548 1245 922">50%</td> </tr> <tr> <td data-bbox="443 922 728 995">Haul trucks shall maintain at least 2 ft of freeboard.</td> <td data-bbox="728 922 976 995">Spills from haul trucks</td> <td data-bbox="976 922 1245 995">90%</td> </tr> <tr> <td data-bbox="443 995 728 1206">Any haul trucks hauling dirt, sand, or loose materials that would be traveling along freeways or major roadways should be covered.</td> <td data-bbox="728 995 976 1206">Spills from haul trucks</td> <td data-bbox="976 995 1245 1206">90%</td> </tr> <tr> <td data-bbox="443 1206 728 1312">Limit vehicle speeds on unpaved roads to 15 mi per hour (MPH).</td> <td data-bbox="728 1206 976 1312">Unpaved roads</td> <td data-bbox="976 1206 1245 1312"></td> </tr> <tr> <td data-bbox="443 1312 728 1347">Apply chemical soil</td> <td data-bbox="728 1312 976 1347">Wind erosion from</td> <td data-bbox="976 1312 1245 1347">Up to 80%</td> </tr> </tbody> </table>	Technique	Source Category	Effective	Water all active construction sites (including soil piles, graded areas, unpaved parking areas, staging areas, and access roads) to reduce fugitive dust. Frequency should be based on the type of operation, soil condition, and wind exposure.	Fugitive emissions from active, unpaved construction areas	50%	Haul trucks shall maintain at least 2 ft of freeboard.	Spills from haul trucks	90%	Any haul trucks hauling dirt, sand, or loose materials that would be traveling along freeways or major roadways should be covered.	Spills from haul trucks	90%	Limit vehicle speeds on unpaved roads to 15 mi per hour (MPH).	Unpaved roads		Apply chemical soil	Wind erosion from	Up to 80%			
Technique	Source Category	Effective																				
Water all active construction sites (including soil piles, graded areas, unpaved parking areas, staging areas, and access roads) to reduce fugitive dust. Frequency should be based on the type of operation, soil condition, and wind exposure.	Fugitive emissions from active, unpaved construction areas	50%																				
Haul trucks shall maintain at least 2 ft of freeboard.	Spills from haul trucks	90%																				
Any haul trucks hauling dirt, sand, or loose materials that would be traveling along freeways or major roadways should be covered.	Spills from haul trucks	90%																				
Limit vehicle speeds on unpaved roads to 15 mi per hour (MPH).	Unpaved roads																					
Apply chemical soil	Wind erosion from	Up to 80%																				

Impact	California Environmental Quality Act (CEQA) Mitigation Measures			Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).	storage piles				
	Plant vegetative ground cover in disturbed areas as soon as possible.	Wind erosion from storage piles	5–99% (based on planting plan)			
	Cover inactive storage piles.	Wind erosion from storage piles	Up to 90%			
	Sweep streets if visible soil material is carried out from the construction site.	On-road entrained PM ₁₀	14%			
	Treat accesses to a distance of 100 ft from the paved road with a 6- to 12-in layer of wood chips or mulch.	Mud/dirt carryout on-road entrained PM ₁₀	27–33%			
	Treat accesses to a distance of 100 ft from the paved road with a 6-in layer of gravel.	Mud/dirt carryout on-road entrained PM ₁₀	42–52%			
	Note: The effectiveness of two or more mitigation measures that address the same source of emissions would not be the sum of both measures.					
	Mitigation Measure 3.7-1.3 DWR and/or its contractor shall monitor construction activities throughout the construction period and pay an off-site mitigation fee. Construction					

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>activities data will be collected, emissions associated with construction activities will be calculated, and these data will be reported to the Yolo Solano Air Quality Management District (YSAQMD). The specific details of construction monitoring and reporting will be determined in consultation with the YSAQMD. Construction activities data will include, but are not limited to the following items:</p> <ul style="list-style-type: none"> • Barges – distance traveled by loaded and unloaded vessels, horsepower, idling time, fuel use and fuel type. • Construction equipment – type and number, horsepower, hours of operation. • Haul trucks (heavy-duty trucks) – number of trips, and total trip distance. • Construction workers - number of construction workers per day. <p>YSAQMD shall collect the construction activity and emissions reports for record keeping and monitoring purposes. The total offset mitigation fee will be calculated based on actual construction activities. DWR will work in coordination with YSAQMD to assess the specific mechanisms associated with construction monitoring, emission calculations, and payment logistics.</p>			
<p>3.7-2 Conflict with or obstruct applicable general plans or regional air quality plans</p>	<p>See Mitigation Measure 3.7-1.1 (as set forth in Impact 3.7-1 <i>Generation of Criteria pollutant emissions that contribute to air quality violations</i> above)</p> <p>See Mitigation Measure 3.7-1.3 (as set forth in Impact 3.7-1 <i>Generation of Criteria pollutant emissions that contribute to air quality violations</i> above)</p>	<p>Contractor</p>	<p>DWR</p>	<p>Before and during construction</p>

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
MINERAL RESOURCES – No mitigation required				
NOISE				
3.10-1 Potential for short-term noise disturbance to nearby residents	Mitigation Measure 3.10-1.1 The following mitigation measure would reduce the noise impact to residences in the Project area to a less than-significant level: <ol style="list-style-type: none"> 1. The construction contractor shall locate stationary noise sources as far from existing residences as possible. 2. The DWR shall identify a disturbance coordinator, and the name and phone number of this person shall be conspicuously posted at the Project site in an area that can be accessed by the general public. If noise complaints are received, the disturbance coordinator shall respond to the complaints and shall take the steps necessary to mitigate the problem. 	Contractor	DWR	Before and during construction
AESTHETICS – No mitigation required				
AGRICULTURAL RESOURCES – No mitigation required				
CULTURAL RESOURCES				
3.13-2 Inadvertent discovery of a shipwreck during in-water construction	Mitigation Measure 3.13-2.1 The title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC (PRC Section 6313[a]). In the case of an inadvertent discovery of a submerged shipwreck or related artifacts, all work must cease in the immediate vicinity of the find and DWR cultural resources staff and the USACE archaeologist shall be notified immediately in order to initiate consultation with the CSLC staff within 2 business days of such discovery pursuant to 36 CFR 800.13 (b)(3). PRC 6313 (c) states any submerged historic resource remaining in state waters for more	Contractor	DWR	During construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>than 50 years shall be presumed to be archaeologically or historically significant. If the DWR and USACE archaeologist, in consultation with the CSLC staff, determine that a historical resource may be present within the Project site, DWR shall retain the services of a qualified maritime archaeological consultant. The maritime archaeological consultant would recommend whether the discovery is an historical/archaeological resource that retains sufficient integrity and is of potential historical or scientific significance. The maritime archaeological consultant also would recommend as to what action, if any, is warranted, and would document all recommendations in writing. Based on this information, the USACE, in consultation with the CSLC, may require additional measures to be implemented by DWR. Measures might include preservation <i>in situ</i> of the historical resource or a data recovery program. The Project maritime archaeological consultant shall submit a Final Historical Resources Report to DWR, the USACE, and the CSLC staff. This report shall include an evaluation of the historical significance, with a description of the archaeological and historical research methods employed in any archaeological data recovery program undertaken.</p>			
<p>3.13-3 Impacts to unknown archaeological resources</p>	<p>Mitigation Measure 3.13-3.1 To reduce potential impacts to unknown archaeological resources, the following measures shall be implemented before the start of ground-disturbing activities:</p> <ol style="list-style-type: none"> 1. A DWR archaeologist shall conduct cultural resources awareness training for contractors and staff prior to the start of construction. 2. If historical or unique archaeological resources are discovered during construction, work must be halted within 100 ft. of the find until a qualified archaeologist meeting the Secretary of the Interior’s 	<p>DWR and Contractor</p>	<p>DWR</p>	<p>Before and during construction</p>

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>Standards for archaeologists (NPS 1997) visits the site and assess the significance of the resource. Work may continue on other parts of the Project while evaluation and mitigation takes place (CEQA Guidelines Section 15064.5 [f]). After the assessment is completed, the archaeologist shall submit a report describing the significance of the discovery with treatment recommendations. If the find is determined to be an historical or unique archaeological resource, time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available.</p> <p>3. Should unique archaeological resources be found, the resources shall be treated in compliance with Public Resources Code Section 21083.2. If the Project can be modified to accommodate avoidance, preservation of the resource is the preferred alternative. Data recovery of the damaged portion of the resource also shall be performed pursuant to PRC Section 21083.2(d).</p>			
<p>3.13-4 Impacts to unknown human burials</p>	<p>Mitigation Measure 3.13-4.1</p> <p>If human remains are found, such remains are subject to the provisions of California Health and Safety Code (HSC) Section 7050.5-7055. The requirements and procedures shall be implemented, including immediately stopping work in the vicinity of the find and notification of the Solano County Coroner. The process for notification of the California NAHC and consultation with the individual(s) identified by the NAHC as the “most likely descendant” is set forth in Section 5097.98 of the California Public Resources Code. Work can restart after the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains.</p>	<p>DWR and Contractor</p>	<p>DWR</p>	<p>Before and during construction</p>

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
LAND USE AND PLANNING/POPULATION AND HOUSING – No mitigation required				
PUBLIC SERVICES				
3.15-1 Potential Conflict with existing police and fire protection services	See Mitigation Measure 3.17-1.1 (as set forth in Impact 3.17-1 <i>Potential traffic impacts during construction</i> below)	Contractor	DWR	Before and during construction
RECREATION				
3.16-1 Short-term construction related impacts to recreational boating in Miner Slough and Arrowhead Harbor Marina	Mitigation Measure 3.16-1.1 Speed limit zones or channel closure shall be established by DWR during in-water construction along Miner Slough. The Project construction contractor shall post and distribute notifications at Arrowhead Harbor Marina and other local boating access sites of any scheduled imposition of boating safety speed limits or channel closure 14–30 days in advance of water-based construction work.	Contractor	DWR	Before, during and after construction
TRANSPORTATION AND TRAFFIC				
3.17-1 Potential traffic impacts during construction	Mitigation Measure 3.17-1.1 The construction contractor shall submit a traffic control plan to DWR for review and approval that shall limit impacts to adjacent landowners and businesses. The control plan shall include temporary measures, such as the following: 1. Advance public notification signage at areas that might be affected by traffic going to the Project site prior to the start of construction	Contractor	DWR	Before and during construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
	<p>activities, to alert drivers to pending construction work and traffic restrictions.</p> <ol style="list-style-type: none"> 2. Notification to Arrowhead Harbor Marina, the Port of West Sacramento, and property owners adjacent to haul routes used for site access during construction, 10 days prior to initiation of construction traffic. 3. Temporary railing, barricades, crash cushions, signage, lighting and flashing lights, pavement markings, and the service of qualified flaggers; all as required to provide for the safe passage of public traffic. 4. Other safety measures as required to control vehicular and pedestrian traffic. 			
	<p>Mitigation Measure 3.17-1.2 Before- and after-Project construction an assessment of road surface conditions, and photographic or videographic documentation, will be conducted by DWR and its contractor at the following locations, if used for site access during construction: segments of Courtland Road and/or Teal Road, Road 107, Holland Road, as well as the DWSC levee. If local road conditions deteriorate during construction, DWR or its construction contractor will implement necessary repairs to bring the road up to pre-Proposed Project construction conditions.</p>	Contractor	DWR	Before and after construction

Impact	California Environmental Quality Act (CEQA) Mitigation Measures	Primary Implementation Responsibility	Primary Monitoring Responsibility	Anticipated Mitigation Timing
UTILITIES				
3.18-2 Potential for adverse effects on existing utilities	Mitigation Measure 3.18-2.1 In order to reduce the potential for adverse effects to existing utilities, the following actions will be taken by DWR and its contractor prior to any ground disturbing activities: <ol style="list-style-type: none"> 1. Coordinate with local utility owners to discuss the potential for the existence of underground utilities within the Project area. 2. If utility owners verify the potential for underground utilities, a qualified person shall perform a subsurface survey to identify the exact location of underground utilities within the Project area, so those utilities may be avoided. If the utilities cannot be avoided, they shall be removed in a manner consistent with CalOSHA Title 8 Sections 1539 through 1541.1. 	DWR and Contractor	DWR	Before and during construction