

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

This table presents a “crosswalk” between Delta Plan mitigation measures and the project-specific environmental commitments and/or mitigation measures that demonstrate compliance with, or effective substitution for, the Delta Plan mitigation measures.

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
Water Resources		
3-1	<ol style="list-style-type: none"> For construction of new facilities, all typical construction mitigation measures shall be required. Typical mitigation measures include the following construction-related Best Management Practices (BMPs): <ul style="list-style-type: none"> Gravel bags, silt fences, etc., shall be placed along the edge of all work areas in order to contain particulates prior to contact with receiving waters. All concrete washing and spoils dumping shall occur in a designated location. Construction stockpiles shall be covered in order to prevent blowoff or runoff during weather events. Severe weather event erosion control materials and devices shall be stored onsite for use as needed. Soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, and waste management/materials pollution control. Apply other BMPs as determined necessary by the regulating entity (city, county). Any new facility with introduced impervious surfaces shall include stormwater control measures that are consistent with the Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System (NPDES) municipal stormwater runoff requirements. The stormwater control measures shall be designed and implemented to reduce the discharge of stormwater pollutants to the maximum extent practical. Stormwater controls such as bioretention facilities, flow-through planters, detention basins, vegetative swales, covering pollutant sources, oil/water separators, and retention ponds shall be designed to control stormwater quality to the maximum extent practical. Mitigate sediment contaminant bioavailability impacts through (a) the exclusion of bird use or nesting areas from areas that may have excessive selenium or mercury; (b) minimization of methylmercury 	<p>1,2. DWR will implement Mitigation Measure BIO-8. This measure will require that DWR monitor turbidity levels in West False River during in-water activities, including placement of rock fill material and any major maintenance. Monitoring shall be conducted by measuring upstream and downstream of the disturbance area to ensure compliance with the <i>Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins</i> (Central Valley Regional Water Board 2019).</p> <p>Additionally, DWR will implement Mitigation Measure BIO-9, Prepare and Implement a Water Quality Monitoring Plan. Under this mitigation measure, DWR shall develop and implement a water quality monitoring plan to assess the effects of the proposed project on flow and water quality throughout the Delta. Monitoring data shall be provided by strategically placed stations within the project area installed during the 2015 EDB project and the three additional stations that would be installed as part of the drought salinity barrier project. DWR may also use data from other existing and recently upgraded stations throughout the Delta.</p> <p>DWR shall monitor flow, stage, water velocity, water temperature, specific conductance, turbidity, chlorophyll, nutrients, bromide, organic carbon, pH, and dissolved oxygen. Surface water samples for cyanoHAB-associated parameters (including extracted chlorophyll, preserved sample for microscopic enumeration of phytoplankton community composition including cyanoHAB species, and recording of visual observation of <i>Microcystis</i> according to Environmental Monitoring Program methods) will be collected from Stations D-19 and BET while the barrier is in place.</p> <p>The water quality monitoring plan shall outline the methodology for producing the following elements:</p> <ul style="list-style-type: none"> Water quality data from new monitoring sites and augmentation of existing sites. Monthly water quality summaries. A final report on project effects on water quality and development of cyanoHABs. <p>Additionally, DWR will implement a series of protective environmental measures as part of the proposed project. One of these measures is to prepare and implement a water quality control plan before the start of ground-disturbing construction activities. The plan will be developed with site-specific measures to</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>production; and/or (c) maximization of contaminant degradation before discharge of water, as appropriate.</p> <p>For any construction activities with the potential to cause in-river sediment disturbance associated with construction:</p> <ol style="list-style-type: none"> 5. Apply BMPs to avoid or reduce temporary increases in suspended sediment. These BMPs for in-channel construction and levee disturbance may include, but are not limited to, silt curtains, cofferdams, the use of environmental dredges, erosion control on all inward levee slopes, and various levee-stabilization techniques, including revegetation. All construction sites will include preparation of a Storm Water Pollution Prevention Plan and BMPs designed to capture spills and prevent erosion to the waterbody. Turbidity shall be monitored up- and downstream of construction sites as a measure of impact. 6. Apply bank stabilization BMPs, as needed, for any in-channel disturbance, such as: <ul style="list-style-type: none"> • A 100-foot vegetative or engineered buffer shall be maintained between the construction zone and surface water body. • Native and annual grasses or other vegetative cover shall be established on construction sites immediately upon completion of work causing disturbance, to reduce the potential for erosion close to a waterway or water body. 	<p>control erosion, reduce the likelihood of spills, and control sedimentation, dust, and runoff. The plan will identify the hazardous materials to be used during construction; describe measures to prevent, control, and minimize the spillage of hazardous substances; describe transport, storage, and disposal procedures for these substances; and outline procedures to be followed in case of a spill of a hazardous material. The plan will require that hazardous and potentially hazardous substances being stored onsite be kept in securely closed containers located away from drainage courses, storm drains, and areas where stormwater is allowed to infiltrate. It will also stipulate procedures to minimize hazards during on-site fueling and servicing of construction equipment. Finally, the plan will require that users of adjacent land be notified immediately of any substantial spill or release.</p> <p>The measures in the plan will be implemented to minimize the potential for erosion and sedimentation during barrier construction and removal.</p> <ol style="list-style-type: none"> 3. The project will not result in construction of a new facility with introduced impervious surfaces. 4. The project is not expected to result in sediment contaminant bioavailability impacts. 5. DWR will implement Mitigation Measure BIO-8. This measure will require that DWR monitor turbidity levels in West False River during in-water activities, including placement of rock fill material and any major maintenance. Monitoring shall be conducted by measuring upstream and downstream of the disturbance area to ensure compliance with the <i>Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins</i> (Central Valley Regional Water Board 2019). 6. DWR will implement Mitigation Measure HYDRO-1. This measure will require that DWR monitor tidal velocities in West False River, Fisherman's Cut, and Franks Tract and the levees around Bradford Island (RD 2059) and Jersey Island (RD 830) while the West False River drought salinity barrier is in place (under all three installation scenarios). Should DWR discover levee scouring of concern that is a result of the drought salinity barrier, DWR shall immediately consult with RD 2059 and/or RD 830 as expeditiously as possible, as necessary, to develop a plan on corrective measures. <p>Under Installation Scenario 2, DWR shall regularly conduct bathymetric surveys to monitor for potential scour at the riverbed, collect inclinometer measurements on Bradford Island to ensure there is no observed movement of the adjacent levee, and monitor velocity measurements around the barrier while the notch is in place. Corrective measures, such as early filling of the notch, shall be implemented as expeditiously as possible if the stability of the barrier or levees may be compromised by the scour.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
3-2	<p>Prior to construction, a survey should be made of all wells located adjacent to the construction site to determine location and depths of the wells and the groundwater surface. During construction of any project that requires dewatering of groundwater, monitoring wells should be installed adjacent to the groundwater dewatering wells or pumps. If the adjacent groundwater declines in a manner that would adversely affect adjacent wells following implementation of dewatering, the dewatering operations should be halted until the following measures are implemented:</p> <ul style="list-style-type: none"> • Install sheet piles to reduce the area influenced by shallow groundwater level declines. • In case sheet piles are not an option and domestic well yields are affected, water supplies shall be trucked in to satisfy the well user's water supply needs. • If sheet piles are not effective and the impact on the well yield is important, such that the trucking in of water is not economically feasible, the affected well shall be deepened. Another option for a well that is deep enough would be to lower the pump bowl such that deepened water can be pumped out of the well. If these two options are not feasible, a new, deeper, replacement well shall be installed for groundwater production. 	<p>The proposed project would not extract groundwater, so mitigation measures related to dewatering are N/A.</p>
Biological Resources		
4-1	<ol style="list-style-type: none"> 1. Avoid, minimize, and compensate for reduction in area and/or habitat quality of sensitive natural communities, including wetlands, by doing the following: <ul style="list-style-type: none"> • Selecting project site(s) that would avoid sensitive natural communities, including jurisdictional wetlands and other waters, vernal pools, alkali seasonal wetlands, riparian habitats, and inland dune scrub. • Design, to the extent practicable, project elements to avoid effects on sensitive natural communities. • Replacing, restoring, or enhancing on a "no net loss" basis (in accordance with U.S. Army Corps of Engineers (USACE) and State Water Resources Control Board (SWRCB) requirements), wetlands and other waters of the United States and waters of the State that would be removed, lost, and/or degraded. 	<ol style="list-style-type: none"> 1. Barrier construction activities would affect open-water habitat in West False River and disturbed upland areas on the levees and the Jersey Island seepage berm. No riparian habitat or sensitive natural communities would be affected, and temporary fill placed in West False River would be removed. To reduce the potential for temporary impacts to habitat quality within the West False River, DWR would implement the following mitigation measures: <p>Mitigation Measure BIO-8: Conduct Turbidity Detection and Reduction Activities During In-Water Work.</p> <p>DWR shall monitor turbidity levels in West False River during in-water activities, including placement of rock fill material and any major maintenance. Monitoring shall be conducted by measuring upstream and downstream of the disturbance area to ensure compliance with the Basin Plan (Central Valley Regional Water Quality Control Board 2019). For Delta waters, the general objectives for turbidity apply, except during periods of stormwater runoff; turbidity of Delta waters shall not exceed 50 NTU. Exceptions to the Delta-specific objectives are considered when</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<ul style="list-style-type: none"> Where impacts to sensitive natural communities other than waters of the United States or State are unavoidable, compensating for impacts by restoring and/or preserving in-kind sensitive natural communities on-site, or off-site at a nearby site, or by purchasing in-kind restoration or preservation credits from a mitigation bank that services the project site and that is approved by the appropriate agencies, in consultation with applicable regulatory agencies (at ratios that offset temporal loss of habitat value). <ol style="list-style-type: none"> Implement advanced mitigation planning for ecosystem restoration prior to construction. Implement construction best management practices, including: <ul style="list-style-type: none"> Developing and implementing a Stormwater Pollution Prevention Plan (SWPPP). Minimizing soil disturbance, erosion, and sediment runoff from project site. Avoiding and minimizing contaminant spills. Minimizing visual and noise disturbance from construction activities. Conducting biological construction monitoring to ensure that implemented BMPs are effective. Restore areas temporarily affected by construction activities, including: <ul style="list-style-type: none"> Preparing restoration plan for temporary impacts sites for review by resource agencies. Minimizing soil disturbance and stockpiling topsoil for later use in any areas to be graded. Decompacting or amending soil if necessary before planting and use native species for revegetation. Restoring natural communities with similar or improved function from communities that were affected. If a project may result in conversion of oak woodlands, as identified in section 21083.4 of the Public Resources Code, one or more of the following mitigation measures shall be implemented: <ul style="list-style-type: none"> Conserve oak woodlands, through the use of conservation easements. 	<p>a dredging operation can cause an increase in turbidity. In this case, an allowable zone of dilution within which turbidity exceeding the limits can be tolerated will be defined for the operation and prescribed in a discharge permit.</p> <p>DWR contractors shall slow or adjust work to ensure that turbidity levels do not exceed those conditions described in the CWA Section 401 water quality certification issued by the State Water Resources Control Board. If slowing or adjusting work to lower turbidity levels is not practical or if thresholds cannot be met, DWR shall consult with the State Water Resources Control Board and permitting agencies to determine the most appropriate measures, including but not limited to altering construction methods while continuing turbidity monitoring, through use of physical in-water best management practices, or temporarily stopping work to minimize turbidity impacts to the maximum extent feasible.</p> <p>Mitigation Measure BIO-9: Prepare and Implement a Water Quality Monitoring Plan.</p> <p>DWR shall develop and implement a water quality monitoring plan to assess the effects of the proposed project on flow and water quality throughout the Delta. Monitoring data shall be provided by strategically placed stations within the project area installed during the 2015 EDB project and the three additional stations that would be installed as part of the drought salinity barrier project. DWR may also use data from other existing and recently upgraded stations throughout the Delta.</p> <p>DWR shall monitor flow, stage, water velocity, water temperature, specific conductance, turbidity, chlorophyll, nutrients, bromide, organic carbon, pH, and dissolved oxygen. Surface water samples for cyanoHAB-associated parameters (including extracted chlorophyll, preserved sample for microscopic enumeration of phytoplankton community composition including cyanoHAB species, and recording of visual observation of <i>Microcystis</i> according to Environmental Monitoring Program methods) will be collected from Station D-19 in Franks Tract while the barrier is in place.</p> <p>The water quality monitoring plan shall outline the methodology for producing the following elements:</p> <ul style="list-style-type: none"> Water quality data from new monitoring sites and augmentation of existing sites. Monthly water quality summaries.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<ul style="list-style-type: none"> Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees. Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of section 1363 of the Fish and Game Code. <p>6. An invasive species management plan shall be developed and implemented for any project whose construction or operation could lead to introduction or facilitation of invasive species establishment. The plan shall ensure that invasive plant species and populations are kept below preconstruction abundance and distribution levels. The plan shall be based on the best available science and developed in consultation with Department of Fish and Wildlife (DFW) and local experts, such as the University of California Extension, county agricultural commissioners, representatives of County Weed Management Areas (WMA), California Invasive Plant Council, and California Department of Food and Agriculture. The invasive species management plan will include the following elements:</p> <ul style="list-style-type: none"> Nonnative species eradication methods (if eradication is feasible) Nonnative species management methods Early detection methods Notification requirements Best management practices for preconstruction, construction, and post construction periods Monitoring, remedial actions and reporting requirements Provisions for updating the target species list over the lifetime of the project as new invasive species become potential threats to the integrity of the local ecosystems 	<ul style="list-style-type: none"> A final report on project effects on water quality and development of cyanoHABs. <p>Mitigation Measure BIO-10: Remove Invasive Aquatic Vegetation.</p> <p>The spread of invasive aquatic weeds is an issue throughout the Delta, regardless of the presence or absence of the West False River drought salinity barrier. While the barrier is in place, DWR shall coordinate with the Aquatic Invasive Plant Control Program of the California Department of Parks and Recreation, Division of Boating and Waterways, for the control of invasive aquatic weeds near the barrier that are covered by the control program. DWR shall coordinate with the Division of Boating and Waterways on implementation of treatment or removal strategies for covered invasive aquatic weeds near the barrier to the greatest extent practicable.</p> <p>Additionally, DWR shall acquire mitigation credits for temporary loss on shallow-water habitat as stated in the following mitigation measure:</p> <p>Mitigation Measure BIO-11: Mitigate the Loss of Designated Critical Habitat.</p> <p>DWR proposes to purchase 2.75 acres of habitat credits at an approved mitigation bank or develop or preserve equivalent habitat as compensatory mitigation acreage at a 1:1 ratio for temporary habitat loss (less than one year) associated with the footprint of the barrier installed at West False River for each installation occurrence. In the event the barrier installation occurs for greater than one year, mitigation at a ratio greater than 1:1 may be required in coordination with the regulatory agencies. If the barrier must be installed more than once, DWR proposes to purchase increased mitigation, not to exceed a total of 8.25 acres (3:1 ratio) of habitat credits, or to develop or preserve equivalent habitat. If credits are available, DWR's priority would be to purchase in-kind mitigation credits in the local vicinity of the barriers (e.g., North Delta Conservation Bank). If mitigation credits are not available locally, DWR would coordinate with CDFW, NMFS, and USFWS to purchase an appropriate number of out-of-kind credits in other locations (e.g., upstream in the Sacramento River), or conduct other habitat restoration or preservation activities to fully mitigate the temporary impacts associated with installation of the barrier.</p> <p>2. DWR would purchase mitigation bank credits for temporary impacts on shallow-water habitat associated with deployment of the rock barrier. As such, there would be no temporary net loss of aquatic habitat, because the banks would have already been established and authorized prior to</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>implementation of construction of the project (i.e., deployment of the rock barrier).</p> <p>3. DWR would implement construction BMPs through implementation of Mitigation Measure BIO-8. Additionally, DWR would implement a series of pre-construction biological surveys as follows:</p> <p>Mitigation Measure BIO-1: Avoid, Minimize, and Mitigate Impacts on Special-Status Plants.</p> <p>A qualified botanist shall conduct a botanical survey within the project area and immediate vicinity before barrier installation, following the survey guidelines established by the California Native Plant Society and CDFW to the extent feasible, given the timing of barrier installation.</p> <p>If special-status plants are identified, they shall be flagged and avoided if feasible. If Mason's lilaeopsis is identified within the project area and impacts cannot be avoided, DWR shall obtain a CESA Section 2081 incidental take permit. Issuance of an incidental take permit by CDFW would require that DWR implement species-specific avoidance and minimization measures and fully mitigate adverse project impacts, which may include purchasing credits from a mitigation bank, preparing and executing a relocation plan, or restoring suitable habitat for the species. All special-status plant observations will be reported to the CNDDDB.</p> <p>If special-status plant species other than Mason's lilaeopsis are identified within the project area and impacts cannot be avoided, a qualified biologist shall assess the feasibility of salvaging and transplanting individual affected plants or seeds. If transplanting is not feasible, restoration of the affected site to preexisting conditions following project completion would allow for recolonization of the habitat.</p> <p>Mitigation Measure BIO-2: Conduct Focused Preconstruction Surveys for Elderberry Shrubs.</p> <p>Focused preconstruction surveys for elderberry shrubs shall be conducted before work occurs within the project area. A minimum 165-foot buffer shall be established and maintained around elderberry plants that contain stems measuring 1 inch or greater in diameter at ground level, if any are observed within or in the vicinity of the project area, in accordance with the <i>Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle</i> (<i>Desmocerus californicus dimorphus</i>) (U.S. Fish and Wildlife Service 2017a).</p> <p>If feasible, a fenced or flagged avoidance area shall be established before the start of construction to protect all elderberry shrubs with stems 1 inch or greater at ground level located adjacent to the construction site</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>or rock stockpile or off-loading areas to prevent encroachment by construction workers and vehicles.</p> <p>If maintaining 165-foot protective buffers around all elderberry shrubs with a stem greater than 1 inch in diameter at ground level is infeasible, DWR shall consult with USFWS to determine whether specific site conditions warrant a reduced buffer or whether the work will result in take. DWR shall then obtain take authorization, implement minimization measures, and mitigate impacts in accordance with the <i>Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle</i> (<i>Desmocerus californicus dimorphus</i>) (U.S. Fish and Wildlife Service 2017a). Minimization measures may include but are not limited to maintaining the presence of a qualified biological monitor during all construction activities within 165 feet of the elderberry shrub, and refraining from the use of herbicides within the dripline of the shrub.</p> <p>Mitigation Measure BIO-3: Conduct Pre-activity Surveys and Construction Monitoring for Giant Garter Snake and Western Pond Turtle.</p> <p>The following measures shall be implemented for giant garter snake and western pond turtle in the vicinity of the drought salinity barrier site, the Weber off-loading and stockpile sites, and the locations of the proposed water quality monitoring stations:</p> <ul style="list-style-type: none"> • Pre-activity surveys for giant garter snake and potential refugia (i.e., burrows, soil cracks) shall be conducted by a USFWS- and CDFW-approved biologist within 72 hours before ground disturbance within the drought salinity barrier site, the Weber off-loading and stockpile sites, and the locations of the water quality monitoring stations. The biologist shall also survey along the access route. The pre-activity surveys shall include concurrent surveying for western pond turtle. • A biological monitor shall be present during all daytime project activities occurring at West False River, with the following exception. The presence of a full-time monitor is not required when rock is being placed in or removed from the middle of West False River and when no project activities are occurring along the banks of the drought salinity barrier. • Exclusion fencing shall be installed, as feasible, along the edge of the construction and staging footprint at the barrier site and at the Weber off-loading and stockpile sites to prevent any giant garter snakes and western pond turtles from entering the work area. A biological monitor shall be present during installation of the fencing.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<ul style="list-style-type: none"> • Clearing of vegetation shall be limited to the minimum area necessary for barrier installation. • Speed limits along access roads shall be limited to 15 miles per hour. Speed limits overland shall be limited to 5 miles per hour. Drivers shall look for snakes and turtles on the roadways and overland areas. <p>If giant garter snake is observed in the work area, the qualified biologist shall stop all work until the snake is out of the immediate work area. The snake shall be allowed to leave on its own, and the biologist shall remain in the area until the biologist deems his or her presence no longer necessary to ensure that the snake will not be harmed. If authorized by USFWS and CDFW, the biologist shall relocate the giant garter snake to a designated location along West False River, downstream of construction activities. The relocation plan shall be submitted to USFWS and CDFW before the start of the project. Any snakes to be relocated shall be moved according to the relocation plan.</p> <ul style="list-style-type: none"> • If a western pond turtle is observed in the work area, the biologist shall halt work to allow the turtle to leave on its own accord, or to relocate the turtle outside of the construction footprint, but within suitable habitat. • All giant garter snake observations shall be reported to USFWS via email and/or telephone within one working day. • All observations of giant garter snakes and western pond turtles shall be recorded in the CNDDDB. • Any equipment remaining on site overnight shall be stored in designated staging areas. Equipment parked overnight or for more than one hour on warm days shall be inspected before operation to ensure that no giant garter snakes have found shelter under the equipment. • After removal of the drought salinity barrier, any debris associated with the construction activities shall be removed and all temporarily disturbed areas shall be restored to pre-project conditions. • Pre- and post-construction photo documentation shall be submitted to USFWS once the site is restored to preexisting conditions after removal of the barrier. <p>Mitigation Measure BIO-4: Conduct Focused Surveys for Active Nests of Migratory Birds and Raptors.</p> <p>Focused surveys for active nests of migratory birds and raptors, including white-tailed kite and red-tailed hawk, shall be conducted by a</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>qualified biologist within a 500-foot buffer around the drought salinity barrier site and the water quality monitoring stations. Surveys shall be conducted within 10 days before the start of project activities that are to occur during the nesting season (February 1–August 31). All special-status nesting bird observations will be reported to the CNDDDB.</p> <p>If an active migratory bird or raptor nest is found near the construction footprint, the biologist shall develop appropriate measures, including but not limited to implementing a protective buffer or minimizing certain work activities in the vicinity, to avoid disturbance of the nest until it is no longer active.</p> <p>Mitigation Measure BIO-5: Conduct Preconstruction Swainson's Hawk Surveys.</p> <p>A qualified biologist shall conduct preconstruction Swainson's hawk surveys following the <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (Swainson's Hawk Technical Advisory Committee 2000) or other current protocols. The Swainson's Hawk Technical Advisory Committee recommends conducting three surveys within the two recommended windows immediately before the start of construction activities, excluding Period IV. (Period IV nest monitoring is recommended only if a nest is found in Period III.) The survey periods are as follows:</p> <ul style="list-style-type: none"> • Period I: January through March. • Period II: March 20 through April 5 • Period III: April 5 through April 20 • Period IV: April 21 through June 10 • Period V: June 10 through July 30 <p>Therefore, if construction is anticipated to begin April 1, the biologist shall conduct preconstruction surveys during Period I. Even though the April 1 start date occurs within Period II, the biologist shall conduct surveys during the early part of Period II, to ensure that surveys are completed during both survey periods. Surveys shall be conducted within 0.5 mile of the barrier site, where access is permitted. Results of the preconstruction surveys shall be provided to CDFW within 48 hours of the final survey. If active Swainson's hawk nests are present within 0.5 mile of construction activities, DWR will consult with CDFW to ensure that construction activities do not result in take of Swainson's hawk. All Swainson's hawk nest observations will be reported to the CNDDDB.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>All active Swainson's hawk nests within 0.25 mile of the barrier site (the area in which adverse effects are anticipated to occur) shall be monitored during construction activities. Monitoring requirements shall generally be based on the proximity of construction activities to the nest site, as described below. These requirements may be adjusted based on observed behavior patterns and on the response of the nesting pair and/or their young to construction activities. Potential adjustments shall be evaluated on a case-by-case basis and in consultation with CDFW.</p> <ul style="list-style-type: none"> • Where a Swainson's hawk nest occurs within 150 meters (approximately 492 feet) of construction, a biological monitor shall monitor the nesting pair during all construction hours to ensure that the hawks are exhibiting normal nesting behavior. • Where a Swainson's hawk nest occurs within 150–800 meters (approximately 492–2,625 feet) of construction, a biological monitor shall observe the nest one day per week for a minimum of 3 hours to ensure that the hawks are exhibiting normal nesting behavior and to check the status of the nest. <p>If personnel must approach closer than 25 meters (approximately 80 feet) from an active nest tree for more than 15 minutes while adults are brooding, the nesting adults shall be monitored for signs of stressed behavior. If stressed behavior is observed, personnel shall leave until the behavior normalizes. If personnel must approach closer than 50 meters (approximately 165 feet) for more than 1 hour, the same requirement applies. All personnel outside vehicles shall be restricted to a distance greater than 100 meters (approximately 330 feet) from the nest tree unless construction activities require them to be closer, and the personnel shall remain out of the line of sight of the nest during work breaks.</p> <p>If a biological monitor determines that a nesting Swainson's hawk is significantly disturbed by project activities, to the point that nest abandonment is likely, the biological monitor shall have the authority to immediately stop project activity and work shall cease until the threat has subsided.</p> <p>If an active nest is present within 0.5 mile of the barrier site during barrier construction and project activities result in nest failure, DWR shall provide mitigation to compensate for this potential impact. The circumstances under which compensation will be provided will depend on local conditions, such as distance from the nest to the barrier site, baseline human activity levels in the vicinity of the nest, and observed behavior of the nesting pair, and shall be determined in consultation with</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>CDFW. If a nest is abandoned and the nestlings do not survive as a result of project activities, DWR shall provide compensation for this loss. The appropriate amount and nature of the compensation shall be determined in consultation with and approved by CDFW, based on the specific circumstances of the impact, and all mitigation shall be implemented in accordance with the incidental take permit issued for the project. Potential compensation measures may include permanently protecting and managing habitat for Swainson's hawk at a mitigation bank, contributing to a Swainson's hawk conservation fund, or promoting the long-term conservation of the species through other feasible means.</p> <p>Mitigation Measure BIO-6: Conduct a Burrowing Owl Habitat Assessment.</p> <p>A qualified biologist shall conduct an assessment of burrowing owl habitat suitability at the barrier site and (if applicable) the Rio Vista and Weber off-loading and stockpile sites. The assessment shall evaluate the area subject to direct impact, as well as adjacent areas within 150–500 meters (approximately 490–1,640 feet), where access is not prohibited due to private property, depending on the potential extent of the indirect impact. Based on the habitat assessment, one of these measures would be applicable:</p> <ul style="list-style-type: none"> • If suitable habitat, but no sign of burrowing owl presence, is observed during the habitat assessment, surveys and reporting shall be conducted in accordance with Appendix D of CDFW's <i>Staff Report on Burrowing Owl Mitigation</i> (California Department of Fish and Wildlife 2012). At a minimum, an initial take avoidance survey shall be conducted no less than 14 days before stockpiling activities begin and a second survey shall be conducted within 24 hours before activities begin. • If a sign of burrowing owl presence is observed during the habitat assessment, the full survey protocol shall be implemented, to the extent feasible, depending on the timing of project implementation and stockpiling activities. The full survey protocol involves conducting four surveys during the breeding season and four surveys during the nonbreeding season, and conducting three or more daytime survey visits at least three weeks apart during the peak of breeding season from April 15 to July 15. All observations of burrowing owl will be reported to the CNDDDB. <p>If any occupied burrows are observed, DWR shall develop and implement avoidance and minimization measures, including but not limited to establishing protective buffers, minimizing the use of certain</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier																			
		<p>equipment, and incorporating the presence of a full-time monitor during work activities, in consultation with CDFW. CDFW guidance for buffer distances for burrowing owl, which vary depending on time of year and level of disturbance, are presented in Table 3.3-3. Reduced buffers for burrowing owl may be implemented if recommended by the monitoring biologist, based on the nature of the activity, and if approved by CDFW.</p> <p style="text-align: center;">TABLE 3.3-3 RECOMMENDED RESTRICTED ACTIVITY DATES AND SETBACK DISTANCES BY LEVEL OF DISTURBANCE FOR BURROWING OWLS</p> <table><tr><th rowspan="2">Time of Year</th><th colspan="3">Distance of Disturbance from Occupied Burrows (feet)</th></tr><tr><th>Low Disturbance</th><th>Medium Disturbance</th><th>High Disturbance</th></tr><tr><td>April 1 to August 15</td><td>600</td><td>1,500</td><td>1,500</td></tr><tr><td>August 16 to October 15</td><td>600</td><td>600</td><td>1,500</td></tr><tr><td>October 16 to March 31</td><td>150</td><td>300</td><td>1,500</td></tr></table> <p>NOTES: Low = Presence of maintenance staff on foot or in vehicles conducting work with light equipment (maintenance truck; all-terrain vehicles). Medium = Heavy equipment use with moderate noise levels (approximately 50–75 A-weighted decibels [dBA]). High = Heavy equipment with high noise levels (more than 75 dBA). SOURCE: California Department of Fish and Wildlife 2012</p> <p>A qualified biologist shall monitor the occupied burrows before and during stockpiling activities to inform the development of and confirm the effectiveness of these measures. If it is determined, in consultation with CDFW, that passive exclusion of owls from the stockpile area is an appropriate means of minimizing direct impacts, such exclusion shall be conducted in accordance with an exclusion and relocation plan developed by DWR in coordination with and approved by CDFW.</p> <p>Burrows occupied during the breeding season (February 1–August 31) shall be provided a protective buffer until a qualified biologist verifies through noninvasive means that either (1) the birds have not begun egg laying or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer shall depend on the distance from the nest to the project footprint, type and intensity of disturbance, presence of visual buffers, and other variables that could affect the susceptibility of the owls to disturbance.</p> <p>Mitigation Measure BIO-7: Conduct Preconstruction Bat Surveys.</p> <p>For all project activities planned in potential special-status bat roosting habitat, a qualified biologist shall conduct three evening emergence and acoustic surveys and at least one daytime visual survey for special-</p>	Time of Year	Distance of Disturbance from Occupied Burrows (feet)			Low Disturbance	Medium Disturbance	High Disturbance	April 1 to August 15	600	1,500	1,500	August 16 to October 15	600	600	1,500	October 16 to March 31	150	300	1,500
Time of Year	Distance of Disturbance from Occupied Burrows (feet)																				
	Low Disturbance	Medium Disturbance	High Disturbance																		
April 1 to August 15	600	1,500	1,500																		
August 16 to October 15	600	600	1,500																		
October 16 to March 31	150	300	1,500																		

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>status bats. Surveys will be completed at least 14 days prior to initiation of project construction.</p> <p>If no special-status bats are observed roosting, the qualified biologist shall provide a report to DWR for its records, and no additional measures are recommended.</p> <p>If special-status bats are found on-site, the qualified biologist shall identify the species, estimate numbers present, roost type, and roost status, and shall avoid disturbing special-status bats during surveys. DWR or the qualified biologist shall notify CDFW within 24 hours if special-status bats are found during surveys. All special-status bat observations will be reported to the CNDDDB.</p> <p>If special-status bats are found, the qualified biologist shall prepare and DWR shall implement a Special-Status Bat Mitigation and Monitoring Plan, which shall include: (1) an assessment of all project impacts to special-status bats, including noise disturbance during construction activities; (2) effective avoidance and minimization measures to protect special-status bats; (3) compensatory mitigation for permanent impacts to maternity roosts if affected.</p> <p>4. After removal of the drought salinity barrier, any debris associated with the construction activities shall be removed and all temporarily disturbed areas shall be restored to pre-project conditions. Pre- and post-construction photo documentation shall be submitted to USFWS once the site is restored to preexisting conditions after removal of the barrier.</p> <p>5. The project will not result in any conversion of oak woodland.</p> <p>6. DWR will implement Mitigation Measure BIO-10: Remove Invasive Aquatic Vegetation.</p>
4-2	<ol style="list-style-type: none"> 1. Select project site(s) that would avoid habitats of special-status species (which may include foraging, sheltering, migration and rearing habitat in addition to breeding or spawning habitat), and to the maximum extent practicable, (re)design project elements to avoid effects on such species. 2. Schedule construction to avoid special-status species' breeding, spawning, or migration locations during the seasons or active periods that these activities occur. 3. Conduct preconstruction surveys (by a qualified biologist) for special-status species in accordance with U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) and DFW survey methodologies and appropriate timing to determine 	<ol style="list-style-type: none"> 1. The project footprint size was developed to minimize the footprint of the rock barrier to the extent possible. The temporary nature of the installation of the salinity barrier also reduces the extent that the project would affect habitats of special-status species. Nonetheless, the project is located in an area where special-status species are expected to occur. Mitigation Measures BIO-1 through BIO-11 would be implemented to reduce the potential effects of the project on special-status species. 2. As discussed above, proposed construction and removal of the drought barrier have the potential to affect some listed fish species because of sediment disturbance and turbidity, underwater noise, and hydrodynamic effects leading to predation. Overall, however, it is concluded that the potential adverse effects of barrier construction and removal on Central

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>presence and locations of any special-status species and their habitat, and avoid, minimize, or compensate for impacts to special-status species in coordination with DFW and USFWS or NMFS.</p> <ol style="list-style-type: none"> Establish buffers around special-status species habitats to exclude effects of construction activities. The size of the buffer shall be in accordance with USFWS and DFW protocols for the applicable special-status species. If nest tree removal is necessary, remove the tree only after the nest is no longer active, as determined by a qualified biologist. Conduct construction monitoring (by qualified biologist) to ensure effectiveness of avoidance and minimization measures and implement remedial measures if necessary. When appropriate, relocate special-status plant and animal species or their habitats from project sites following USFWS, NMFS, and DFW protocols (e.g., for special-status plant species or elderberry shrubs). Where impacts to special-status species are unavoidable, compensate for impacts by restoring or preserving in-kind suitable habitat on-site, or off-site, or by purchasing restoration or preservation credits (in compliance with the California Endangered Species Act (CESA) and federal Endangered Species Act (ESA) for affected State- or federally-listed species from a mitigation bank that serves the project site and that is approved by the appropriate agencies, in consultation with the appropriate regulatory agencies (at ratios that offset the temporary loss of habitat value). 	<p>Valley spring-run Chinook salmon, Sacramento River winter-run Chinook salmon, and Central Valley steelhead would be limited for the following reasons:</p> <ul style="list-style-type: none"> Construction and removal would avoid the peak occurrence periods of listed juvenile salmonids in the Action Area. Barrier notching activities would be spatially limited relative to potential areas in which species occur in the Delta. <p>Effects on delta smelt are expected to be reduced for the following reason:</p> <ul style="list-style-type: none"> Construction and removal are spatially limited relative to the potential areas in which the species occurs. The effects would be temporary (e.g., in 2015 the total in-water construction period was around 38 days, in 2021 in-water construction was only 20 days, and the total removal period would be up to 90 days, notch opening and closure activities would take approximately one week each. <ol style="list-style-type: none"> DWR would implement the following mitigation measures that pertain to preconstruction surveys: <ul style="list-style-type: none"> Mitigation Measure BIO-1: <i>Avoid, Minimize, and Mitigate Impacts on Special-Status Plants.</i> Mitigation Measure BIO-2: <i>Conduct Focused Preconstruction Surveys for Elderberry Shrubs.</i> Mitigation Measure BIO-3: <i>Conduct Pre-activity Surveys and Construction Monitoring for Giant Garter Snake and Western Pond Turtle.</i> Mitigation Measure BIO-4: <i>Conduct Focused Surveys for Active Nests of Migratory Birds and Raptors.</i> Mitigation Measure BIO-5: <i>Conduct Preconstruction Swainson's Hawk Surveys.</i> Mitigation Measure BIO-6: <i>Conduct a Burrowing Owl Habitat Assessment.</i> Mitigation Measure BIO-7: <i>Conduct Preconstruction Bat Surveys.</i> In the event species-status species habitat is discovered during preconstruction surveys, the applicable survey buffer would be implemented. For example, per Mitigation Measure BIO-2: Conduct Focused Preconstruction Surveys for Elderberry Shrubs, a minimum 165-foot buffer shall be established and maintained around elderberry plants that contain stems measuring 1 inch or greater in diameter at ground level, if any are

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>observed within or in the vicinity of the project area, in accordance with the <i>Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle</i> (<i>Desmocerus californicus dimorphus</i>) (U.S. Fish and Wildlife Service 2017a).</p> <p>5. A biologist will be present to ensure the mitigation measures to protect special-status species are functioning as intended. For example, under Mitigation Measure BIO-6: Conduct a Burrowing Owl Habitat Assessment, a qualified biologist shall monitor the occupied burrows before and during stockpiling activities to inform the development of and confirm the effectiveness of buffer measures. Another example is for Mitigation Measure BIO-5: Conduct Preconstruction Swainson's Hawk Surveys, where if a biological monitor determines that a nesting Swainson's hawk is significantly disturbed by project activities, to the point that nest abandonment is likely, the biological monitor shall have the authority to immediately stop project activity and work shall cease until the threat has subsided.</p> <p>6. Under Mitigation Measure BIO-1: Avoid, Minimize, and Mitigate Impacts on Special-Status Plants, if qualified biologist shall assess the feasibility of salvaging and transplanting individual affected plants or seeds. If transplanting is not feasible, restoration of the affected site to preexisting conditions following project completion would allow for recolonization of the habitat.</p> <p>7. DWR will implement Mitigation Measure BIO-11: Mitigate the Loss of Designated Critical Habitat to account for temporal loss of shall-water habitat during deployment of the rocker barrier.</p>
4-3	<ol style="list-style-type: none"> 1. Select project site(s) that would avoid a substantial reduction in fish and wildlife species habitat. 2. To the maximum extent practicable, design project elements to avoid effects that would lead to a substantial loss of fish and wildlife habitat. 3. Replace, restore, or enhance habitats for fish and wildlife species that would be lost. 4. Where substantial loss of habitat for fish and wildlife species is unavoidable, compensate for impacts by preserving in-kind habitat. 	<ol style="list-style-type: none"> 1. There would be no permanent loss of fish and wildlife species habitat because the barrier deployment would be temporary. DWR will implement Mitigation Measure BIO-11: Mitigate the Loss of Designated Critical Habitat to account for temporal loss of shallow-water habitat during deployment of the drought salinity barrier. 2. Refer to Section 3.3, <i>Biological Resources</i>, in the DEIR for all the mitigation measures that will be implemented to reduce the effect of the project on fish and wildlife. 3-4. DWR will implement Mitigation Measure BIO-11: Mitigate the Loss of Designated Critical Habitat to account for the temporal loss of shallow-water habitat during deployment of the rock barrier.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
4-4	<ol style="list-style-type: none"> 1. Protect habitat for migratory waterfowl and shorebirds by expanding existing wildlife refuges and management areas, and establishing new ones in or near wetland areas used by migratory waterfowl and shorebirds. 2. Protect, restore and enhance connectivity of habitats, including but not limited to wetland and riparian habitats that function as migration corridors for wildlife species. Habitat restoration might be accomplished by establishing suitable hydrology or other physical conditions for desirable vegetation, planting desirable vegetation, fencing and managing grazing, and other means. 3. Protect migratory pathways for migratory aquatic species such as salmon, steelhead, and sturgeon including those that use Delta tributaries and floodplain habitats by screening new diversions, and screening existing diversions and removing existing migration barriers if the specific proposed project/activity (e.g., increased intake volume through an existing unscreened diversion, new diversion, new barrier, new barrier near an existing unscreened diversion, etc.) exacerbates the negative effect on migratory aquatic species caused by the existing barrier or unscreened diversion. 4. Avoid or minimize alteration of flow patterns and water quality effects that could disrupt migratory cues for migratory aquatic species by implementing water management measures and establishing programs to reduce water pollution. 	<ol style="list-style-type: none"> 1. N/A. The project will not affect any habitat for migratory waterfowl or shorebirds. 2. The deployment of the drought salinity barrier at West False River will be temporary, minimizing the effects of disruption in habitat connectivity for wildlife, specifically special-status fish. 3. N/A. The project does not involve any modifications to existing water diversion or construction of new diversions. 4. DWR will ensure protection of water quality through implementation of Mitigation Measure BIO-8: Conduct Turbidity Detection and Reduction Activities During In-Water Work and Mitigation Measure BIO-9: Prepare and Implement a Water Quality Monitoring Plan. These measures will help to protect conditions for migratory aquatic species.
4-5	Prior to construction, evaluate impacts to trees or other biological resources protected by local policies and ordinances, and abide by any permit requirements associated with these policies and ordinances.	Although DWR, as a State agency, is not subject to local regulations without legislative consent, DWR would implement the proposed project in a manner that would not conflict with applicable local regulations and general plan policies adopted for the purpose of avoiding or mitigating environmental effects.
Delta Flood Risk		
5-1	<ol style="list-style-type: none"> 1. Prepare a drainage or hydrology and hydraulic study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of Federal Emergency Management Agency (FEMA), USACE, state Department of Water Resources (DWR), Central Valley Flood Protection Board (CVFPB), as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, 	<ol style="list-style-type: none"> 1, 2. The proposed project would be in place potentially from mid to late April (construction in West False River would begin no sooner than April 1 and full removal would occur by November 30). Because of low Sierra Nevada snowpack and excess storage capacity in upstream reservoirs during drought conditions, and the lack of historic flooding from high flows before November 30 under such conditions, only a minimal chance would exist for flood flows to occur in the Delta before removal of the proposed barrier. The proposed barrier would present a minimal risk of impeding or directing flood flows.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>DWR, and CVFPB. The study would identify potential increases in flood risks, including those that may result from new facilities.</p> <ol style="list-style-type: none"> Provide temporary drainage bypass facilities that would reroute drainage around, along, or over the Proposed Project facilities and construction sites. The temporary bypass facilities would be designed in accordance with the results and recommendations of a drainage or hydrologic and hydraulic study and would be in place and fully functional until long-term replacement facilities are completed. Provide onsite stormwater detention storage at construction and project facility sites that would reduce project-caused short- or long-term increases in drainage runoff. The storage space placement and capacity would be designed based on the drainage or hydrologic and hydraulic study. Based on the results of the drainage or hydrologic and hydraulic study, arrange the length of any stockpiles or other construction features in the direction of the floodplain flow to maximize surface flows under flood flow conditions. At in-stream construction sites that might reduce channel capacity, install setback levees or bypass channels to maintain channel capacity and to mitigate hydraulic impacts. Where low channel velocities might result from construction, implement a sediment management program in order to maintain channel capacity. Provide cross drainage, replacement drainage paths and facilities, and enlarged flow paths to reroute drainage around, under, or over the Proposed Project facilities and to restore the function of any affected existing drainage or flow paths and facilities. Channel modifications for restoration actions would be required to be implemented to maintain or improve flood management functions and would be coordinated with the USACE, DWR, CVFPB, and other flood control agencies to assess the desirability and feasibility for channel modifications. To the extent consistent with floodplain land uses and flood control requirements, if applicable, woody riparian vegetation would be allowed to naturally establish. For areas that would be flooded as a result of the project, or where existing flooding would be increased in magnitude, frequency, or duration, purchase a flowage easement and/or property at the fair-market value. 	<ol style="list-style-type: none"> N/A. The project would not result in any changes in stormwater runoff generation that would warrant the need for additional stormwater storage capacity. N/A. The rock to construct the barrier would be transported to West False River via barge from DWR's Weber or Rio Vista stockpile site, or from a commercially operated quarry, such as in San Rafael. There is not expected to be on-site stockpiling of such materials within a floodplain. Although the project will result in the intentional blockage of West False River during drought years, DWR has determined that the existing nearby Delta channels are adequate to accommodate the redirect flows. There is no need to set back levees or construct new bypass channels. The proposed project would block tidal flows (and velocities) in West False River, but tidal flows that would have otherwise flowed into or out from West False River would be redistributed to adjacent channels (e.g., Fisherman's Cut, Dutch Slough, and the mouth of Old River), which would experience greater tidal flows. Measured maximum tidal velocities in Fisherman's Cut in 2015 increased from about 0.5 to 1.0 foot per second with no EDB to about 3 to 3.5 feet per second with the EDB in place; these increased velocities, however, are within the typical range of tidal velocities observed in Delta channels. Bathymetric surveys used to review impacts of the EDB also indicate that scour near the barrier was not an issue, and undercut levees did not show significant changes between pre and post project implementation of the 2015 EDB (DWR 2019). The maximum tidal velocities in Dutch Slough in 2015 increased from slightly less than 2 feet per second with no EDB to slightly more than 2 feet per second with the EDB in place from June to September. For the mouth of Old River, the tidal flows and velocities increased substantially when the EDB was installed in False River; the maximum velocities were less than 1.0 foot per second with no EDB and were greater than 2 feet per second with the EDB in place (DWR 2019). Sediment carried through by fluvial and tidal flows would be redistributed to adjacent channels (e.g., Fisherman's Cut, Dutch Slough, and the mouth of Old River) when the barrier is in place. Prior implementation of the drought salinity barriers has not identified any sediment management issues that would be a concern with respect to channel conveyance capacity in West False River. Flows would be redistributed to existing adjacent Delta channels (e.g., Fisherman's Cut, Dutch Slough, and the mouth of Old River). Under Mitigation Measure HYDRO-1: Monitor Water Velocity near Existing Levees and the Stability of Levees, and Monitor Scour in the Vicinity of the Barrier with the Notch in Place, DWR will monitor tidal velocities in West False River, Fisherman's Cut, and Franks Tract and the levees around Bradford Island (RD 2059) and Jersey Island (RD 830) while the West False River drought

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>10. Provide a long-term sediment removal program at in-river structures.</p> <p>11. To mitigate potential impacts of changes in the timing of reservoir releases or the possible combination of river peak flows, use forecasts to implement coordination of operations with existing reservoirs.</p>	<p>salinity barrier is in place, since flows will be re-directed to and around these areas.</p> <p>8. N/A. This project does not involve restoration actions.</p> <p>9. N/A. This project would not result in flooding of areas.</p> <p>10. N/A. The barrier deployment would be temporary; thus, a long-term sediment removal program is not appropriate to the scope of the covered action.</p> <p>11. Because the proposed drought salinity barrier would be installed in response to specific conditions, the installation schedule would be determined based on hydrologic conditions, and the barrier would be installed only when drought conditions necessitate its installation. The hydrologic conditions would be determined using known conditions in the Central Valley watershed to date, which are updated monthly, and future hydrologic conditions forecast in a conservative manner.</p>
5-2	<p>1. Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, CVFPB, as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, and CVFPB.</p> <p>2. Provide onsite stormwater detention storage at construction and project facility sites that would reduce project-caused short- and long-term increases in drainage runoff. The storage space would be designed based on the drainage or hydrologic and hydraulic study.</p>	<p>1, 2. The proposed project would not affect any stormwater drainage systems, and therefore would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. The proposed project also would not provide any substantial additional sources of polluted runoff.</p>
5-4	<p>1. Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, CVFPB, as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, and CVFPB.</p> <p>2. Where high channel velocities might result from construction, provide bank protection, such as rip rap, to protect levees from erosion.</p>	<p>1. The proposed project would be in place potentially from mid to late April (construction in West False River would begin no sooner than April 1 and full removal would occur by November 30). Because of low Sierra Nevada snowpack and excess storage capacity in upstream reservoirs during drought conditions, and the lack of historic flooding from high flows before November 30 under such conditions, only a minimal chance would exist for flood flows to occur in the Delta before removal of the proposed barrier. The proposed barrier would present a minimal risk of impeding or directing flood flows.</p> <p>2. Measured maximum tidal velocities in Fisherman's Cut in 2015 increased from about 0.5 to 1.0 foot per second with no EDB to about 3 to 3.5 feet per second with the EDB in place; these increased velocities, however, are within the typical range of tidal velocities observed in Delta channels. Under Mitigation Measure HYDRO-1: Monitor Water Velocity near Existing Levees</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<ol style="list-style-type: none"> 3. Where construction results in longer channel wind fetch lengths, install vegetative buffer zones or wave erosion protection on the water side slope of levees, such as rock or grouted rip rap, and increase levee freeboard to address higher wind and wave runup. 4. Based on the drainage or hydrology and hydraulics study, determine any resulting changes to available evacuation plans or emergency response times. 5. To reduce emergency response times and public safety risks, raise structures and major roads out of the floodplain. 6. Provide automated flood warning systems. 7. Develop and implement area-specific evacuation and emergency response plans. 8. Considering the results of the hydraulics study noted above, perform a seepage and stability analyses that would assess the need and act as a basis for design of other seepage- and stability-related mitigations, such as cutoff walls, adjacent levees, setback levees, berms, and subdrainage features. Perform the analyses in accordance with applicable standards of FEMA, USACE, and DWR. 9. Perform research and collect subsurface information in accordance with applicable standards of FEMA, USACE, and DWR and perform settlement analyses that would assess the need for monitoring and potential settlement-related mitigations, such as ground improvement or pre-construction surcharging. Perform the analyses in accordance with applicable standards of USACE. 10. Perform research and collect subsurface information in accordance with applicable standards of FEMA, USACE, and DWR and perform seismic and liquefaction analyses that would assess the need and provide the basis for design of other seismic-related mitigations, such as ground improvement. Perform the analyses in accordance with applicable standards of USACE and American Society of Civil Engineers and Southern California Earthquake Center. 11. Prepare and implement a plan for periodic maintenance, inspections, repair, and rehabilitation of new water storage and conveyance facilities that could cause flooding upon failure. 12. Provide redundancy and safety controls and devices on water storage and conveyance facilities (pump stations, canals, and tunnels) to protect against facility failure and subsequent flooding. 	<p><i>and the Stability of Levees, and Monitor Scour in the Vicinity of the Barrier with the Notch in Place</i>, DWR will monitor tidal velocities in West False River, Fisherman's Cut, and Franks Tract, and the levees around Bradford Island (RD 2059) and Jersey Island (RD 830) while the West False River drought salinity barrier is in place, since flows will be re-directed to and around these areas.</p> <ol style="list-style-type: none"> 3. N/A. The project will not result in longer channel wind fetch lengths because the project will not affect the amount of permanently inundated areas compared to existing conditions. 4. The proposed project was analyzed for the potential to affect emergency response times upstream and downstream of the drought salinity barrier location because the barrier would block passage through West False River. Boats would have to detour around the barrier, using Fisherman's Cut or Taylor Slough to access West False River. The Bradford Island ferry slip would remain open during construction and would not be obstructed while the barrier is in place, and Bradford Island would remain accessible by helicopter. Given the temporary nature of the proposed project and the availability of alternate routes, this impact would be less than significant. 5. N/A. The project would not increase potential for flooding of structures or major roads relative to existing conditions. 6. N/A. The project would not increase flood risk. 7. N/A. As discussed in the EIR, land-based emergency response routes and plans would not be affected by construction or presence of the proposed project. Nearby roadways that would be accessed for construction and maintenance purposes include rural local roads adjacent to the project site that would be used intermittently by minimal truck traffic during construction and removal of the drought salinity barrier. 8. As analyzed in the DEIR, the proposed project would cause small changes in local tidal elevations but would result in almost no change to mean tidal elevations, which primarily control subsurface seepage and adjacent groundwater elevations. 9. The barrier would be installed within an existing waterway. The project would not contribute to settlement of terrestrial soil profile that would interfere with drainage of surface water in upland areas. 10. As discussed in the EIR, the soils and underlying geology at the project site are composed of soft silts, mucks, peat, and alluvium deposits. With the exception of alluvium deposits, soils at the site do not exhibit the characteristics of the soils most susceptible to liquefaction. The barrier has been designed and engineered for stability, and any structural changes to the barrier or movement of rock resulting from seismic activity would be limited to

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>13. To limit flooding from the unlikely event of a conveyance facility failure, limit extensive flow escape with installation of safety devices such as gated checks.</p> <p>14. Construct new evacuation roads and access roads, as necessary.</p> <p>15. Conduct Golden Guardian emergency drills.</p>	<p>the waterway. The barrier itself would not cause the project site or surrounding area to become unstable during a seismic event.</p> <p>11. DWR would inspect the barrier weekly and would inform the permitting agencies (CDFW, USACE, and USFWS, and NMFS through USACE) should any major maintenance activities be required. DWR would maintain the navigational aids (e.g., signage, lights, buoy lines) while the drought salinity barrier is in place.</p> <p>12. N/A. The project does not involve water storage and conveyance facilities.</p> <p>13. N/A. The project does not involve water conveyance facilities.</p> <p>14. N/A. As discussed in the EIR, land-based emergency response routes and plans would not be affected by construction or presence of the proposed project.</p> <p>15. As described previously, the project would not warrant the need for additional emergency services or practices.</p>
5-5	<p>1. Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, CVFPB, as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, and CVFPB. Provide temporary drainage bypass facilities that would reroute drainage around, along, or over the Proposed Project facilities and construction sites. The temporary bypass facilities would be designed in accordance with drainage or hydrology and hydraulic study and would be in place and fully functional until long-term replacement facilities are completed.</p> <p>2. Based on the results of the drainage or hydrologic and hydraulic study, arrange the length of any stockpiles or other construction features in the direction of the floodplain flow to maximize surface flows under flood conditions.</p> <p>3. At in-stream construction sites that might reduce channel capacity, install setback levees or bypass channels to maintain channel capacity and to mitigate hydraulic impacts.</p> <p>4. Provide cross drainage, replacement drainage paths and facilities, and enlarged flow paths to reroute drainage around, under, or over the Proposed Project facilities and to restore the function of any affected existing drainage or flow paths and facilities.</p>	<p>1. The proposed project would not affect any existing drainage facilities. Therefore, no temporary drainage facilities or bypass facilities would be needed.</p> <p>2. N/A. The rock to construct the barrier would be transported to West False River via barge from DWR's Weber or Rio Vista stockpile site, or from a commercially operated quarry, such as in San Rafael. There is not expected to be onsite stockpiling of such materials within a floodplain.</p> <p>3. The proposed project would block tidal flows (and velocities) in West False River, but tidal flows that would have otherwise flowed into or out from West False River would be redistributed to adjacent channels (e.g., Fisherman's Cut, Dutch Slough, and the mouth of Old River). Because the barrier would be installed during drought conditions when Delta outflows are low, the existing Delta channels would be able to accommodate the redistributed flows.</p> <p>4. Flows would be redistributed to existing adjacent Delta channels (e.g., Fisherman's Cut, Dutch Slough, and the mouth of Old River).</p> <p>5. N/A. The project does not involve channel modifications for restoration actions.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>5. Channel modifications for restoration actions would be required to be implemented to maintain or improve flood management functions and would be coordinated with the USACE, DWR, CVFPB, and other flood control agencies to assess the desirability and feasibility for channel modifications. To the extent consistent with floodplain land uses and flood control requirements, if applicable, woody riparian vegetation would be allowed to naturally establish.</p>	
Land Use and Planning		
6-1	<p>Minimize physical division of existing established communities or residential areas by designing new facilities and infrastructure to be located underground or with sufficient points of visual and physical access. Examples of methods of minimizing physical division include (but are not limited to):</p> <ul style="list-style-type: none"> • Burying or visually masking new infrastructure or facilities; • Restoring disturbed landscapes back to preconstruction conditions; • Reestablishing access (e.g., reconnecting roads, rebuilding bridges); • Relocating landmark buildings; or • Implementing other feasible mitigation to reduce the disturbance to a community's physical composition, visual character, or other features integral to the community's identity. 	<p>N/A. The project involves construction of a rock barrier in West False River. Therefore, the project would not result in any physical division of an existing residential area or established community.</p>
6-2	<p>Compensate for the loss or reduction in environmental values protected by the subject plan or policy. For example, if the project would result in conversion of agricultural land to a non-agricultural use, potential mitigation actions could include:</p> <ul style="list-style-type: none"> • Recording a deed restriction that ensures permanent conservation and mitigation on other property of equal or greater environmental mitigation value; • Creating a buffer or barrier between uses; • Redesigning the project or selecting an alternate location that avoids or mitigates the impact; and/or • Restoring disturbed land to conditions to provide equal or greater environmental value to the land affected by the covered action. 	<p>Land adjacent to the project site is designated by Contra Costa County as Delta Recreation and Resources and Public and Semi-Public and zoned primarily for agricultural use. No project activities would directly occur on lands subject to these land use designations or zoning. As part of the contract specifications, DWR would install navigation buoys, lights, and signage to advise boaters of the presence of the drought salinity barrier and maintain navigation along both waterways as part of the proposed project. Therefore, the proposed project would not cause a significant environmental impact caused by a conflict with land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
Agriculture and Forestry Resources		
7-1	<ol style="list-style-type: none"> Design proposed projects to minimize, to the greatest extent feasible, the loss of the highest valued agricultural land. For projects that will result in permanent conversion of Farmland, preserve in perpetuity other Farmland through acquisition of an agricultural conservation easement, or contributing funds to a land trust or other entity qualified to preserve Farmland in perpetuity (at a target ratio of 1:1, depending on the nature of the conversion and the characteristics of the Farmland to be converted, to compensate for permanent loss). Redesign project features to minimize fragmenting or isolating Farmland. Where a project involves acquiring land or easements, ensure that the remaining nonproject area is of a size sufficient to allow viable farming operations. The project proponents shall be responsible for acquiring easements, making lot line adjustments, and merging affected land parcels into units suitable for continued commercial agricultural management. Reconnect utilities or infrastructure that serve agricultural uses if these are disturbed by project construction. If a project temporarily or permanently cuts off roadway access or removes utility lines, irrigation features, or other infrastructure, the project proponents shall be responsible for restoring access as necessary to ensure that economically viable farming operations are not interrupted. Manage project operations to minimize the introduction of invasive species or weeds that may affect agricultural production on adjacent agricultural land. Establish buffer areas between projects and adjacent agricultural land that are sufficient to protect and maintain land capability and agricultural operation flexibility. Design buffers to protect the feasibility of ongoing agricultural operations and reduce the effects of construction- or operation-related activities (including the potential to introduce special-status species in the agricultural areas) on adjacent or nearby properties. The buffer shall also serve to protect ecological restoration areas from noise, dust, and the application of agricultural chemicals. The width of the buffer shall be determined on a project-by-project basis to account for variations in prevailing winds, crop types, agricultural practices, ecological restoration, or infrastructure. Buffers can function as drainage swales, trails, roads, linear parkways, or other uses compatible with ongoing agricultural operations. 	<ol style="list-style-type: none"> The project site is zoned as General Agricultural and Heavy Agricultural, and the proposed project would not convert the project site to nonagricultural use. Therefore, the proposed project is consistent with the project site's land use and zoning designations. N/A. The project will not result in permanent conversion of Farmland. N/A. The project will not result in fragmentation or isolation of any existing Farmland properties. N/A. The project will not result in disruption of utilities or infrastructure that currently service agricultural properties. DWR will implement Mitigation Measure BIO-10: Remove Invasive Aquatic Vegetation. As most materials needed to construction the drought salinity barrier would be delivered to the site by barge, the potential for introduction of terrestrial weeds that could affect agricultural operations in nearby agricultural properties is greatly minimized. The land staging area for the proposed project on the Jersey Island levee would be used primarily for parking, equipment staging, portable toilets, and a job trailer. This staging area is not expected to interfere with any agricultural operations. Furthermore, because the drought barrier is located within the West False River channel, there is an inherent buffer between construction activities and any ongoing agricultural operations.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
7-2	Design proposed projects to minimize, to the greatest extent feasible, conflicts and inconsistencies with land protected by agricultural zoning or a Williamson Act contract and the terms of the applicable zoning/ contract.	N/A. The project site is not located on or near lands under active Williamson Act contracts.
7-3	Avoid land protected as forestland and timberland through site selection and/or project design. Where feasible, project proponents should take into account the value of the forest, not only in terms of direct products such as wood but also as part of the watershed ecosystem, when selecting a project site. Wherever possible, nonprotected sites should be preferred and selected instead of protected sites.	N/A. The project will not affect any forestland or timberland.
7-4	<ol style="list-style-type: none"> 1. For projects that will result in permanent conversion of Forestland, preserve in perpetuity other forestland through a conservation easement or by acquiring lands or contributing funds to a land trust or other agency (at a target ratio of 1:1, depending on the nature of the conversion and the characteristics of the Forestland to be converted, to compensate for permanent loss). 2. Avoid land protected as forestland and timberland through site selection and/or project design. Where feasible, project proponents should take into account the value of the forest, not only in terms of direct products such as wood, but also as part of the watershed ecosystem, when selecting a project site. When possible, unprotected sites should be preferred and selected instead of protected sites. 3. When removal of existing forestland or timberlands is required as part of an action, proponents must acquire the property at fair market value. 	N/A. The project will not affect any forestland or timberland.
Visual Resources		
8-1	<ol style="list-style-type: none"> 1. Use compatible colors for proposed structural features, such as intakes, pumping plants, and surge towers. Use earth tone paints and stains with low levels of reflectivity. 2. Minimize the vertical profile of proposed structures as much as possible. Where possible, use subgrades for floors of structures. Use landscaped berms instead of walls to mask views of structures from high-visibility sites. Use green roof design where roof structures would be highly visible. 	<ol style="list-style-type: none"> 1. The rocks to be installed in the barrier will have natural coloring. 2. The project will not result in any construction of building structures. 3. N/A. The project will not result in the construction of walls. 4. N/A. The project will not result in construction of building structures. 5. N/A. The project will not need to create new spoils piles. 6. N/A. The project will not involve creation of any parking areas. 7. The project will not result in clearing of terrestrial vegetation.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<ol style="list-style-type: none"> 3. Use vegetation plantings on proposed facility walls, such as climbing plants, espaliers, and other forms that soften the appearance of structures. 4. Develop a landscaping plan for all proposed structures. Provide vegetative screening to soften views of structures. Landscaping should complement the surrounding landscape. 5. Round the tops and bottoms of spoil disposal areas, and contour the faces of slopes to create more natural-looking landforms. Create visual diversity by planting vegetation with diverse growth forms on the spoil disposal areas; plant with more than just grasses. 6. Landscape parking areas at proposed facilities, and include low-impact design features, such as permeable pavers, tree basins, and bioswales, that reduce stormwater runoff and enhance visual quality. 7. Conduct only partial vegetative clearing of the limits of construction rather than clear the entire area; partial clearing would leave islands of vegetation and result in a more natural look. Use irregular clearing shapes with feathered edges instead of hard edges to promote a more natural effect. 8. Develop design form and materials with a goal to achieve aesthetic visual character instead of a strictly utilitarian objective. Use cast natural form elements or natural materials for facing to achieve texture and color compatible with the adjacent landscape; natural materials would be preferable for areas of high visibility and public use. Landscape areas adjacent to facilities. Use natural materials, such as wood and stone, for signage at proposed facilities. 9. Develop aesthetically pleasing landscaping for relocated roads at the shoulders, intersections, and on- and off-ramps from highways. Design turnouts and scenic vista points where appropriate for relocated roads with high visibility and high public use. 10. To the extent consistent with the safety and reliability of the electric grid, as well as site-specific considerations, use single-pole electrical transmission towers instead of lattice-form towers for proposed large electrical transmission lines, and put transmission lines underground along areas with high visibility and high public use. 11. Consider developing aesthetically well-designed visitor centers, vantage areas, or observation decks at appropriate facilities with interpretation features, walking paths, and other features. Although developing visitor centers would not reduce a visual impact, it would have the effect of making the facilities features of interest to the touring public. 	<ol style="list-style-type: none"> 8. The barrier would be constructed using natural materials (i.e., rock). 9. N/A. There is no need for new landscaping because the project is located within the West False River channel. 10. N/A. The project will not require construction of new electrical transmission infrastructure. 11. N/A. The barrier is temporary. There are no plans to make the site a permanent visitor attraction.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
8-2	<ol style="list-style-type: none"> 1. Implement elements of Mitigation Measure 8-1 for temporary construction activities and new facilities that are visible from scenic vistas and designated roads and highways as appropriate. 2. Replace all scenic resources (e.g., large trees) that would be removed for the Proposed Project, when feasible. Identify compensatory mitigation for visual or aesthetic resources by providing improvements to areas with existing diminished scenic quality. 	<ol style="list-style-type: none"> 1. Equipment, construction and removal activities, and the drought salinity barrier would be visible from roads, a residence, and the river, which would temporarily degrade the area's visual quality. Viewer groups that would be affected include the residents in the immediate vicinity of the project site, motorists or recreationists using any of the local roadways on either side of the project site (i.e., Jersey Island Road and Bradford Island Levee Road), and boaters in West False River. Given the fact that the drought salinity barriers are anticipated to be temporarily installed up to two times in 10 years, the proposed project would not have a substantial adverse effect on a scenic vista. 2. N/A. The project will not result in the temporary loss of any scenic resources that would need to be replaced.
8-3	Use shields for proposed lighting facilities, and direct lighting downward and inward toward the facilities.	For construction activities occurring during non-daylight hours, contractors would use light plants, situated on the levees and/or barges, as needed. Lighting would be directed downward toward construction activities to the extent practical.
Air Quality		
9-1	<ol style="list-style-type: none"> 1. Use equipment and vehicles that are compliant with Air Resource Board (ARB) requirements and emission standards for on-road and off-road fleets and engines. New engines and retrofit control systems should reduce NOx and PM from diesel-fueled on-road and off-road vehicles and equipment. 2. 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 CA Code of Regulations [CCR]). Clear signage should be posted for construction workers at all entrances to the site. 3. Maintain all equipment in proper working condition according to manufacturer's specifications. 4. Use electric equipment when possible. Use lower-emitting alternative fuels to power vehicles and equipment where feasible. 5. Use low Volatile Organic Compounds (VOC) coatings and chemicals; minimize chemical use. 6. Prepare a dust control plan and apply dust control measures at the construction sites. 7. To minimize track-out of dirt and mud from dirt and gravel roads, all trucks and equipment, including their tires, shall be washed prior to leaving the site. Only exteriors of trucks and equipment are to be 	<ol style="list-style-type: none"> 1. As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: All construction equipment, diesel trucks, and generators shall be equipped with emissions control technology certified by CARB as the Best Available Control Technology for emission reductions of NOx and PM at the time of construction. 2. As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: Idling times shall be minimized, either by shutting equipment off when not in use or by reducing the maximum idling time to five minutes (as required by California Code of Regulations Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling). Clear signage shall be provided for construction workers at all access points. 3. As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified visible emissions evaluator. 4. Due to the nature of the activity, it is unlikely that electric powered equipment can be utilized.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>washed (no engine degreasing), no detergents or chemicals shall be used in the wash water, and off-site runoff of rinse water shall be prevented.</p> <p>8. For projects involving land fallowing, land conversion, or other agricultural operations, implement applicable BMPs from agencies such as the U.S. Department of Agriculture Natural Resources Conservation Service to reduce potential dust emissions.</p> <p>BMPs for fallowed lands could include, but are not limited to, the following:</p> <p>9. Implement conservation cropping sequences and wind erosion protection measures, such as:</p> <ul style="list-style-type: none"> • Plan ahead to start with plenty of vegetation residue, and maintain as much residue on fallowed fields as possible. Residue is more effective for wind erosion protection if left standing. • If residues are not adequate, small grain • can be seeded about the first of the year to take advantage of the winter rains and irrigated with a light irrigation if needed to get adequate growth. • Avoid any tillage if possible. • Avoid any traffic or tillage when fields are extremely dry to avoid pulverization. <p>10. Apply soil stabilization chemicals to fallowed lands.</p> <p>11. Re-apply drain water to allow protective vegetation to be established.</p> <p>12. Reuse irrigation return flows to irrigate windbreaks across blocks of land including many fields to reduce wind fetch and reduce emissions from fallowed, farmed, and other lands within the block. Windbreak species, management, and layout would be optimized to achieve the largest feasible dust emissions reduction per unit water available for their irrigation. Windbreak corridors would provide ancillary aesthetic and habitat benefits.</p> <p>A. Project-specific lists of mitigation measures should also include the recommendations or requirements of the local air district(s). For example, the Bay Area Air Quality Management District (BAAQMD) lists the following basic and additional mitigation measures to reduce emissions from project construction (BAAQMD, 2010. California Environmental Quality Act Air Quality Guidelines. December 2010.</p>	<p>5. Construction of the proposed project would involve the transport and use of common hazardous materials such as oils, lubricants, and fuels; these compounds often include VOCs. Proposed project activities would not require extensive or ongoing use of acutely hazardous materials or substances. Project-related activities would require the limited, short-term use, storage, and handling of small quantities of hazardous materials, including fueling and servicing of construction equipment on-site using fuels, lubricating fluids, and solvents. These types of materials are not acutely hazardous, however, and DTSC, the U.S. Environmental Protection Agency, and the federal Occupational Safety and Health Administration and California Occupational Safety and Health Administration regulate all storage, handling, and disposal of these materials. In addition, a water quality control plan would be implemented as part of the contract specifications. The plan would identify the hazardous materials to be used during construction; describe measures to prevent, control, and minimize the spillage of hazardous substances; describe transport, storage, and disposal procedures for these substances; and outline the procedures to be followed in case of a spill of a hazardous material. The plan would require that hazardous and potentially hazardous substances being stored on-site be kept in securely closed containers away from drainage courses, storm drains, and areas where stormwater is allowed to infiltrate. It would also stipulate procedures to minimize hazards during on-site fueling and servicing of construction equipment.</p> <p>6. DWR would implement Mitigation Measure AQ-1 to minimize dust generation associated during construction. This measure is as follows:</p> <p>Mitigation Measure AQ-1: <i>Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction.</i></p> <p>The DWR construction contractor shall implement the following applicable basic and enhanced control measures recommended by BAAQMD to reduce generation of fugitive dust during all construction activities:</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>San Francisco, California. Site accessed February 8, 2011. http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx.</p> <p>Basic Construction Mitigation Measures Recommended for ALL Proposed Projects</p> <ol style="list-style-type: none"> 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized 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. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. 8. Post a publicly visible sign with the telephone number and person to contact at the lead agency 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. <p>Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold</p> <ol style="list-style-type: none"> 1. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. 	<ul style="list-style-type: none"> • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • Idling times shall be minimized, either by shutting equipment off when not in use or by reducing the maximum idling time to five minutes (as required by California Code of Regulations Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified visible emissions evaluator. • A publicly visible sign shall be posted at the project site with the name and telephone number of the person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number also shall be visibly posted for compliance with applicable regulations. • All construction equipment, diesel trucks, and generators shall be equipped with emissions control technology certified by CARB as the Best Available Control Technology for emission reductions of NOx and PM at the time of construction. • All contractors shall be required to use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines. <ol style="list-style-type: none"> 7. As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited. 8. N/A. The project will not involve land following, land conversion, or other agricultural operations. 9. N/A. The project does not involve land following. 10. N/A. The project does not involve land following. 11. N/A. The project does not involve land following. 12. N/A. The project does not involve land following.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<ol style="list-style-type: none"> 2. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. 3. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. 4. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. 5. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. 6. All trucks and equipment, including their tires, shall be washed off prior to leaving the site. 7. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. 8. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 9. Minimizing the idling time of diesel powered construction equipment to two minutes. 10. The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet- average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. 11. Use low VOC (i.e., reactive organic gases or ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). 12. Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. 	<p>Basic Construction Mitigation Measures Recommended for ALL Proposed Projects</p> <p>As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</p> <p>The terrestrial ground disturbance proposed consists of very minor grading (to less than 0.5 foot below surface) at the staging area.</p> <p>As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.</p> <p>As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: Idling times shall be minimized, either by shutting equipment off when not in use or by reducing the maximum idling time to five minutes (as required by California Code of Regulations Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling). Clear signage shall be provided for construction workers at all access points.</p> <p>As per Mitigation Measure AQ-1, Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction: A publicly visible sign shall be posted at the project site with the name and telephone number of the person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number also shall be visibly posted for compliance with applicable regulations.</p> <p>Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold</p> <p>DWR will implement the following mitigation measures:</p> <p>Mitigation Measure AQ-1: Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction.</p> <p>The DWR construction contractor shall implement the following applicable basic and enhanced control measures recommended by BAAQMD to reduce generation of fugitive dust during all construction activities:</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>13. Require all contractors to use equipment that meets ARB's most recent certification standard for off-road heavy duty diesel engines.</p>	<ul style="list-style-type: none"> • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • Idling times shall be minimized, either by shutting equipment off when not in use or by reducing the maximum idling time to five minutes (as required by California Code of Regulations Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified visible emissions evaluator. • A publicly visible sign shall be posted at the project site with the name and telephone number of the person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number also shall be visibly posted for compliance with applicable regulations. • All construction equipment, diesel trucks, and generators shall be equipped with emissions control technology certified by CARB as the Best Available Control Technology for emission reductions of NO_x and PM at the time of construction. • All contractors shall be required to use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines. <p>Mitigation Measure AQ-2: Use Verified Diesel Emissions Control Strategies.</p> <p>DWR and/or its contractors shall provide a plan for approval by BAAQMD demonstrating that all heavy-duty off-road equipment used for construction activities is equipped with the most effective Verified Diesel Emissions Control Strategies available for the engine type at the time. In this case, the best available Verified Diesel Emissions Control Strategies would be implementation of Tier 4F engines as certified by CARB and EPA. The equipment shall be properly maintained and tuned in accordance with manufacturers' specifications. Compliance with these</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>requirements will be verified through the submittal to BAAQMD of an equipment inventory and certification plan.</p> <p>Mitigation Measure AQ-3: Meet Tugboat and Derrick Barge Engine Requirements.</p> <p>DWR and/or its contractors shall provide a plan for approval by BAAQMD demonstrating that all tugboat operations for any aspect of the project will meet or exceed Tier 3 emissions standards, as certified by CARB and EPA. The equipment shall be properly maintained and tuned in accordance with manufacturers' specifications. Compliance with these requirements will be verified through the submittal to BAAQMD of an equipment inventory and certification plan.</p> <p>Similarly, DWR and/or its contractors shall provide a plan for approval by BAAQMD demonstrating that all derrick barge equipment will be equipped with a 2015 or newer main engine, a 2018 or newer hoist, and a 2018 or newer generator. The equipment shall be properly maintained and tuned in accordance with manufacturers' specifications. Compliance with these requirements will be verified through the submittal to BAAQMD of an equipment inventory and certification plan.</p> <p>Mitigation Measure AQ-4: Offset Mitigated NO_x Emissions.</p> <p>DWR and/or its contractor shall monitor construction activities throughout installation and removal of the drought salinity barrier and notching. Data shall be collected on construction activities and equipment and the level of implementation of mitigation measures, mitigated emissions from construction activities shall be calculated, and this information shall be reported to BAAQMD. The terms and specifics of construction monitoring and reporting shall be determined in consultation with BAAQMD. Construction emissions data shall include but not be limited to the following sources: off-road construction equipment, tugboats/barges and work boats, on-road trucks, and construction worker commute vehicles.</p> <p>After completion of the proposed project (i.e., removal of the barrier), the final construction emissions shall be evaluated to calculate the total offset mitigation fee based on actual construction activities. DWR shall work in coordination with BAAQMD to assess the specific mechanisms associated with construction monitoring, emissions calculations, and payment logistics.</p> <p>DWR shall use a verifiable program to offset the proposed project's mitigated NO_x emissions that exceed the significance threshold, as determined through the construction monitoring program described</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>above. DWR may achieve the required offset through any combination of the following measures:</p> <ul style="list-style-type: none"> • Implement offset emissions and programs available within Contra Costa County and the SFBAAB. • Submit payment to BAAQMD, on a per-ton-of-NO_x-emissions basis. The price of NO_x emission offsets shall be determined at the completion of the construction monitoring program and emission estimates determined by that program.
9-2	<p>Applicants should develop and implement a project-specific Odor Management Plan. Odor control measures that can be incorporated into this plan include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • A list of potential odor sources • Identification and description of the most likely sources of odor • Identification of potential, intensity, and frequency of odor from likely sources • A list of odor control technologies and management practices that could be implemented to minimize odor releases • A protocol for monitoring, recording, reporting and responding to odor events, including notification of the local and downwind jurisdictions of projects that may result in odor complaints, including contact numbers for responsible individuals during construction. If odor an event occurs, construction activity should be suspended until conditions change, removing the cause and resultant odors, or until alternate management practices are implemented that significantly reduce the odors. 	<p>N/A. Odors are generally regarded as an annoyance rather than a health hazard. The project will not generate odor levels in a manner that would necessitate preparation of a project-specific Odor Management Plan.</p>
9-3	<p>The Air Quality Technical Report prepared for the Proposed Project should evaluate human health risks from potential exposures of sensitive receptors to substantial pollutant concentrations on a project-specific basis. The need for a human health risk analysis should be evaluated using approved screening tools, and discussed with the local Air Quality Management District (AQMD) or Air Pollution Control District (APCD) at the time of preparation of the Air Quality Technical Report.</p> <p>If the health risk is determined to be significant on a project-specific basis, control measures should be implemented to reduce health risks to levels below the applicable air district threshold.</p> <p>Implementation of one or more of the following requirements, where feasible and appropriate would reduce the effects of Impact 9-3a,</p>	<p>DWR will implement the following air quality mitigation measures, which will address the potential effects of construction of the project on sensitive human receptors:</p> <p>Mitigation Measure AQ-1: <i>Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction.</i></p> <p>Mitigation Measure AQ-2: <i>Use Verified Diesel Emissions Control Strategies.</i></p> <p>Mitigation Measure AQ-3: <i>Meet Tugboat and Derrick Barge Engine Requirements.</i></p> <p>Mitigation Measure AQ-4: <i>Offset Mitigated NO_x Emissions.</i></p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>Construction or Operation of Projects Would Expose Sensitive Receptors to Substantial Pollutant Concentrations:</p> <ol style="list-style-type: none"> 1. Implement Mitigation Measure 9-1 to reduce air emissions and air quality impacts from construction and operations of the Proposed Project. 2. Use equipment with diesel engines designed or retrofitted to minimize DPM emissions, usually through the use of catalytic particulate filters in the exhaust. 3. Use electric equipment to eliminate local combustion emissions. 4. Use alternative fuels, such as compressed natural gas or liquefied natural gas. <p>If the project would result in significant emissions of airborne, naturally occurring asbestos or metals from excavation, hauling, blasting, tunneling, placement, or other handling of rocks or soil, a dust mitigation and air monitoring plan would be required to specify site-specific measures to minimize emissions and that airborne concentrations of the toxic air contaminants (TACs) of concern do not exceed regulatory or risk-based trigger levels.</p>	
Cultural Resources		
10-1	<ol style="list-style-type: none"> 1. Before any ground-disturbing activities begin, conduct intensive archaeological surveys, including subsurface investigations to identify the locations, extent, and integrity of presently undocumented archaeological resources that may be located in areas of potential disturbance. In addition, if ground-disturbing activities are planned for an area where a previously documented prehistoric archaeological site has been recorded but no longer may be visible on the ground surface, conduct test excavations to determine whether intact archaeological subsurface deposits are present. Also conduct surveys at the project site for the possible presence of cultural landscapes and traditional cultural properties. 2. If potentially CRHR-eligible prehistoric or historic-era archeological resources are discovered during the survey phase, additional investigations may be necessary. These investigations could include, but not necessarily be limited to, measures providing resource avoidance, archival research, archaeological testing and California Register of Historical Resources (CRHR) eligibility evaluations, and contiguous excavation unit data recovery. In addition, upon discovery of potentially CRHR-eligible prehistoric 	<ol style="list-style-type: none"> 1. In December 2019, ESA conducted an intensive cultural resources pedestrian survey of non-inundated areas of the drought salinity barrier portion of the project area on Jersey Island. Specific attention was given to inspecting the areas of the drought salinity barrier portion of the project area where two architectural resources (Bradford Island Levee, Jersey Island Levee) had been previously recorded by AECOM (2014). The Jersey Island Levee was revisited and the Bradford Island Levee was observed from across West False River, on the Jersey Island side of the drought salinity barrier portion of the project area. During the field survey, no new cultural resources were identified in the project area, but two previously recorded cultural resources were identified there: the Bradford Island Levee and the Jersey Island Levee. Both cultural resources identified in the project area are historic-era levees. <p>DWR concurs with AECOM's previous recommendation regarding both the Bradford Island Levee and the Jersey Island Levee, concluding that they are not eligible for the California Register, as neither meet the significance criteria for associations with important events related to reclamation, or persons important to local, state, or national history. The levees do not represent new or innovative designs, nor are they the work of a notable engineer. No</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>resources, coordinate with the NAHC and the Native American community to provide for an opportunity for suitable individuals and tribal organizations, including federally recognized tribes, to comment on the proposed research.</p> <p>3. If CRHR-eligible archaeological resources or cultural landscapes/properties are present and would be physically impacted, specific strategies to avoid or protect these resources should be implemented if feasible. These measures may include:</p> <ul style="list-style-type: none"> • Planning construction to avoid the sensitive sites • Deeding the sensitive sites into permanent conservation easements • Capping or covering archaeological sites • Planning parks, green space, or other open space to incorporate the sensitive sites • Granting of cultural easements to Native American tribes for the purpose of protecting cultural resource properties <p>4. If federal agencies are participants in the activity and Section 106 of the National Historic Preservation Act applies, conduct formal consultation with the State Historic Preservation Officer, Tribal Historic Preservation Officer (THPO) or Tribal Administrator for tribes that do not have a THPO, and the Native American community. Potential adverse effects on cultural resources recommended as eligible for listing in the National Register of Historic Places (NRHP) will be resolved through the development of a memorandum of agreement and/or a program-level agreement.</p> <p>5. As part of efforts to identify, evaluate, and consider cultural resources, including prehistoric sites, Native American human remains, and traditional cultural properties, Native Americans would be consulted. The California Native American Heritage Commission (NAHC) would be asked to provide a list of Native Americans who should be contacted concerning an identified future project. The NAHC would also be asked to search its Sacred Lands Files. Native Americans identified by the NAHC would be contacted by letter to request information on cultural resources of importance. They also would be asked to identify concerns they have about the project. THPOs and Tribal Administrators of federally recognized tribes would be contacted and asked to search their files and provide information necessary for the identification and consideration of cultural resources.</p>	<p>archaeological deposits were identified within the project area, and the levees themselves are not considered to contain information that would be useful in addressing questions important to history.</p> <p>2. N/A. No potentially California Register–eligible prehistoric or historic-era archeological resources were discovered during the survey phase.</p> <p>3. N/A. No potentially California Register–eligible prehistoric or historic-era archeological resources were discovered during the survey phase.</p> <p>4. SHPO consultation will occur via USACE as part of its processing of the CWA Section 404 permit.</p> <p>5. In support of required Native American notification for the proposed project pursuant to PRC Section 21080.3.1, and in accordance with the California Natural Resources Agency’s Final Tribal Consultation Policy and DWR’s Tribal Engagement Policy, DWR sent letters via certified mail on March 25, 2021, to the following Native American representatives:</p> <ul style="list-style-type: none"> • Herbert (Lou) Griffith, Wilton Rancheria • Katherine Perez, North Valley Yokuts Tribe • Anthony Roberts, Yocha Dehe Wintun Nation (YDWN) • Sara Dutschke Setshwaelo, Lone Band of Miwok Indians • Gene Whitehouse, United Auburn Indian Community (UAIC) <p>These letters provided information on the proposed project and requested that the recipients notify DWR if they would like to consult pursuant to PRC Section 21080.3.1. The only response to these letters came in a letter to DWR from Isaac Bojorquez (YDWN) dated April 8, 2021, which stated that the proposed project is not within YDWN’s aboriginal territory and that YDWN declines to comment on the proposed project.</p> <p>On April 12, 2021, DWR sent follow-up emails to the four Native American representatives listed above who did not reply to the initial letter; the email included the original outreach letters and maps. DWR followed up again with a similar email on April 16, 2021. DWR received one reply to the emails, from Anna Starkey (UAIC) on April 13, 2021, stating that the proposed project is outside UAIC’s tribal territory and that UAIC declines to consult on the proposed project. Ms. Starkey contacted DWR again, via email on April 30, 2021, asking whether any other Native American tribes had requested to consult on the proposed project. DWR responded to the email the same day, stating that no other tribes had requested consultation.</p> <p>In support of required Native American notification for the proposed project pursuant to PRC Section 21080.3.1, and in accordance with the Tribal</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>6. Before any project-specific ground-disturbing activities begin, conduct investigations to identify submerged cultural resources. These investigations would include review of State Lands Commission (SLC) Shipwrecks Database and other SLC files, and remote sensing surveys conducted under the direction of a qualified maritime archaeologist. If avoidance of significant submerged cultural resources is not feasible, a permit from SLC may be necessary to conduct resource documentation and possible salvage of artifacts, ship components, and other data and objects.</p> <p>7. If CRHR-eligible archaeological resources, including submerged or buried shipwrecks or other maritime-related cultural resources, are discovered during construction activities, work would halt within 100 feet of the discovery until the find can be evaluated by a qualified archaeologist or maritime archaeologist as appropriate. In addition, SLC would be consulted.</p>	<p>Consultation Policy and Tribal Engagement Policy, DWR sent letters via certified mail on January 27, 2022, to the same five Native American representatives listed above; these letters provided information regarding revisions to the proposed project and requested that DWR be contacted if the Tribes would like to consult pursuant to PRC Section 21080.3.1. Only one Tribe, the Wilton Rancheria, responded, on February 15, 2022, stating that they would like to consult on the proposed project pursuant to PRC Section 21080.3.1. Between February and March 2022, DWR and the Wilton Rancheria consulted on the proposed project through emails and conference calls, including DWR's invitation to the Tribe to the EIR scoping meeting, which occurred on March 9, 2022, and additional project details. The Wilton Rancheria did not state that they had any specific concerns regarding the proposed project's potential to affect cultural resources or tribal cultural resources.</p> <p>In accordance with the Tribal Consultation Policy and Tribal Engagement Policy, DWR sent letters on March 25, 2021, to the following Native American representatives:</p> <ul style="list-style-type: none"> • Donal Duncan, Guidiville Indian Rancheria • Andrew Galvan, The Ohlone Indian Tribe • Corrina Gould, The Confederated Villages of Lisjan • Lloyd Mathiesen, Chicken Ranch Rancheria of Me-Wuk Indians • Charlene Nijmeh, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area • Neil Peyron, Tule River Indian Tribe • Rhonda Morningstar Pope, Buena Vista Rancheria of Me-Wuk Indians • Ann Marie Sayers, Indian Canyon Mutsun Band of Costanoan • Cosme Valdez, Nashville Enterprise Miwok-Maidu-Nishinam Tribe • Charlie Wright, Cortina Rancheria-Kletsel Dehe Band of Wintun Indians • Irene Zwierlein, Amah Mutsun Tribal Band of Mission San Juan Bautista <p>These letters provided information regarding the proposed project and requested that the recipients notify DWR if they had any concerns regarding the proposed project and effects on cultural resources.</p> <p>On April 16, 2021, DWR sent a follow-up email to the above-listed contacts requesting that they notify DWR if they had any concerns regarding the proposed project and effects on cultural resources. On April 21, 2021, DWR</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
		<p>left or attempted to leave voice mails for Mr. Galvan, Ms. Gould, Ms. Sayers, and Ms. Zwierlein, as a follow-up to the letters and emails; note that the NAHC contacts list did not provide phone numbers for the other above-listed contacts. DWR did not receive any replies from these individuals.</p> <p>In accordance with the Tribal Consultation Policy and Tribal Engagement Policy, DWR sent emails on January 27, 2022, to the same 11 Native American representatives listed above. These letters provided information regarding revisions to the proposed project and requested that DWR be contacted if the Tribes had any concerns regarding the proposed project. DWR did not receive any response from these Tribes.</p> <p>6. No archaeological resources, including any submerged cultural resources, have been identified in the project area.</p> <p>7. In such a circumstance, Mitigation Measure CUL-3: Implement Unanticipated-Discovery Protocol for Submerged Cultural Resource would apply. Activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. DWR and its qualified archaeologist—defined as one who meets the U.S. Secretary of the Interior’s Professional Qualifications Standards for Archeology and has expertise in California archaeology—shall be informed of the discovery immediately. If the find is a maritime archaeological resource, the qualified archaeologist assessing the find shall have expertise in maritime archaeology. DWR shall initiate consultation with CSLC staff within two business days of the discovery.</p>
10-2	<p>The identification, evaluation, and determination of disposition of Native American human remains shall be conducted in accordance with Native American consultation procedures described below and in Mitigation Measure 10-1. The location, content, and character of Native American human remains are confidential and shall not be released to the public. Native American human remains and associated funerary objects shall be treated with the utmost respect and in accordance with the direction of the identified Most Likely Descendant (MLD).</p> <p>1. If human remains are encountered during ground-disturbing construction activities, stop work that would potentially affect the find and contact the county coroner.</p> <ul style="list-style-type: none"> In accordance with the California Health and Safety Code and the California Native American Grave Protection and Repatriation Act (CNAGPRA), if human remains are uncovered during ground-disturbing activities, the contractor shall immediately halt potentially damaging excavation in the area of the burial and notify the county coroner, a professional archaeologist to 	<p>1. DWR will comply with Mitigation Measure CUL-4: Implement Unanticipated-Discovery Protocol for Human Remains which states the following:</p> <p>If human remains are uncovered during project construction, all work shall immediately halt within 100 feet of the find and the appropriate county’s coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in State CEQA Guidelines Section 15064.5(e)(1). If the County Coroner determines that the remains are Native American, the County shall contact the NAHC, in accordance with California Health and Safety Code Section 7050.5(c) and PRC Section 5097.98. Per PRC Section 5097.98, DWR shall ensure that the immediate vicinity of the location of the Native American human remains is not damaged or disturbed by further development activity until DWR has discussed and conferred with the most likely descendant regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.</p> <p>2. N/A. The project will not affect any lands owned and administered by a federal agency.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>determine the nature of the remains, and a representative of California Indian tribes. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by telephone within 24 hours of making that determination (Health and Safety Code section 7050[c]).</p> <ul style="list-style-type: none"> • Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code section 5097.9. • Upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. • A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California Public Resources Code section 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the landowner shall employ: (1) <i>Record the site with the NAHC or the appropriate information center.</i> (2) <i>Use an open space or conservation zoning designation or easement.</i> (3) <i>Record a document with the county in which the property is located.</i> • The landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The 	

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>landowner or his or her authorized representative may also reinter the remains in a location not subject to further disturbance if he or she rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the landowner.</p> <p>2. If the discovery of human remains occurs on lands owned and administered by a federal agency, the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) will apply. NAGPRA requires federal agencies and certain recipients of federal funds to document Native American human remains and cultural items in their collections, notify native groups of their holdings, and provide an opportunity for repatriation of these materials. The act also requires planning for dealing with potential future collections of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony.</p>	
10-3	<ol style="list-style-type: none"> 1. Inventory and evaluate historic-era buildings, structures, and linear features. Conduct cultural resource studies to determine whether historic-era buildings, structures, and linear features in the project area are eligible for listing in the CRHR. 2. Before construction activities begin, an inventory and evaluation of historic-era resources in the project area should be conducted under the direct supervision of an architectural historian meeting the Secretary of the Interior's Professional Qualification Standards for history or architectural history. The documentation should include conducting an intensive field survey, background research on the history of the project area, and property-specific research. Based on this research, the eligibility of historic-era resources located in the project area should be evaluated by the architectural historian using criteria for listing in the CRHR. The resources would be recorded on DPR 523 forms and the findings documented in a technical report. If federal funding or approval is required, then the project implementation agencies would comply with Section 106 of the National Historic Preservation Act. 3. Identify measures to avoid significant historic resources. Avoidance through project redesign is the preferred mitigation measure for mitigating potential effects on historic-era buildings, structures, linear features, and archaeological sites that appear to be eligible for listing in the NRHP or CRHR. 4. Record photographic and written documentation to Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) standards. If avoidance of a significant historic 	<ol style="list-style-type: none"> 1. The project will not affect any historic-era buildings or structures. 2. In December 2019, ESA conducted an intensive cultural resources pedestrian survey of non-inundated areas of the drought salinity barrier portion of the project area on Jersey Island. There were no identified historic resources that were eligible for the California Register. 3. N/A. There are no identified historic resources, so avoidance measures are not necessary. 4. N/A. There are no identified historic resources. 5. N/A. There are no identified historic buildings. 6. N/A. There are no such resources present in the project area.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>resource is not feasible, the lead agency should ensure that HABS/HAER documentation is completed. Through HABS/HAER documentation, a qualified architectural historian and qualified photographer should formally document the historic resource through large-format photography, measured drawings, written architectural descriptions, and historical narratives. The completed documentation should be submitted to the Library of Congress.</p> <p>5. Conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings in the event of relocation. If any historic buildings, structures, or levees are relocated or altered, the lead agency should ensure that any changes to significant buildings or structures conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. Implementation of this measure can mitigate potential changes to significant architectural resources.</p> <p>6. Conform to the Secretary of the Interior's Guidance for the Treatment of Cultural Landscapes to preserve landscapes' historic form, features, and details that have evolved over time.</p>	
10-4	Mitigation Measures 10-1 and 10-3 will also mitigate Impact 10-4, Disturbance or Destruction of Cultural Landscapes and Traditional Cultural Properties. However, to mitigate Impact 10-4, Mitigation Measure 10-1 surveys and Mitigation Measure 10-3 inventories would focus on cultural landscapes and traditional cultural properties.	A field survey and cultural records search have been completed and did not identify eligible cultural resources in the project site.
Geology and Soils		
11-1	<p>1. For construction that occurs in an Alquist-Priolo Special Studies Zone, a determination must be made by a licensed practitioner (California Certified Engineering Geologist) that no fault traces are present within the building footprint of any structure intended for human occupancy. The standard of care for such determinations includes direct examination of potentially affected subsurface materials (soil and/or bedrock) by logging of subsurface trenches. Uncertainties regarding the exact locations of future ground ruptures associated with such determinations generally are resolved by providing a minimum setback of 50 feet from any known surface trace of an active fault. For critical structures, such as hospitals, dams, and emergency facilities, more stringent mitigation measures are required, including but not limited to greater structural setbacks and heavier reinforcement against strong ground motion, in</p>	<p>1. N/A. The project site is not located within an Alquist-Priolo Earthquake Fault Zone.</p> <p>2. The project site lies within the Montezuma Hills Fault Zone and near large active fault systems, including the San Andreas Fault system and the Great Valley Fault system. Surface rupture occurs when the ground surface is broken as a result of fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. The damage from surface fault rupture is generally limited to a linear zone that is a few yards wide. No active or potentially active faults have been mapped on the project site. Therefore, surface fault rupture would be unlikely to occur.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>compliance not only with California regulations but in many cases in compliance with additional Federal regulations.</p> <p>2. Lead agencies shall ensure that geotechnical design recommendations are included in the design of facilities and construction specifications to minimize the potential impacts from seismic events and the presence of adverse soil conditions. Recommended measures to address adverse conditions shall conform to applicable design codes, guidelines, and standards.</p>	
11-2	<p>Require adherence, at minimum, to the precepts of the current approved version of the International Building Code (IBC). Included in the IBC are measures for mitigation of the impacts of strong ground motion on constructed works. In addition to the California –required conformance with the IBC, for critical structures, such as dams (including levees), hospitals, and emergency facilities, additional construction requirements are codified in federal statutes and the regulations of various federal agencies. Lead agencies will, by force of law, require conformance with these codified mitigation measures.</p>	<p>N/A. The project does not involve construction of any new buildings.</p>
11-3	<p>1. For projects that would result in significant or potentially significant grading operations, a geotechnical investigation shall be performed and a geotechnical report prepared. The geotechnical report shall include a quantitative analysis to determine whether excavation or fill placement would result in a potential for damage due to soil subsidence during and/or after construction. Project designs shall incorporate measures to reduce the potential damage to an insignificant level, including but not limited to removal and recompaction of existing soils susceptible to subsidence, ground improvement (such as densification by compaction or grouting, soil cementation), and reinforcement of structural components to resist deformation due to subsidence. The site-specific potential for and severity of cyclic seismic loading shall be analyzed in the assessment of subsidence for specific projects.</p> <p>2. A geotechnical investigation shall be performed by an appropriately licensed professional engineer and/or geologist to determine the presence and thickness of potentially liquefiable sands that could result in loss of bearing value during seismic shaking events. Project designs shall incorporate measures to mitigate the potential damage to an insignificant level, including but not limited to ground improvement (such as grouting or soil cementation), surcharge loading by placement of fill, excavation, soil mixing with non-</p>	<p>1. N/A. The project will not result in significant grading operations. There will be some very minor grading at the staging area.</p> <p>2. The soils and underlying geology at the project site are composed of soft silts, mucks, peat, and alluvium deposits. With the exception of alluvium deposits, the soils at the site do not exhibit characteristics of soils most susceptible to liquefaction; however, these soils could soften as a result of seismic shaking. A large earthquake within one of the fault systems in the project vicinity could cause ground shaking in the area, potentially resulting in liquefaction and associated ground failure such as lateral spreading and differential settlement (densification or compaction of soils). There is an extremely low probability that a large-magnitude earthquake would occur during the limited period when a drought salinity barrier would be in place.</p> <p>3. N/A. The project would not result in construction of wells.</p> <p>4. N/A. The project would not result in construction of a surface reservoir or canals.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>liquefiable finer-grained materials and replacement of liquefiable materials at shallow depths, and reinforcement of structural components to resist deformation due to liquefaction. An analysis of site-specific probable and credible seismic acceleration values, in accordance with current applicable standards of care, shall be performed to provide for suitable project design.</p> <p>3. For projects that would result in construction of wells intended for groundwater extraction, a hydrogeological/geotechnical investigation shall be performed in accordance with the current standards of care for such work by an appropriate licensed professional engineer or geologist to identify and quantify the potential for groundwater extraction-induced subsidence. The study shall include an analysis of existing conditions and modeling of future conditions to assess the potential for aquifer compaction/consolidation.</p> <p>4. For projects that would result in construction of surface reservoirs and canals a hydrogeological/geotechnical investigation shall be performed by a licensed professional engineer or geologist to identify and quantify the potential for seeps and springs to develop in areas adjacent to the proposed improvements and to propose mitigation measures. Mitigation of such seepage could include, without limitation, additives to concrete that reduce its permeability, construction of impervious liner systems, and design and construction of subdrainage (passive control) or dewatering systems (active control).</p> <p>Geotechnical investigations and preparation of geotechnical reports shall be performed in the responsible care of California licensed geotechnical professionals including professional civil engineers, certified geotechnical engineers, professional geologists, certified engineering geologists, and certified hydrogeologists, all of whom should be practicing within the current standards of care for such work.</p>	
11-4	<p>Any covered action that would have significant soil erosion and topsoil loss impacts (Impact 11-4) shall incorporate specific measures for future projects that would expand the use of BMPs or optional erosion control measures listed in the SWPPPs. The SWPPP shall identify an effective combination of BMPs to reduce erosion during construction and to prevent erosion during operation. Examples of typical BMPs include:</p> <ul style="list-style-type: none"> Erosion control measures such as silt fencing, sand bags, straw bales and mats, and rice straw wattles shall be placed to reduce erosion and capture sediment. Straw used for erosion control shall be new cereal grain straw derived from rice, wheat, or barley; free of mold and 	<p>The staging area would be situated on the Jersey Island levee and would be limited to approximately 0.37 acre in size. Access routes would be restricted to Jersey Island Road and Bradford Island Levee Road. As discussed in Protective Environmental Measure 2.5.1 in Draft EIR Section 2.5, Protective Environmental Measures, a water quality control plan would be prepared and implemented as part of the contract specifications during all ground-disturbing construction activities. The plan would include site-specific measures to control erosion, reduce the likelihood of spills, and control sedimentation, dust, and runoff.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>noxious weed seed; and neither derived from dry-farmed crops nor previously used for stable bedding. Clearance shall be obtained from the County Agricultural Commissioner before straw obtained from outside the county is delivered to the work site. Monitoring requirements of the newly revised General Construction Permit shall be implemented, and more effective BMPs shall be identified and installed if runoff samples indicate excessive turbidity.</p> <ul style="list-style-type: none"> • During construction activities, topsoil shall be removed, stockpiled, and saved for reapplication following completion of construction. The top 6 inches shall be salvaged and reapplied to a comparable thickness. Soil material shall be placed in a manner that minimizes compaction and promotes plant reestablishment. • If catch basins are used for sediment capture, the site shall be graded to ensure stormwater runoff flows into the basins, and basins shall be designed for the appropriate storm interval as provided in the General Construction Permit. • Temporary work areas shall be surfaced with a compacted layer of well-graded gravel. They may be covered with a thin asphalt binder. Where expansive or compressible soils are present in temporary work areas, construction trailers shall be supported with concrete pads or footings. • Dust control shall conform to all federal, State, and local requirements and may include use of water trucks, street sweepers, or other methods described in the SWPPP. • Spoils shall be placed in 12-inch-thick loose lifts and compacted to reduce erosion and minimize future subsidence. Placement of peat spoils shall be on agricultural land where possible. Following construction, spoils sites shall be restored to avoid erosion. 	
11-5	<p>In areas where expansive clays exist, a hydrogeological/geotechnical investigation shall be performed by a licensed professional engineer or geologist to identify and quantify the potential for expansion, particularly differential expansion of clayey soils due to leakage and saturation beneath new improvements. Measures could include, but are not limited to removal and recompaction of problematic expansive soils, soil stabilization, and/or reinforcement of constructed improvements to resist deformation due to expansion of subsurface soils.</p>	<p>DWR's Geotechnical Engineering Section was involved with the development of the project. The project site would be located on expansive soils as defined in Table 18-1-B of the Uniform Building Code (1994), including muck, silt, and peat; however, the channel bed is not subject to wetting and drying, and the levees adjacent to the project site were reinforced for the 2015 EDB installation. The proposed project would not create substantial risks to life or property. Because the levees are engineered structures that were recently strengthened, and given the temporary nature of the barrier, shrink-swell potential would not represent a substantial adverse hazard to people or structures.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
11-6	<ol style="list-style-type: none"> For projects that would result in construction of canals, storage reservoirs and other surface impoundments, project design shall provide for protection from leakage to the subsurface. Measures could include, but are not limited to rendering concrete less permeable by specifying concrete additives such as bentonite, design of impermeable liner systems, design of leakage collection and recovery systems, and construction of impermeable subsurface cutoff walls. For ecosystem restoration projects that might cause subsurface seepage of nuisance water onto adjacent lands: <ul style="list-style-type: none"> Perform seepage monitoring studies by measuring the level of shallow groundwater in the adjacent soils, to evaluate the baseline conditions. Continue monitoring for seepage during and after the project implementation. Develop a seepage monitoring plan if subsurface seepage constitutes nuisance water to the adjacent land. Implement seepage control measures if adjacent land is not useable, such as installing subsurface agricultural drainage systems to avoid raising water levels into crop root zones. Cutoff walls and pumping wells can also be used to mitigate for the occurrence of subsurface nuisance water. 	<ol style="list-style-type: none"> N/A. The project will not result in construction of canals, storage reservoir and other surface water impoundments. The project is not an ecosystem restoration project.
11-7	<p>For projects that would result in construction of levees, surface impoundments and other fill embankments, project design shall incorporate fill placement in accordance with local and State regulations and in accordance with the prevailing standards of care for such work. Measures could include, but are not limited to blending of soils most susceptible to landsliding with soils having higher cohesion characteristics, installation of slope stabilization measures, designing top-of-slope berms or v-ditches, terrace drains and other surface runoff control measures, and designing slopes at lower inclinations.</p>	<p>The project is being implemented in accordance with applicable local and State regulations. The drought barrier has been successfully implemented previously as part of emergency drought deployments, showing that the project design is sound and capable of meeting the project purpose.</p>
11-8	<p>A geotechnical investigation shall be performed and a geotechnical report prepared. The geotechnical report shall include a quantitative analysis to determine whether on-site soils would be suitable for an on-site wastewater treatment system. If it is determined that the soil could not support a conventional on-site treatment system, non-conventional systems shall be analyzed. Potential alternative systems include (SWRCB,</p>	<p>The project does not involve the construction of a new on-site wastewater treatment system.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>2011, Onsite Wastewater Treatment System Scoping Document. http://www.swrcb.ca.gov/water_issues/programs/owts/index.shtml):</p> <ul style="list-style-type: none"> • Containment systems that do not generate waste • Anoxic and anaerobic systems • Attached and suspended growth aerobic treatment systems • Natural treatment systems • Disinfection systems • Engineered-fill leach fields • Monitoring control systems 	
11-9	<p>For projects that would result in significant or potentially significant risk to structures due to the presence of highly organic soils, lead agencies shall require geotechnical evaluation prior to construction to identify measures to mitigate organic soils. The following measures may be considered:</p> <ul style="list-style-type: none"> • Over-excavation and import of suitable fill material • Structural reinforcement of constructed works to resist deformation • Construction of structural supports below the depth of highly organic soils into materials with suitable bearing strength 	<p>The riverbed of the West False River channel is composed of muck, silt, and peat. The barrier has been appropriately designed and engineered to resist liquefaction. In 2014 and 2015, the Bradford and Jersey Island levees adjacent to the project site were strengthened for the barrier installation using rock protection on the waterside slope, the levee toes were repaired, and steel sheet piles were driven through the levees. DWR engineers would conduct a design review and would make any adjustments to the design, if needed, based on experiences from prior installations.</p>
Paleontological Resources		
12-1	<p>1. During the project-level analysis, a Paleontological Resources Monitoring and Recovery Plan (PRMRP) shall be developed and implemented for all actions. The PRMRP shall include protocols for paleontological resources monitoring in those areas where sediment with moderate to high paleontological sensitivity would be affected by construction-related excavations. The PRMRP also shall set forth the following procedures:</p> <ul style="list-style-type: none"> • Confirming the paleontological sensitivity (high, moderate, or low) of the areas to be impacted through review of project-level geological and geotechnical data • Determining the qualifications of the paleontologist as established by the Society of Vertebrate Paleontology (SVP) (SVP, 1991. Standard Measures for assessment and mitigation of adverse impacts to nonrenewable paleontological resources. Society of 	<p>1-2. N/A. The project site is not considered to have moderate to high paleontological sensitivity. The site is located in Holocene-age (11,700 years BP to present day) soft silts, clays, and peat deposits that generally contain the remains of extant, modern taxa and are considered to have low paleontological sensitivity. Sites with low paleontological sensitivity contain sediment that is relatively recent or that represents a high-energy subaerial depositional environment where fossils are unlikely to be preserved. A low abundance of invertebrate fossil remains or reworked marine shell from other units can occur, but the paleontological sensitivity remains low because they lack the potential to serve as significant scientific or educational purposes. This rating also can be applied to strata that have been extensively sampled but have yielded no megafossils.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>Vertebrate Paleontology News Bulletin 152:2 – 5; SVP, 1995. Assessment and mitigation of adverse impacts to nonrenewable paleontological resources: Standard guidelines. Society of Vertebrate Paleontology News Bulletin 163: 22 – 27; SVP, 1996. Conditions of Receivership for Paleontologic Salvage Collections. Society of Vertebrate Paleontology News Bulletin. Vol. 166, pp. 31 - 32</p> <ul style="list-style-type: none"> • The assessment and recovery of discovered fossil resources • The preparation and curation of fossil finds <p>2. The PRMRP would provide guidelines for the establishment of a yearly or biannual monitoring program led by a qualified paleontologist to determine the extent of fossiliferous sediment being exposed and affected by erosion, and determine whether paleontological resources are being lost. If loss of scientifically significant paleontological resources can be documented, then a recovery program should be implemented.</p>	
Mineral Resources		
13-1	<ol style="list-style-type: none"> 1. Ensure land use compatibility between existing mineral resource extraction activities and projects, activities or actions that may be implemented as the result of the Proposed Project. 2. Maintain adequate buffer between future projects and designated MRZ-2 sectors. 3. Explore opportunities to classify and designate new MRZ-2 sectors (e.g., in existing MRZ-3 sectors) to ensure that important mineral resources are conserved and continue to be available for future construction needs. 4. Ensure future land use changes within designated mineral resource extraction areas recognize mineral resource extraction as a compatible use. 5. Limit use of construction aggregate to local sources with sufficient capacity to meet both project and future local development needs, to the extent possible. 6. Use recycled aggregate where possible, to decrease the demand for new aggregate. 	<p>N/A. Implementation of the proposed project would not affect the ability to recover mineral resources in the project vicinity, if any were present. The project site is not identified as a mineral resource zone. Therefore, no impact would occur.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
13-2	<p>1. Ensure access is maintained to existing, active mineral resource extraction sites both during and after project construction.</p> <p>2. Implement recommendations identified in Division of Oil, Gas, and Geothermal Resources of the U.S. Geological Survey (DOGGR) construction site well review program (DOC 2007, California Department of Conservation, Division of Oil, Gas and Geothermal Resources, Well Review Program: Introduction and Application.), such as:</p> <ul style="list-style-type: none"> • For all future projects, identify all existing natural gas well sites and oil production facilities within or in close proximity to the project area. • Identify any oil and natural gas well within 100 feet of any navigable body of water or watercourse perennially covered by water or any officially recognized wildlife preserve as a "critical well" (California Code of Regulations, Title 14, Chapter 4, Article 2, Section 1720(a)(2)(B) and (C)). The DOC requires that a "critical well" include more stringent blowout prevention equipment than non-critical wells based on pressure testing and rating. • Identify safety measures to prevent unauthorized access to equipment. • Include safety shut-down devices on oil and natural gas wells and other equipment, as appropriate. • Notify DOC of new oil and natural gas wells or changes in oil and natural gas well operations or physical conditions, receive written approval from DOC of the changes, and receive written notification of DOC's inspection of new or changed equipment. The approvals will be primarily related to the ability to: (1) protect all subsurface hydrocarbons and fresh water, (2) protect the environment, (3) use adequate blowout prevention equipment, and (4) use approved drilling and cementing techniques. • If any plugged/abandoned or unrecorded oil and natural gas wells are uncovered during construction, the DOC should be notified, the wells should undergo remedial well plugging actions, and no structures should be constructed over the abandoned oil and natural gas wells. • If oil and natural gas wells are under the jurisdiction or a lease from the California State Lands Commission, project proponents should provide additional plans and environmental documentation as required prior to modification of the oil or natural gas wells. 	<p>N/A. Implementation of the proposed project would not affect the ability to recover mineral resources in the project vicinity, if any were present. The project site is not identified as a mineral resource zone. Therefore, no impact would occur.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
Hazards and Hazardous Materials		
14-1	<ol style="list-style-type: none"> 1. Refueling and maintenance of vehicles and equipment to occur only in designated areas that are either bermed or covered with concrete, asphalt, or other impervious surfaces to control potential spills. 2. Refueling of vehicles and equipment to occur only when employees are present. 3. Vehicle and equipment service and maintenance conducted only by authorized personnel. 4. Refueling conducted only with approved pumps, hoses, and nozzles. 5. Catch-pans placed under equipment to catch potential spills during servicing. 6. All disconnected hoses placed in containers to collect residual fuel from the hoses. 7. Vehicle engines shut down during refueling. 8. No smoking, open flames, or welding allowed in refueling or service areas. 9. Refueling performed away from bodies of water to prevent contamination of water in the event of a leak or spill. 10. When refueling is completed, the service truck to leave the project site. 11. Service trucks provided with fire extinguishers and spill containment equipment, such as absorbents. 12. Should a spill contaminate soil, the soil shall be placed in containers and disposed of as appropriate. All containers used to store hazardous materials to be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas to be inspected monthly. Results of inspections to be recorded in a logbook maintained onsite. 13. Provision of an automatic sprinkler system for indoor hazardous material storage areas. 14. Provision of an exhaust system for indoor hazardous material storage areas. 	<p>1-17. The water quality control plan will identify the hazardous materials to be used during construction; describe measures to prevent, control, and minimize the spillage of hazardous substances; describe transport, storage, and disposal procedures for these substances; and outline procedures to be followed in case of a spill of a hazardous material. DWR will also comply with the requirements regarding refueling and maintenance of vehicles identified in the forthcoming LSA Agreement with CDFW and 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>15. Separation of incompatible materials by isolating them from each other with a noncombustible partition.</p> <p>16. Spill control in all storage, handling, and dispensing areas.</p> <p>17. Separate secondary containment for each chemical storage system. The secondary containment is required to hold the entire contents of the tank plus the volume of water for the fire suppression system that could be used for fire protection for a period of 20 minutes in the event of a catastrophic spill.</p> <p>In addition to the above, federal, state and local requirements for hazardous materials must be followed.</p> <p>In the unlikely event of a spill, the spill shall be reported to the appropriate regulatory agencies and contaminated soil shall be cleaned, treated, and/or removed in accordance with regulatory requirements. Small spills shall be contained and cleaned up immediately by trained, onsite personnel. Larger spills shall be reported via emergency phone numbers to obtain help from offsite containment and cleanup crews. All personnel working on the project during the construction phase shall be trained in handling hazardous materials and the dangers associated with hazardous materials. An onsite health and safety person shall be designated to implement health and safety guidelines and to contact emergency response personnel and the local hospital, if necessary.</p> <p>If there is a large spill from a service or refueling truck, contaminated soil shall be placed into barrels or trucks by service personnel for offsite disposal at an appropriate facility in accordance with law. If a spill involves hazardous materials quantities equal to or greater than the specific Reportable Quantities as required by regulatory agencies (42 gallons for petroleum products), all federal, State, and local reporting requirements shall be followed. In the event of a fire or injury, the local fire department shall be called.</p>	
14-2	<ol style="list-style-type: none"> To reduce the risk due to increased exposure to materials that could be released during soil disturbance, worker training programs and breathing apparatus shall be provided. Monitoring programs shall be implemented as areas are excavated to determine the potential for exposure to soil organisms or other constituents. To reduce risk to the community due to increased exposure to materials that could be released during soil disturbance, public outreach programs shall be conducted to educate the public of the types of construction activities and risks that could occur. In areas near extreme hazards, such as construction in areas with identified 	<ol style="list-style-type: none"> N/A. The project will not result in significant soil disturbance. There will only be some very minor grading at the staging area. The risk to the community is minimal and disclosed in the DEIR. A water quality control plan would be implemented as part of the contract specifications. The Hazardous Waste and Substances Sites List (Cortese List) is compiled by DTSC in accordance with Section 65962.5 of the California Government Code. The Cortese List was searched, and DTSC's online EnviroStor database (DTSC 2020) was searched for sites near the project site with reported hazardous material spills, leaks, ongoing investigations, and/or remediation. In addition, a search was conducted using

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	petroleum-product pipelines or soils with high concentrations of petroleum products, warning sirens shall be used at construction sites to immediately notify workers and residents. Emergency procedures shall be included in the education and outreach programs for the workers and the community.	the State Water Board's GeoTracker database (State Water Board 2020). These searches did not identify any sites with potential hazardous contamination within approximately 2 miles of the project site or the three proposed water quality monitoring stations located in Railroad Cut and Woodward Cut.
14-3	<ol style="list-style-type: none"> 1. Freshwater habitat management to include water-control-structure management, vegetation management, mosquito predator management, drainage improvements, and other best management practices, and coordination with the DFG and local mosquito and vector control agencies regarding these strategies and specific techniques to help minimize mosquito production. 2. Maintenance of permanent ponds that increase the diversity of waterfowl yet decrease the introduction of vectors through constant circulation of water, vegetation control, and periodic draining of ponds. 3. Tidal management focused on mosquito problems arising from the residual tidal and floodwaters remaining in depressions and cracked ground (SCMAD 2011. San Joaquin County Mosquito and Vector Control District. http://www.sjmosquito.org/). 4. Avoidance of ponding in tidal marsh habitat or in areas within the waterside of setback levees. Design of ecosystem restoration areas, waterfowl hunting areas, setback levees, parks, canals, and surface water storage facilities to minimize standing water, or use of other methods such as mosquito fish to reduce mosquito breeding. 	<ol style="list-style-type: none"> 1. The project will not involve any changes to freshwater habitat management that would affect mosquito production. 2. N/A. The project does not involve maintenance of permanent ponds. 3. N/A. The project will not involve facilitating situations in which tidal and floodwater would pond in depressions or cracked soil. 4. N/A. The project does not involve the establishment of setback levees.
14-4	<ol style="list-style-type: none"> 1. Avoid creating hazardous wildlife attractants within a distance of 10,000 feet of an Airport Operations Area. 2. Maintain a distance of 5 statute miles between the farthest edge of the Airport Operations Area and hazardous wildlife attractants. 	<ol style="list-style-type: none"> 1. The project site at West False River is not expected to attract wildlife (e.g., waterfowl) in a manner that would disrupt airport operations. Furthermore, the project site and the three proposed water quality monitoring stations are not located within 2 miles of a public airport. 2. The nearest public airport, Rio Vista Municipal Airport, is approximately 9.5 miles north of the project site. Rio Vista Municipal Airport is approximately 1.5 miles from DWR's existing Rio Vista stockpile and off-loading sites and Stockton Metropolitan Airport is approximately 5.1 miles from DWR's existing Weber stockpile and off-loading sites. Activities at the Rio Vista stockpile, including barges traveling to and from to load and unload rock material, would not trigger attracting additional wildlife that could interfere with airport operations.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
14-5	1. Prepare and implement a fire management plan to minimize potential for wildland fires.	N/A. The installation and removal of a temporary rock barrier in West False River will not increase the potential for wildland fires.
Noise		
15-1	<ol style="list-style-type: none"> 1. Limit the hours of operation at noise-generation sources located near or adjacent to noise-sensitive areas, wherever practicable, to reduce the level of exposure to meet applicable local standards. 2. Locate construction equipment away from sensitive receptors, to the extent feasible, to reduce noise levels below applicable local standards. 3. Maintain construction equipment to manufacturers' recommended specifications, and equip all construction vehicles and equipment with appropriate mufflers and other approved noise-control devices. 4. Limit idling of construction equipment to the extent feasible to reduce the time that noise is emitted. 5. Conduct individual traffic noise analysis of identified haul routes and provide mitigation, such as reduced speed limits, at locations where noise standards cannot be maintained for sensitive receptors. 6. Incorporate use of temporary noise barriers, such as acoustical panel systems, between construction activities and sensitive receptors if it is concluded that they would be effective in reducing noise exposure to sensitive receptors. 7. Near sensitive receptors, avoid or minimize use of construction equipment known to generate high levels of ground borne vibration (for example, pile drivers). 	<ol style="list-style-type: none"> 1. Because the installation and removal of the drought salinity barrier could take place 24 hours a day, the impact during nighttime hours is compared to the FTA nighttime one-hour L_{eq} of 80 dBA, at residential land uses. This is the level at which adverse community reaction could occur (FTA 2018). Estimated noise from barrier construction and removal activities would be below FTA's 80 dBA nighttime threshold at the nearest receptors. 2. The nearest residential property is located approximately 1,800 feet east of the project site. The anticipated noise generation during construction of the project is not out of compliance with any applicable noise thresholds established by San Joaquin County or Contra Costa County. 3. As identified under Mitigation Measure AQ-1: Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction, all construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. 4. As identified under Mitigation Measure AQ-1: Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction, idling times shall be minimized, either by shutting equipment off when not in use or by reducing the maximum idling time to five minutes (as required by California Code of Regulations Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling). 5. As identified under Mitigation Measure AQ-1: Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction, vehicle speeds on unpaved roads shall be limited to 15 miles per hour. Because most materials needed to construct the drought salinity barrier would be delivered to the site by barge, there is expected to be minimal additional traffic noise associated with construction activities along existing roadways and access routes. 6. No noise barriers are considered necessary given that there are no nearby sensitive receptors in immediate proximity to the West False River barrier site. 7. As analyzed in the DEIR, construction activities at the project site would produce negligible levels of ground borne vibration. As such, it was determined to not be necessary to not use a particular type of equipment to avoid generation of high levels of groundborne vibrations.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
15-2	<ol style="list-style-type: none"> 1. Conduct a preliminary ground borne vibration analysis report to determine future construction-related ground borne vibration levels based on, but not limited to, a detailed equipment list, hours of operation and distances to sensitive receptors located within 500 feet of project sites. 2. Provided that future ground borne vibration results in significant impacts at sensitive receptors, the following measures shall be implemented: <ul style="list-style-type: none"> • Designate a complaint coordinator and post this person's contact information in a location near construction areas where it is clearly visible to the nearby receptors most likely to be affected. The coordinator will manage complaints and concerns resulting from activities that cause vibrations. The severity of the vibration concern should be assessed by the coordinator and, if necessary, evaluated by a qualified noise and vibration control expert. • Vibration monitoring will be conducted before and during vibration generating operations occurring within 100 feet of historic structures. Every attempt will be made to limit construction-generated vibration levels during pile driving and other ground borne noise and vibration-generating activities in the vicinity of the historic structures in accordance with recommendations of the appropriate agency with authority. • Adjacent historic features will be covered or temporarily shored, as necessary, for protection from vibrations, in consultation with the appropriate cultural resources authority. • Pile driving required within a 50-foot radius of residences will use alternative installation methods where possible (e.g., pile cushioning, jetting, predrilling, cast-in-place systems, resonance-free vibratory pile drivers). This would reduce the number and amplitude of blows required to seat the pile. • Pile-driving activities conducted within 285 feet of sensitive receptors will occur during daytime hours to avoid sleep disturbance during evening and nighttime hours. 	<p>1-2. As analyzed in the DEIR, construction activities at the project site would produce negligible levels of groundborne vibration. The types of construction equipment used for project activities would include cranes, excavators, loaders, and trucks. This type of equipment is not identified by the California Department of Transportation (Caltrans 2013) or FTA (2018) as generating notable vibration. Additionally, construction activities would take place 1,800 feet or more from the nearest receptors, which would provide ample separation for attenuation if any vibration were to occur. For example, FTA identifies a reference vibration level of 87 vibration decibels at 25 feet from operations of a large bulldozer. Using vibration attenuation equations, the resultant vibration at 1,000 feet would be 40 vibration decibels. This is a vibration level of 50–55 vibration decibels, which is considered a typical background level. As such, it was determined to not be necessary to not use a particular type of equipment to avoid generation of high levels of groundborne vibrations.</p>
15-3	<ol style="list-style-type: none"> 1. Identify noise-sensitive receptors in the vicinity of project activities and design projects to minimize exposure of sensitive receptors to long-term, operational noise sources (for example, water pumps) to reduce noise levels below applicable local standards. 	<ol style="list-style-type: none"> 1-2. The nearest receptors would be at least 1,800 feet away from construction activities. There would be no operation-related noise sources. 3. N/A. The project does not involve creation of a dog park. 4. N/A. The project does not involve construction of new parking lots.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<ol style="list-style-type: none"> 2. Conduct a preliminary noise analysis report to determine future operation-related noise and distances to sensitive receptors. Provided that future operation-related noise results in significant at sensitive receptors, incorporate into construction design measures such as a structure encasing the new noise generating infrastructure. Materials (masonry brick, metal shed, wood) used to house the infrastructure will be of solid construction and void of gaps at the ground, roof line, and joints. All vents will include acoustically rated louvers. 3. Locate dog parks no closer than 200 feet from the nearest residential property line and at least 75 feet from habitat for noise-sensitive wildlife species. 4. Locate parking lots no closer than 65 feet from the nearest residential property line and at least 25 feet from habitat for noise-sensitive wildlife species unless a detailed noise study is conducted that determines that placement of parking lots closer than the distances specified above will not result in noise levels that exceed 67 dBA at the nearest residential property line or 60 dBA from noise-sensitive habitat, or appropriate mitigation measures, including permanent noise barriers, can be incorporated to reduce noise levels to equal the ambient noise level or referenced thresholds for residential property and noise sensitive habitat. 5. Locate playing fields no closer than located at least 125 feet from the nearest residential property line and at least 50 feet from habitat for noise-sensitive wildlife species unless a detailed noise study is conducted that determines that placement of playing fields closer than the distances specified above will not result in noise levels that exceed 67 dBA at the nearest residential property line or 60 dBA from noise-sensitive habitat, or appropriate mitigation measures, including permanent noise barriers, can be incorporated to reduce noise levels to equal the ambient noise level or referenced thresholds for residential property and noise sensitive habitat. 	<ol style="list-style-type: none"> 5. N/A. The project does not involve construction of playing fields.
Population and Housing		
16-1	<ol style="list-style-type: none"> 1. Require compliance with applicable local policies and regulations regarding the provision of affordable housing. 2. Construct replacement housing if existing housing will be displaced. 	<ol style="list-style-type: none"> 1. N/A. The project will have no effect on housing supply. 2. N/A. No existing housing will be displaced.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
Public Services		
17-1	<ol style="list-style-type: none"> 1. Establish construction fee schedules by local agencies for the new or modified facilities to fund additional emergency services potentially required during construction. If emergency services are not needed, a portion of the fees could be refunded. 2. Develop worker training programs to reduce construction and operations risks. 3. Develop appropriate emergency access routes and equipment for both land and water access, if applicable (such as in the Delta), that provides for adequate response time. If use of an existing emergency access route becomes limited due to new or modified facilities, additional routes or placement of duplicate equipment on each side of the route limitation could be considered. 4. Develop traffic plans and emergency response plans for construction and operations phases of new facilities. 5. Develop all facilities, including parks and ecosystem restoration areas, in accordance with applicable fire codes and regulations, and with adequate fire equipment access routes, occupancy limitations, and fire-protection equipment. 	<ol style="list-style-type: none"> 1. N/A. The nature of the project will not trigger the need for additional emergency services. 2. Standard worker safety trainings will be administered to construction crews. 3-4. Access to the project site would be maintained during project activities, and in the event of a fire at the project site, Jersey Island Road, Bethel Island Road, and other local roadways could accommodate emergency response crews and equipment. Bradford Island is located north of the project site. Emergency services access to the island is provided via the ferry slip located on the island's southwest tip, or by helicopter. The Bradford Island ferry slip would remain open during construction and would not be obstructed while the barrier is in place, and Bradford Island would remain accessible by helicopter. 5. The project is consistent with all applicable fire codes and regulations.
Recreation		
18-1	<ol style="list-style-type: none"> 1. If the substantial impairment, degradation, or elimination of recreational facilities occurs, replacement facilities of equal capacity and quality with ongoing funding provided for maintenance of these facilities. 2. If degradation or impairment of recreational facilities, settings, and activities occur from implementation of water use efficient practices and water conservation measures at recreational areas, the park and recreation areas shall be redeveloped with drought-tolerant plant materials, water efficient irrigation systems, and synthetic turf substitutes where appropriate, in such a way as to retain recreational facilities and use areas. 3. If the volume of water exported from the Delta declines over multiple years, the lead agencies that implement local water supplies may be unable to develop a long-term replacement water supply for the south-of-Delta surface water reservoirs with recreation uses. At these sites, facilities must be modified (including access facilities, as 	<ol style="list-style-type: none"> 1. Existing recreational activities available in the general project area include fishing, hunting, and motorized and nonmotorized boating. The proposed project (under all three installation scenarios) is not anticipated to increase the use of existing neighborhood and regional parks or other recreational facilities. However, the Delta waterways themselves are recreational areas. Although West False River access would be temporarily restricted, alternative routes are available. The use of these alternative routes is not anticipated to result in increased use of existing neighborhood and regional parks or other recreational facilities. The project would cause a minimal reduction in access to regional recreational areas, given the availability of multiple alternative routes in the project area. Additionally, a variety of recreational areas are available within the project area and region, so no one recreational facility would become overloaded as a result of changes in boat navigation with the barrier in place. With Installation Scenario 2, DWR may construct a notch (or partial opening) in the drought salinity barrier that would be 400 feet wide, which would allow for boat navigation through West False River between

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>necessary) to accommodate lower water elevations or more frequent fluctuations in water elevations that could occur more frequently in the Proposed Project than under existing conditions.</p>	<p>January and March. Based on these considerations, no funding of replacement facilities was determined to be necessary.</p> <p>2. N/A. The project will not involve implementation of water conservation measures at recreational areas.</p> <p>3. N/A. The project is not directly tied to any change in water exports from the Delta.</p>
18-2	<ol style="list-style-type: none"> 1. If substantial temporary or permanent impairment, degradation, or elimination of recreational facilities causes users to be directed towards other existing facilities, lead agencies shall coordinate with impacted public and private recreation providers to direct displaced users to under-utilized recreational facilities. 2. Lead agencies shall provide additional operations and maintenance of existing facilities in order to prevent deterioration of these facilities. 3. If possible, lead agencies shall provide temporary replacement facilities. 4. If the increase in use is temporary, once use is decreased back to existing conditions, degraded facilities shall be rehabilitated or restored. 5. Where impacts to existing facilities are unavoidable, compensate for impacts through mitigation, restoration, or preservation off-site or creation of additional permanent new replacement facilities. 	<ol style="list-style-type: none"> 1. While the drought salinity barrier is in place, signs would be posted at both entrances to False River, informing boaters of the closure and availability of alternative routes (e.g., the Stockton Deep Water Ship Channel in the San Joaquin River for navigation between Antioch and eastern Delta locations, or via Fisherman's Cut to South Delta destinations), and information would be posted on DWR's website. DWR would also install signs on each side of the barrier and float lines with orange ball floats across the width of the channel to deter boaters from approaching the barrier. Solar-powered warning buoys with flashing lights would be installed on the barrier crest to prevent nighttime accidents. Navigation signage would comply with requirements set forth by the U.S. Aids to Navigation System and the California Waterway Marker System, as appropriate. DWR would coordinate with U.S. Coast Guard District 11 and the California State Parks Division of Boating and Waterways regarding safe vessel passage procedures. DWR or the contractor would also post a notice to mariners, which would include information on the location, date, and duration of channel closure. 2. N/A. The project will not trigger an increased use of any specific recreational facility that would warrant the need for additional funding for operations and maintenance. 3-5 N/A. The project would not affect existing recreational facilities in a manner that would necessitate the provision of temporary recreational facilities, aside from making recreational boaters in Delta take a detour around the West False River barrier.
18-3	<ol style="list-style-type: none"> 1. Projects shall be sited in areas that would have minimal adverse physical effect on the environment. 2. Where impacts to the environment are unavoidable, compensate for impacts through mitigation, restoration, or preservation off-site or creation of additional permanent new replacement facilities. 	<ol style="list-style-type: none"> 1. The proposed project would help protect the beneficial uses of water in the Delta during drought periods, including the beneficial uses described in Water Right Decision 1641 (D-1641). The project is specifically located at the West False River location to prevent intrusion of saltwater into the Central and South Delta. 2. N/A. The project will not require need for mitigation of impacts on recreational resources as described in the DEIR.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
Traffic and Transportation		
19-1	<ol style="list-style-type: none"> 1. Avoid modifications to federal, State, and county highways, local roadways, and bridges that may reduce vehicle capacity, to the extent feasible. 2. Develop and implement a traffic control plan to reduce effects of roadway construction activities, including full and partial lane closures, bike and pedestrian facility closures, and reduced access to adjacent properties. Minimize lane closures during morning and evening peak hours. Limit lane closures near the affected segment. Reroute bicycle and pedestrian access around the project area. Prevent bicyclists and pedestrians from entering the work area. 3. As part of the traffic control plan, identify specific project-vehicle access routes that would avoid additional traffic in residential areas or would adversely affect other sensitive land uses, where feasible. 4. Install roadway status signs at strategic locations in the Delta to inform the public of roadway closures and limits to ingress to/egress from Delta Islands. The signs shall include maps showing the relative locations of road closures and access restrictions to other Delta features. 5. For project operations that increase traffic, prepare a traffic study. Determine haul routes that would be used. Evaluate the levels of service at affected intersections and road segments during the peak a.m. and peak p.m. periods. Model changes in traffic with project traffic. If the level of service is maintained at levels acceptable to the appropriate agency, then no additional mitigation is required. If project traffic causes an intersection or road segment to perform below the minimum level of service standard, then select an alternate route for project traffic or schedule project trips for non-peak-hour periods. If alternate routes are not feasible, then design and construct facility improvements to intersections or road segments to maintain the acceptable level of service. 6. During the planning and analysis of site-specific actions, coordinate with Caltrans and/or other local agencies with jurisdiction over transportation system features for the purpose of minimizing impacts on bridges, roadways, culverts, or other features that may be affected. Agencies responsible for constructing and maintaining levees on which a public roadway may be located shall also be consulted to ensure consistency with levee design criteria. 	<ol style="list-style-type: none"> 1. The project will not result in modifications to existing roadways and bridges that would affect vehicle traffic. 2-4 N/A. The project would not result in roadway construction activities. 5. N/A. The project would not result in a substantial increase in traffic levels compared to existing conditions since most materials and construction equipment would be brought to the project site by barge. 6. The proposed project would not result in any substantial increase in traffic levels along the local roadways, nor would it conflict with a plan, ordinance, or policy addressing the circulation system, including transit, or designated bicycle and pedestrian facilities. 7. N/A. The project does not involve any changes to floodplains. 8-9. N/A. The project would not result in a substantial increase in traffic levels that would trigger premature degradation of existing roadways because most materials and construction equipment would be brought to the project site by barge. The project will not require a need for detouring vehicles traveling along roadways. 10. DWR will comply with Mitigation Measure AQ-1: Implement Bay Area Air Quality Management District (BAAQMD) Fugitive Dust Control Measures during Construction to minimize generation of fugitive dust during construction. 11. Daily truck traffic volumes were estimated using the maximum number of haul trucks anticipated for the proposed project, about 134 truck trips per day during 8- to 24-hour operations. Therefore, hourly volumes of haul trucks for the assigned route segments (River Road to Airport Road to the staging area) were estimated based on an even distribution of truck trips throughout the 8- to 24-hour construction work window, for a total of 12–17 truck trips per hour. Therefore, the proposed project is not anticipated to cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. 12. Boat traffic that normally uses West False River would be required to use other waterways during construction and while the barrier is in use. As detailed in Protective Environmental Measure 2.5.4, Install In-Water Navigational Buoys, Lights, and Signage, in EIR Chapter 2, Project Description, as part of the contract specifications, DWR would install navigational buoys, lights, and signage in West False River upstream and

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>7. For roads that will be flooded during floodplain operation, prepare and implement vehicular traffic detour planning as necessary. Provide convenient and parallel vehicular traffic detours for routes closed because of inundation. A detour plan shall be prepared and implemented in accordance with current Caltrans Standard Plans and Specifications. (A temporary crossing structure, for example a Bailey Bridge, may be used to maintain circulation and avoid a detour plan.) The detour plan shall be implemented before roadway inundation.</p> <p>8. The detour plan will include an assessment of existing roadway conditions, whether paved or unpaved, and provisions for repair and maintenance if the roadway conditions are substantially degraded from increased use. After the detour route is identified and before flood flows are released that would overtop roads, the condition of the detour road surface will be assessed and documented. The documentation will be submitted to the local agency responsible for maintenance of the road. After the detour is no longer needed, the condition of the road surface will be assessed and documented. The documentation will identify substantial changes in the condition of the road surface, such as potholing or rutting. Repair and maintenance actions needed to restore the road surface to predetour conditions will be identified. In coordination with the local maintenance agency, the repair and maintenance actions may be conducted by the agency conducting the floodplain operation or by the local maintenance agency to be proportionately reimbursed by the flood management authority.</p> <p>9. The detour plan will prioritize paved roads for use as detour routes. If use of paved roadway detours is not feasible during flood flow road inundation periods, the detour plan will require that visible dust emissions from unpaved detour routes will be limited to the percent opacity indicated by the appropriate air pollution control district. The following dust control measures may be used to stabilize unpaved roadways:</p> <ul style="list-style-type: none"> • Watering • Uniform layer of washed gravel • Roadmix • Paving <p>10. Any other method that can be demonstrated to the satisfaction of the appropriate air pollution control district that effectively limits visible</p>	<p>downstream of the West False River barrier, and near Fisherman's Cut, to advise boaters of the presence of the temporary barrier and maintain navigation along both waterways.</p> <p>13. Before the start of construction, U.S. Coast Guard District 11 and the California Department of Parks and Recreation, Division of Boating and Waterways, would be notified of construction activities and issue a notice to mariners about navigational restrictions within West False River.</p> <p>14. Boat traffic on West False River would be temporarily restricted upstream and downstream of the barrier. Alternative routes are available via the Stockton Deep Water Ship Channel in the San Joaquin River for navigation between Antioch and locations in the eastern Delta, or via Fisherman's Cut for travel to South Delta destinations. Access to the Bradford Island ferry slip would be maintained during project activities. The project would not result in closure of any boat-related facility or business.</p> <p>15. N/A. The project will not affect any mass transit operations.</p> <p>16. With Installation Scenario 2, DWR may construct a notch (or partial opening) in the drought salinity barrier that would be 400 feet wide, which would allow for boat navigation through West False River between January and March.</p> <p>17. DWR would install navigational buoys, lights, and signage in West False River upstream and downstream of the West False River barrier, and near Fisherman's Cut, to advise boaters of the presence of the temporary barrier and maintain navigation along both waterways.</p> <p>18. N/A. The project would not affect bicycle and pedestrian circulation.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>dust emission to the local percent opacity standard and meets the conditions of a stabilized unpaved road.</p> <p>11. Traffic impact reports shall be prepared that meet the applicable agencies' standards to assess potential impacts on appropriate street segments and intersections. The traffic impact reports shall identify impacts that exceed the agencies' guidelines for significance and identify appropriate mitigation. Acceptable mitigation measures may include:</p> <ul style="list-style-type: none"> • Turn restrictions • Roadway widening to add lanes or shoulders • Redesign of freeway on- and off-ramps • Median construction/modification to restrict access • Flaring of intersections to add turn lanes • Provision of passing lanes or turnouts • Acceleration and deceleration lanes • Removal of obstructions • Roundabouts • Restriping to add lanes with or without parking removal and restrictions • Protected left-turn pockets or free right-turn lanes • Parking restrictions, daily or during peak hours • Fair share contributions to approved projects identified in the agency's Capital Improvement Plan • Fair share contributions to traffic signals identified in the agency's traffic signal plan. <p>12. Prepare and implement a waterway traffic control plan to ensure safe and efficient vessel navigation during construction in waterways. The plan shall identify vessel traffic control measures to minimize congestion and navigation hazards to the extent feasible. Construction areas in the waterway will be barricaded or guarded by readily visible barriers or other effective means to warn boaters of their presence and restrict access. Warning devices and signage will be consistent with the California Uniform State Waterway Marking System and effective during nondaylight hours and periods of dense fog.</p>	

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>13. Where temporary partial channel closure is necessary, a temporary channel closure plan shall be developed. The waterway closure plan will identify and implement alternate detour routing and procedures for notifying boaters of construction activities and partial closures, including coordination with the U.S. Coast Guard, local boating organizations and marinas.</p> <p>14. To the extent feasible, ensure that safe boat access to public launch and docking facilities, businesses, and residences is maintained.</p> <p>15. Coordinate with transit system operators to establish appropriate alternate transit system routes to be rerouted during construction activities, as appropriate.</p> <p>16. Boat passage facilities shall be provided as an integral component of operable gate facilities, when feasible. Boat passage facilities shall be designed to provide uninterrupted boat passage when gate are in the "up" position. Floating docks with mooring bits shall be provided along the shoreline on both sides of the boat passage facility for boaters to use while they await passage. Floating barriers will guide boats into the passage facility chambers.</p> <p>17. Implement a program to provide boater education on procedures for waiting at and using the boat passage facility.</p> <p>18. Minimize impacts on bicycle and pedestrian circulation where feasible by avoiding impacts, minimizing closure of paths, and providing for temporary or permanent relocation of the facility to the extent feasible. Consult with the appropriate public works department to determine the most feasible alignment for facility relocation.</p>	
19-2	<p>Develop and implement a program that will include procedures for routine inspections and emergency facility operation to allow safe navigation should the facility become damaged or malfunction. The program will include the following specific components:</p> <ul style="list-style-type: none"> • Routine inspections and correction procedures to ensure that facility safety features are in good working order. • Routine inspections and correction procedures for navigational hazards around facilities, including floating or submerged debris and the formation of shoals. • Contingency and emergency operating procedures to address the possibility that a boat colliding with the flow control facilities will damage the facilities or otherwise render them unable to operate as engineered, and provisions to allow safe navigation. 	<p>While in place, the barrier would be subject to weekly inspections by DWR. The engineering design is informed based on experience from previous installations.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
19-3	<ol style="list-style-type: none"> 1. Coordinate with responsible local agencies to establish appropriate emergency routes during construction activities and before existing emergency routes are reclassified to a nonemergency route use. 2. Phase construction activities, and use multiple routes to and from offsite locations to minimize the daily amount of traffic on individual roadways. 3. Post warnings about the potential presence of slow-moving vehicles. 4. Use traffic-control personnel when appropriate. 5. Place and maintain barriers, and install traffic-control devices necessary for safety, as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones and in accordance with city and county requirements. 6. Notify appropriate emergency service providers of project construction throughout the construction period to ensure that emergency access through construction areas is maintained. 	<ol style="list-style-type: none"> 1. As documented in the DEIR, land-based emergency response routes and plans would not be affected by construction or presence of the proposed project. Nearby roadways that would be accessed for construction and maintenance purposes include rural local roads adjacent to the project site that would be used intermittently by minimal truck traffic during construction and removal of the drought salinity barrier. Furthermore, most construction activities would occur from the river; therefore, traffic flow would not be substantially interrupted on any roadway. The waterways in the project area are also used for emergency response. Bradford Island is located north of the project site. Emergency services to the island are provided by the ferry slip located on the southwest tip of the island, or by helicopter. The Bradford Island ferry slip would remain open during construction and would not be obstructed while the barrier is in place, and Bradford Island would remain accessible by helicopter. 2. The project would not result in a substantial increase in roadway traffic levels compared to existing conditions because most materials and construction equipment would be brought to the project site by barge. 3. N/A. The overwhelming majority of the construction materials would be delivered by barge. 4-5. N/A. The effects on roadway traffic from construction-related traffic are minimal. 6. DWR would coordinate with U.S. Coast Guard District 11 regarding procedures for safe vessel passage.
19-4	Projects where construction- and operations conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities should implement Mitigation Measure 19-1, above. The portion of the measure that addresses minimizing impacts on bicycle and pedestrian circulation also would be applicable to this measure.	N/A. The project would not conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities
Utilities and Service Systems		
20-1	<ol style="list-style-type: none"> 1. Establish construction debris disposal fee schedules to promote recycling and minimize solid waste. 2. Limit disposal of construction debris and other solid waste at local landfills if the landfills have limited capacity. 3. Dispose of all construction debris at landfills and disposal facilities that are licensed for the type of wastes to be disposed. If the landfills and disposal facilities are not located near future construction sites, 	<ol style="list-style-type: none"> 1. The project would result in generation of minimal amounts of solid waste and would not generate any solid waste during the maintenance period. Any minimal solid waste generation would be incidental. 2. It is anticipated that any solid waste generated during project activities would be disposed of in the Keller Canyon Landfill; this landfill has sufficient permitted capacity to accommodate the project's solid waste disposal needs. 3. All construction debris will be disposed at the appropriate licensed facility.

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>include analysis of transportation of solid waste in future environmental documentation for specific projects.</p> <ol style="list-style-type: none"> Require construction contractors to prepare construction debris management plans and require reuse or recycling of construction debris. Develop project-specific solid waste plans to maximize practices that reduce and recycle solid waste and sludge generated by water, wastewater, and stormwater treatment facilities; and collect, recycle, or compost litter and solid waste generated at new facilities designed for visitor use (such as parks and visitor centers). 	<ol style="list-style-type: none"> DWR would comply with all applicable regulations and policies, mitigation measures, and standard conservation measures (e.g., recycling and/or reuse of materials) to conserve natural resources to the maximum extent possible. The proposed project would generate minimal amounts of solid waste during construction and would not generate any solid waste during maintenance. The rock used for construction of the salinity barrier once removed will be stockpiled for future deployment of a drought salinity barrier as necessary.
20-2	<ol style="list-style-type: none"> Relocate or modify existing water, wastewater, and stormwater facilities or electricity transmission systems in a manner that does not affect current operational reliability to existing and projected users. Coordinate utility relocation and modification with utility providers and local agencies to integrate potential other construction projects and minimize disturbance to the communities. Verify utility locations through field surveys and services such as Underground Service Alert. 	<ol style="list-style-type: none"> N/A. The project would not need to relocate or modify any existing water, wastewater, or stormwater facility or electrical transmission system. The project would not result in the need for utility relocation or modification. N/A. The project would not result in the need for utility relocation or modification.
Climate Change and Greenhouse Gas Emissions		
21-1	<p>A. Implement GHG mitigation measures listed in the most recent California Air Pollution Control Officers Association (CAPCOA), BAAQMD, and other air district guidance documents (e.g., CAPCOA, 2010. Quantifying Greenhouse Gas Mitigation Measures. A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. Sacramento, California. August, p. 210-232; BAAQMD, 2011. California Environmental Quality Act Air Quality Guidelines. San Francisco, California. Updated May 2011, p. 8-6). Current versions of such guidance documents list the following for construction:</p> <ol style="list-style-type: none"> Use alternative fuels for construction equipment. Use electric and hybrid construction equipment. Limit construction equipment idling beyond regulatory requirements. Institute a heavy-duty off-road vehicle plan. 	<p>A, B. The proposed project is consistent with these mitigation measures. The project was made consistent with the DWR Greenhouse Gas Emissions Reduction Plan can be accessed at https://water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan. The proposed project would generate less than 25,000 MT CO₂e for the entire construction phase, i.e., installation, notching, and removal (under all three installation scenarios) and less than 12,500 MT CO₂e in any single year of construction. A GGERP Consistency Determination Checklist has been prepared and is presented in Appendix C of the DEIR, documenting that all project-level GHG emissions reduction measures have been incorporated into the design or implementation plan for the project.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>5. Implement a construction vehicle inventory tracking system.</p> <p>6. Use local building materials for at least ten percent of total materials.</p> <p>7. Recycling or reusing at least 50 percent of construction waste or demolition materials.</p> <p>B. In addition, the California Attorney General's Office has developed a list of various measures that may reduce GHG emissions at the individual project level. A selected list of those proposed measures that could be applied to DWR projects was appended to the DWR guidance document, titled Guidance for Quantifying Greenhouse Gas Emissions and Determining the Significance of their Contribution to Global Climate Change for CEQA Purposes (DWR, 2010e. Guidance for Quantifying Greenhouse Gas Emissions and Determining the Significance of their Contribution to Global Climate Change for CEQA Purposes. California Department of Water Resources Internal Guidance Document. CEQA Climate Change Committee. Sacramento, CA. January, Appendix B). As appropriate, the measures can be included as design features of a project, required as changes to the project, or imposed as mitigation (whether undertaken directly by the project proponent or funded by mitigation fees).</p> <p>The measures are examples; the list is not intended to be exhaustive. The following may serve as BMPs to be considered and implemented (as applicable) during design, construction, operation, and maintenance of project facilities.</p> <p>Efficiency</p> <p>14. Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.</p> <p>15. Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.</p> <p>16. Install light colored "cool" roofs, cool pavements, and strategically placed shade trees.</p> <p>17. Install energy efficient heating and cooling systems, appliances and equipment, and control systems.</p> <p>18. Install light-emitting diodes for street and other outdoor lighting.</p> <p>19. Limit the hours of operation of outdoor lighting.</p>	

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>20. Provide education on energy efficiency.</p> <p>Renewable Energy</p> <p>21. Install solar and wind power systems and energy-efficient heating ventilation and air conditioning.</p> <p>22. Install solar panels over parking areas.</p> <p>23. Use combined heat and power in appropriate applications.</p> <p>Water Conservation and Efficiency</p> <p>24. Create water-efficient landscapes.</p> <p>25. Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.</p> <p>26. Use reclaimed water for landscape irrigation. Install the infrastructure to deliver and use reclaimed water.</p> <p>27. Design buildings to be water-efficient. Install water-efficient fixtures and appliances.</p> <p>28. Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.</p> <p>29. Restrict the use of water for cleaning outdoor surfaces and vehicles.</p> <p>30. Implement low-impact development practices that maintain the existing hydrologic character of the site to manage stormwater and protect the environment. (Retaining stormwater runoff on-site can drastically reduce the need for energy-intensive imported water at the site.)</p> <p>31. Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project.</p> <p>32. Provide education about water conservation.</p> <p>Solid Waste Measures</p> <p>33. Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).</p>	

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<p>34. Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.</p> <p>35. Recover by-product methane to generate electricity.</p> <p>Transportation and Motor Vehicles</p> <p>36. Limit idling time for commercial vehicles, including delivery and construction vehicles.</p> <p>37. Use low or zero-emission vehicles, including construction vehicles.</p> <p>38. Institute a heavy-duty off-road vehicle plan and a construction vehicle inventory tracking system for construction projects.</p> <p>39. Promote ride sharing.</p> <p>40. Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).</p> <p>41. Increase the cost of driving and parking private vehicles by, e.g., imposing tolls and parking fees.</p> <p>42. Provide shuttle service to public transit/[work sites].</p> <p>43. Provide information on all options for individuals and businesses to reduce transportation-related emissions.</p> <p>Carbon Offsets</p> <p>44. If, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing greenhouse gas-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off-site mitigation. The project proponent could, for example, fund off-site mitigation projects (e.g., alternative energy projects, or energy or water audits for existing projects) that will reduce carbon emissions, conduct an audit of its other existing operations and agree to retrofit, or purchase carbon “credits” from another entity that will undertake mitigation.</p> <p>45. The topic of offsets can be complicated, and a full discussion is outside the scope of this summary document. Issues that the lead agency should consider include:</p>	

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
	<ul style="list-style-type: none"> a. The location of the off-site mitigation. (If the off-site mitigation is far from the project, any additional, non-climate related benefits of the mitigation will be lost to the local community.) b. Whether the emissions reductions from off-site mitigation can be quantified and verified. c. Whether the mitigation ratio should be greater than 1:1 to reflect any uncertainty about the effectiveness of the offset. <p>SmartWay Truck Efficiency</p> <p>The strategy involves requiring existing trucks/trailers to be retrofitted with the best available “SmartWay Transport” and/or ARB approved technology. Technologies that reduce GHG emissions from trucks may include devices that reduce aerodynamic drag and rolling resistance. Aerodynamic drag may be reduced using devices such as cab roof fairings, cab side gap fairings, cab side skirts, and on the trailer side, trailer side skirts, gap fairings, and trailer tail. Rolling resistance may be reduced using single wide tires or low-rolling resistance tires and automatic tire inflation systems on both the tractor and the trailer.</p> <p>Tire Inflation Program</p> <p>The strategy involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications.</p> <p>Blended Cements</p> <p>The strategy to reduce CO2 emissions involves the addition of blending materials such as limestone, fly ash, natural pozzolan and/or slag to replace some of the clinker in the production of Portland cement.</p> <p>Anti-idling Enforcement</p> <p>The strategy guarantees emission reductions as claimed by increasing compliance with anti-idling rules, thereby reducing the amount of fuel burned through unnecessary idling. Measures may include enhanced field enforcement of anti-idling regulations, increased penalties for violations of anti-idling regulations, and restriction on registrations of heavy-duty diesel vehicles with uncorrected idling violations.</p>	

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
21-2	<ol style="list-style-type: none"> 1. Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design for flood protection of the facilities constructed along waterways. Prepare the study in accordance with applicable standards of Federal Emergency Management Agency (FEMA), USACE, DWR, Central Valley Flood Protection Board, San Francisco Bay Conservation and Development Commission (BCDC), as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, Central Valley Flood Protection Board, and BCDC. 2. Design intakes/diversions and outfalls to be operated at multiple surface water elevations between existing conditions and maximum projected surface water elevations during a high flow event with sea level rise for the life of the facility. 3. Prepare a hydrogeologic study that would assess long-term groundwater recharge and safe yield of wells and wellfields under a sustainable groundwater management plan. If the wells can be used to a greater degree in some years in a manner that would support the sustainable groundwater management plan to avoid long-term groundwater overdraft, wells could be drilled to deeper depths than would be required under existing conditions. 	<ol style="list-style-type: none"> 1. Although the project will result in the intentional blockage of the West False River during drought years, DWR has determined that the existing nearby Delta channels are adequate to accommodate the redirect flows. There is no need to set back levees or new bypass channels to be constructed. The proposed project would block tidal flows (and velocities) in West False River, but tidal flows that would have otherwise flowed into or out from West False River would be redistributed to adjacent channels (e.g., Fisherman's Cut, Dutch Slough, and the mouth of Old River), which would experience greater tidal flows. Measured maximum tidal velocities in Fisherman's Cut in 2015 increased from about 0.5 to 1.0 foot per second with no EDB to about 3 to 3.5 feet per second with the EDB in place; these increased velocities, however, are within the typical range of tidal velocities observed in Delta channels. Bathymetric surveys used to review impacts of the EDB also indicate that scour near the barrier was not an issue, and undercut levees did not show significant changes between pre- and post-project implementation of the 2015 EDB (DWR 2019). The maximum tidal velocities in Dutch Slough in 2015 increased from slightly less than 2 feet per second with no EDB to slightly more than 2 feet per second with the EDB in place from June to September. For the mouth of Old River, the tidal flows and velocities increased substantially when the EDB was installed in False River; the maximum velocities were less than 1.0 foot per second with no EDB and were greater than 2 feet per second with the EDB in place (DWR 2019). 2. N/A. The project would not involve installation of intakes, diversions, or outfalls. 3. As explained in the DEIR, there would be almost no change to mean tidal elevations, which primarily control subsurface seepage and adjacent groundwater elevations. No effects on seepage flows are expected in the vicinity of the proposed barrier. No effects on groundwater hydrology (elevation and seepage flow) would occur from temporary construction, presence, and removal of the drought salinity barrier, and the proposed project would not impede the sustainable groundwater management of the basin.
21-3	<p>Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design for ecosystem habitat restoration, including adjacent areas that would allow for migration of the habitat to higher elevations as the surface water elevations increase. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, and BCDC. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, Central Valley Flood Protection Board, and BCDC.</p>	<p>N/A. The project does not involve ecosystem restoration.</p>

MMRP CROSSWALK: MITIGATION MEASURES AND PROJECT CONSISTENCY WITH THE DELTA PLAN MMRP

Delta Plan Mitigation Measure #	Delta Plan Mitigation Measure	West False River Drought Salinity Barrier
21-4	<ol style="list-style-type: none"> 1. Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design for projects that reduce risks of floods in the Delta. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, and BCDC. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, Central Valley Flood Protection Board, and BCDC. 2. Based on the results of the drainage or hydrologic and hydraulic study, arrange the length of flood management facilities in the direction of the floodplain flow to maximize surface flows under flood conditions. 3. Install setback levees or bypass channels to maintain channel capacity and to mitigate hydraulic impacts of high flow events and higher surface water elevations due to climate change and sea level rise. 4. Channel modifications for restoration actions would be required to be implemented to maintain or improve flood management functions and would be coordinated with the USACE, DWR, Central Valley Flood Protection Board, BCDC, and other flood control agencies to assess the desirability and feasibility for channel modifications. To the extent consistent with floodplain land uses and flood control requirements, if applicable, woody riparian vegetation would be allowed to naturally establish. 	<ol style="list-style-type: none"> 1. N/A. The project is not intended to reduce risks of flood in the Delta. 2. N/A. The project is not a flood management facility. 3. N/A. The project is intended to be installed only during low-flow drought situations to prevent saline water from intruding into the interior Delta. Installation of setback levees or bypass channels is outside the scope of the covered action. 4. N/A. The project does not involve channel modifications for restoration actions.

NOTES: BAAQMD = Bay Area Air Quality Management District; BMP = best management practice; BP = Before Present; California Register = California Register of Historical Resources; CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; CESA = California Endangered Species Act; CNDDB = California Natural Diversity Database; CSLC = California State Lands Commission; CO2e = carbon dioxide equivalent; CWA = Clean Water Act; cyanoHAB = cyanobacterial harmful algal bloom; dBA = A-weighted decibels; DEIR = draft environmental impact report; Delta = Sacramento–San Joaquin Delta; DTSC = California Department of Toxic Substances Control; DWR = California Department of Water Resources; EDB = emergency drought barrier; EIR = environmental impact report; EPA = U.S. Environmental Protection Agency; ESA = Environmental Science Associates; FTA = Federal Transit Administration; GGERP = Greenhouse Gas Emissions Reduction Plan; Leq = equivalent sound level; LSA = Lake and Streambed Alteration; MMRP = Mitigation Monitoring and Reporting Program; MT = metric tons; N/A = not applicable; NAHC = Native American Heritage Commission; NMFS = National Marine Fisheries Service; NOX = oxides of nitrogen; NTU = nephelometric turbidity units; PM = particulate matter; PRC = Public Resources Code; RD = Reclamation District; SFBAAB = San Francisco Bay Area Air Basin; SHPO = State Historic Preservation Officer; State Water Board = State Water Resources Control Board; UAIC = United Auburn Indian Community; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service; VOC = volatile organic compound; YDWN = Yocha Dehe Wintun Nation