

**WINGS LANDING TIDAL HABITAT  
RESTORATION PROJECT**

*CEQA ADDENDUM*

**APPENDIX A  
Environmental Commitments and  
Mitigation Measures**



## WINGS LANDING TIDAL HABITAT RESTORATION PROJECT ENVIRONMENTAL COMMITMENTS AND MITIGATION MEASURES

### Standard Design Features and Construction Practices

Ensuring that changes within the Suisun Marsh channels will not significantly affect navigation and emergency access by having Rio Vista and Vallejo Coast Guard Stations review plans to assess safety issues associated with changes when there is potential for in-channel work to affect access. **(Not Applicable)**

Implementing best management practices (BMPs) to minimize any disease-carrying mosquitoes and threats to public health if it is found that project components pose a threat to public health.

Controlling construction equipment access and placement of fill to maintain acceptable loading based on the shear strength of the foundation material.

Implementing BMPs and measures to minimize water quality impacts such as temporary turbidity increases. See Erosion and Sediment Control Plan below.

Inspecting all equipment for oil and fuel leaks every day prior to use. Equipment with oil or fuel leaks will not be used within 100 feet of wetlands.

Requiring the construction contractor to remove all trash and construction debris after construction and to implement a revegetation plan for temporarily disturbed vegetation in the construction zones.

Maintaining waste facilities. Waste facilities include concrete wash-out facilities, chemical toilets, and hydraulic fluid containers. Waste will be removed to a proper disposal site.

### Access Point/Staging Areas

- Establish staging areas for equipment storage and maintenance, construction materials, fuels, lubricants, solvents, and other possible contaminants in coordination with resource agencies.
- Staging areas will have a stabilized entrance and exit and will be located at least 100 feet from bodies of water unless site-specific circumstances do not provide such a setback, in which case the maximum setback possible will be used. If an off-road site is chosen, qualified biological and cultural resources personnel will survey the selected site to verify that no sensitive resources would be disturbed by staging activities. If sensitive resources are found, an appropriate buffer zone will be staked and flagged to avoid impacts. If impacts on sensitive resources cannot be avoided, the site will not be used. An alternate site will be selected.
- Where possible, no equipment refueling or fuel storage will take place within 100 feet of a body of water. Vehicle traffic will be confined to existing roads and the proposed access route. Ingress and egress points will be clearly identified in the field using orange construction fence. Work will not be conducted outside the designated work area.

### Erosion and Sediment Control Plan

- Prepare and implement an erosion and sediment control plan to control short-term and long-term erosion and sedimentation effects and to restore soils and vegetation in areas affected by construction activities. The plan will include all the necessary local jurisdiction requirements regarding erosion control and will implement BMPs for erosion and sediment control as required.
- Develop an erosion control plan to ensure that during rain events construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion control materials (baffles, fiber rolls, or hay bales; temporary containment berms) and erosion control measures such as straw application or hydroseeding with native grasses on disturbed slopes, and floating sediment booms and/or curtains to minimize any impacts that may occur from increased mobilization of sediments.

### Stormwater Pollution Prevention Plan

- Develop a stormwater pollution prevention plan (SWPPP) prior to construction. The objectives of the SWPPP will be to (1) identify pollutant sources associated with construction activity and project operations that may affect the quality of stormwater and (2) identify, construct, and implement stormwater pollution prevention measures to reduce pollutants in stormwater discharges during and after construction. The project proponents and/or their contractor(s) will develop and implement a spill prevention and control plan as part of the SWPPP to minimize effects of spills of hazardous, toxic, or petroleum substances during construction of the project. Implementation of this measure will comply with state and federal water quality regulations. The SWPPP will be kept on site during construction activity and during operation of the project and will be made

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available upon request to representatives of the Regional Water Quality Control Board (Regional Water Board). The SWPPP will include but is not limited to:

- a. A description of potential pollutants to stormwater from erosion.
  - b. Management of dredged sediments and hazardous materials present on site during construction (including vehicle and equipment fuels).
  - c. Details of how the sediment and erosion control practices comply with state and federal water quality regulations.
  - d. A description of potential pollutants to stormwater resulting from operation of the project.
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### Hazardous Materials Management Plan

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- The SWPPP will include a hazardous materials spill plan. The plan will describe the actions that will be taken in the event of a spill. The plan also will incorporate preventive measures to be implemented (such as vehicle and equipment staging, cleaning, maintenance, and refueling) and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site immediately will cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination, notify appropriate authorities, and mitigate damage as appropriate. Adequate spill containment materials, such as oil diapers and hydrocarbon cleanup kits, will be available on site at all times. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided on the project site.
  - Do not use any hazardous material in excess of reportable quantities, as specified in Title 40 Code of Federal Regulations (CFR) Part 355, Subpart J, Section 355.50, unless approved in advance by the Office of Emergency Services (OES), and will provide to the OES in the annual compliance report a list of hazardous materials contained at a project site in reportable quantities. The reporting of hazardous materials in excess of reportable quantities of Title 40 CFR Part 355 is required annually to Solano County Environmental Health Services Division as the Solano County Certified Unified Program Agency (CUPA).
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### Mosquito Abatement Best Management Practices (Not Applicable)

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Develop a management program consistent with Marsh-wide management actions for the control of mosquitoes. If necessary, implement a sampling and treatment program for any depressions that would retain tidal water.

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### Managed Wetland Activities Environmental Commitments

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The following environmental commitments for Managed Wetland Activities are included to provide resource protection during long-term management (maintenance of the cross berm) and post-project compliance and effectiveness monitoring:

#### ***Standard Design Features and Construction Practices***

- All work to be performed on the exterior side of levees shall commence and be completed within a 6-hour period, from 3 hours prior to low tide to 3 hours after low tide.
  - Construction equipment used for projects will be checked each day prior to work and, if necessary, action will be taken to prevent fluid leaks. If leaks occur during work, the Corps, its permittee, or the contractor will contain the spill and remove the affected soils.
  - All contractors must have a supply of erosion and pollution control materials on site to facilitate a quick response to unanticipated storm events or emergencies.
  - No in-water work will occur during the repair of existing exterior levees; the coring of existing levees; pipe replacement at the exterior flood or dual- purpose gate; pipe replacement at the existing exterior drain gate; installation, repair, or re-installation of water control bulkheads; installation of drain pumps and platforms; or installation of new exterior drain structures.
  - Emergent vegetation will not be disturbed during the following activities: repair of existing exterior levees, replacement of existing riprap on exterior levee, or installation of the new exterior drain structure.
  - No fresh concrete, cement, silts, clay, soil, or other materials will be discharged to Marsh waters.
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### **Rip Rap (Not Applicable)**

Riprap replacement may occur on the slopes of interior ditches where rock has been washed away and on exterior levees where rock has been washed away or subsided.

- Riprap will not be placed directly on emergent vegetation (e.g., tules, *Schoenoplectus* spp.).
- Emergent vegetation will not be uprooted during the placement of riprap, nor will it be displaced by riprap.
- Riprap placed on the exterior side of the levee will commence and be complete within a six-hour period, from three hours prior to low tide to three hours following low tide.

### **Air Quality Best Management Practices and Mitigation Measures**

#### **Air Quality Best Management Practices: Enhanced Control Measures and Additional Air Quality Best Management Practices**

The following control practices will be used to offset any air quality issues that may arise.

- i. Hydroseed with native or noninvasive species appropriate to that specific location or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more).
- ii. Limit traffic speeds on unpaved roads to 15 mph.
- iii. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- iv. Replant vegetation with native or noninvasive species appropriate to that specific location in disturbed areas as quickly as possible.
- v. Maintain properly tuned engines.
- vi. Minimize the idling time of diesel-powered construction equipment to 2 minutes.
- vii. When available, use alternative-powered (e.g., hybrid, compressed natural gas, biodiesel, electric) construction equipment.
- viii. Use add-on control devices such as diesel oxidation catalysts or particulate filters.
- ix. Require all contractors to use equipment that meets California Air Resources Board's most recent certification standard for off-road heavy-duty diesel engines.
- x. Treat all graded surfaces to prevent nuisances from dust or spillage on roads or adjacent properties.

### **Biological Resources**

#### **Best Management Practices**

The following section outlines the BMPs that will be implemented to avoid or minimize impacts on biological resources. Environmental commitments, including an erosion and sediment control plan, SWPPP, hazardous materials management plan, spoils disposal plan, and environmental training content will be submitted to NMFS, USFWS, and CDFW 30 days prior to commencement of construction.

#### **General**

- No firearms (except for federal, state, or local law enforcement officers and security personnel) will be permitted at the project site to avoid harassment, killing, or injuring of wildlife.
- No pets will be permitted at the project site to avoid harassment, killing, or injuring of wildlife.
- Native vegetation trimmed or removed on the project site will be stockpiled during work, as feasible. After construction activities, removal of temporary mats and construction-related materials, and application of native and naturalized species seed mix have been completed, stockpiled native vegetation will be reapplied over temporarily disturbed wetlands to provide temporary soil protection and as a seed source.

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- Vegetation shall be removed under the supervision of a qualified biologist approved by CDFW and USFWS. If a mouse of any species is observed within the areas being removed of vegetation, CDFW and USFWS shall be notified. Vegetation removal may begin when no mice are observed and shall start at the edge farthest from the salt marsh or the poorest habitat and work its way toward the salt marsh or the better salt marsh habitat.
- Removal of vegetation in wetland habitat will be conducted with a qualified biological monitor present. This monitor will watch for special-status wildlife species and temporarily stop work if special-status species are encountered. Wildlife will be allowed to escape before work is resumed. Monitors with the appropriate qualifications to handle special-status species will be allowed to move special-status species to safe locations as permitted by their authorizations.
- Temporarily affected wetlands will be restored by removing construction related debris and trash. Affected areas will be seeded with a native and naturalized seed mix.

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### Environmental Resources Worker Training Program

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- The Service-approved biologist will provide training to field management and construction personnel on the importance of protecting environmental resources. Communication efforts and training will take place during preconstruction meetings so that construction personnel are aware of their responsibilities and the importance of compliance.
- Construction personnel will be educated on the types of sensitive resources located in the project area and the measures required to avoid impacts on these resources. Materials covered in the training program will include environmental rules and regulations for the specific project and requirements for limiting activities to the construction right-of-way and avoiding demarcated sensitive resources areas. Training seminars will educate construction supervisors and managers on:
  - i. The need for resource avoidance and protection.
  - ii. Construction drawing format and interpretation.
  - iii. Staking methods to protect resources.
  - iv. The construction process.
  - v. Roles and responsibilities.
  - vi. Project management structure and contacts.
  - vii. Environmental commitments.
  - viii. Emergency procedures.
- If new construction personnel are added to the project, the contractor will ensure the personnel receive the mandatory training before starting work. A representative will be appointed during the employee education program to be the contact for any employee or contractor who might inadvertently kill or injure a listed species or who finds a dead, injured, or entrapped individual. The representative's name and telephone number will be provided to the USFWS before the initiation of ground disturbance.

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### Special-Status Plant Species Protection

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- Special-status plant surveys required for project-specific permit compliance will be conducted within 1 year prior to initiating construction. The purpose of these surveys will be to verify the locations of special-status plants identified in previous surveys are extant, identify any new special-status plant occurrences, and cover any portions of the project area not previously identified. The extent of mitigation of direct loss of or indirect impacts on special-status plants will be based on these survey results.
- If found, the locations of special-status plants in proposed construction areas will be recorded using a global positioning system (GPS) unit and flagged.
- Any special-status plant species observed during surveys will be reported to the Service and CDFW so the observations can be added to the California Natural Diversity Database (CNDDB).

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### Special-Status Wildlife Species Protection

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- If individuals of listed wildlife species may be present and subject to potential injury or mortality from construction activities, a Service or CDFW-approved biologist will conduct

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a preconstruction survey. If a listed wildlife species is discovered, construction activities will not begin in the immediate vicinity of the individual until the Service or CDFW is contacted, depending on the species, and the individual has been allowed to leave the construction area.

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- Minimum qualifications for the qualified biologist will be a 4-year college degree in biology or related field and 2 years of professional experience in the application of standard survey, capture, and handling methods for the species of concern. However, in the case of fully protected species, no capture or handling will be done.
  - Any special-status mammal, bird, or other species observed during surveys will be reported to the Service and CDFW so the observations can be added to the California Natural Diversity Database (CNDDDB).
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### Mammals

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Only two special-status mammal species occur in Suisun Marsh: salt marsh harvest mouse and Suisun shrew. Suisun shrews use habitat similar to salt marsh harvest mouse, so any measures implemented to protect salt marsh harvest mouse would also apply to shrews. The following measures, which include updated methods will be implemented<sup>1</sup>:

- If individuals of salt marsh harvest mouse and/or Suisun shrew may be present and subject to potential injury or mortality from construction activities, a qualified biologist will conduct a preconstruction survey or habitat assessment. Minimum qualifications for the qualified biologist will be a 4-year college degree in biology or related field and 2 years of professional experience in the application of standard survey, capture, and handling methods for the species of concern. However, in the case of fully protected species, no capture or handling will be done. Fully protected wildlife species are listed in Section 6.3, "Wildlife" in the SMP EIS/EIR. Any salt marsh harvest mouse and/or Suisun shrew observed during surveys will be reported to CDFW so the observations can be added to the California Natural Diversity Database
- A CDFW- and USFWS-approved biologist with previous salt marsh harvest mouse experience will be on-site during construction activities occurring in wetlands. The biologist will document compliance with the project permit conditions and avoidance and conservation measures. The biologist has the authority to stop project activities if any requirement associated with these measures is not being fulfilled. If the biologist has requested a work stoppage as a result of mortality of any of the listed species, USFWS and CDFW will be notified within 1 day by e-mail or telephone.
- Current duck club-related vegetation maintenance, specifically mowing, will continue within the Project Disturbance Area in order to prevent the development of desirable habitat. Vegetation will be mowed to as short as possible and will be mowed at least four times per year or as needed to prevent vegetation from growing taller than 1 inch.
- A USFWS-approved biologist with previous salt marsh harvest mouse monitoring and surveying experience will identify suitable salt marsh habitat for the mouse before project initiation.
- Disturbance of native or beneficial tidal wetland vegetation will be avoided to the extent feasible to reduce potential impacts on salt marsh harvest mouse habitat. If tidal wetland vegetation cannot be avoided, it will be removed by hand. The USFWS-approved biologist will be on site to monitor all tidal wetland vegetation removal activities.
- The upper 6 inches of soil excavated within salt marsh harvest mouse habitat will be stockpiled separately, excluding invasive plants if feasible.
- In staging areas where habitat is to be disturbed, vegetation must be cleared to bare ground or stubble no higher than 1 inch.

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<sup>1</sup> Environmental Commitments relating to the salt marsh harvest mouse and Suisun shrew have been updated since the SMP EIS/EIR was certified in 2011. These revisions incorporate recent feedback from CDFW and USFWS for protection of these species.

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- To prevent salt marsh harvest mouse from moving through the Project Site during construction, temporary exclusion fencing will be placed around a defined work area before construction activities start and immediately after vegetation removal. The fence should be made of a material that does not allow salt marsh harvest mouse to pass through or over, and the bottom should be buried to a depth of 2 inches so that mice cannot crawl under the fence. Any supports for the salt marsh harvest mouse exclusion fencing must be placed on the inside of the project area.
- Prior to the start of daily construction activities during initial ground disturbance, the USFWS- approved biological monitor will inspect the salt marsh harvest mouse–proof boundary fence to ensure that it has no holes or rips and the base is still buried. The fenced area also will be inspected to ensure that no mice are trapped in it. Any mice found along and outside the fence will be closely monitored until they move away from the construction area.
- In lieu of fencing that excludes mice from entering the construction area, vegetation clearing and construction will not occur in salt marsh harvest mouse habitat.
- If any small rodent is discovered, construction activities will cease in the immediate vicinity of the individual until CDFW and USFWS are contacted or the individual has been allowed to leave the construction area on its own.

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### Birds

The following BMPs are applicable if construction occurs during the nesting season:

- Preconstruction surveys will be performed to determine whether nesting birds, including migratory birds, raptors, and special-status bird species, are present within or immediately adjacent to the project sites and associated staging and storage areas if activities would occur during active nesting periods. Bird species using the managed wetland habitat include waterfowl, shorebirds, Suisun song sparrow, Suisun common yellowthroat, and several other resident and migratory songbirds.
- All woody and herbaceous vegetation will be removed from construction areas (earthwork areas), during the nonbreeding season (September 1–February 1) to the extent feasible, to minimize effects on nesting birds.
- During the breeding season, all vegetation subject to impact will be maintained to a height of approximately 6 inches to minimize the potential for nesting.
- If active nests or migratory birds are found within the boundaries of the construction area, an acceptable buffer width and appropriate measures will be developed in coordination with CDFW.
- Inactive migratory bird nests (excluding raptors) located outside the construction areas will be preserved. If an inactive migratory bird nest is located in the area of effect, it will be removed before the start of the breeding season (approximately February 1).
- Impacts on great blue heron rookeries will be avoided; mature trees will not be removed, and nearby work will occur outside the nesting season.

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### Raptors

The following BMPs are applicable if construction occurs during the nesting season:

- Preconstruction surveys will be performed before and during the raptor nesting season (bimonthly, i.e., two times per month) to identify existing nests that may be used during the nesting season.
  - Raptors may nest from later winter through mid-summer; therefore, multiple nesting season surveys will be performed.
  - CDFW will be notified of all raptor nests located during the preconstruction surveys. If a raptor nest is located within the recommended buffer, the project proponents will coordinate with CDFW to determine an acceptable buffer width.
  - If an active raptor nest is found outside the construction areas, a buffer zone will be developed in coordination with CDFW. For special-status species, a larger buffer will be required (e.g., 0.5-mile Swainson's hawk buffer). The project proponents will coordinate with CDFW prior to project implementation to determine the species-specific buffer widths.
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### California Clapper Rail and California Black Rail

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If construction activities are necessary during the breeding season, preconstruction surveys for California clapper rail and black rail will be conducted by a Service-approved biologist at and adjacent to areas of potential tidal and managed wetlands habitat for California clapper rail and black rail. The surveys will focus on potential habitat that may be disturbed by construction activities during the breeding season to ensure that these species are not nesting in these locations.

*Exception:* Only inspection, maintenance, research, or monitoring activities may be performed during the California clapper rail or black rail breeding season in areas within or adjacent to California clapper rail breeding habitat with approval of the USFWS and CDFW under the supervision of a qualified biologist

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### California Least Tern

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No activities will be performed within 300 feet of an active least tern nest during the least tern breeding season, April 15 to August 15 (or as determined through surveys).

*Exception:* Only inspection, maintenance, research, or monitoring activities may be performed during the least tern breeding season in areas within or adjacent to least tern breeding habitat with approval of the Service and CDFW under the supervision of a qualified biologist.

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### Western Pond Turtle

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- Preconstruction surveys will be performed in all managed wetlands and in adjacent sloughs that provide suitable habitat for western pond turtle. If pond turtles are identified, the area will be surveyed for nesting sites, if construction activities would occur during the nesting season.
  - If pond turtles are identified in managed wetlands to be breached, the ponds and associated drainages will be dewatered and, to the extent feasible, any turtles observed will be captured and released to other suitable locations within a nearby managed wetland or drainage.
  - In-water construction activities, such as levee construction and levee breaching, will occur during the in-channel work window of August 1 through November 30.
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### Biological Monitoring

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- The project proponents will provide a biologist/environmental monitor who will be responsible for monitoring implementation of the conditions in the state and federal permits (federal Clean Water Act [CWA] Section 401, 402, and 404; ESA Section 7; Fish and Game Code Section 1602 and/or 2050; project plans [SWPPP]; and EIS/EIR mitigation measures).
  - The biologist/environmental monitor will determine the location of environmentally sensitive areas adjacent to each construction site based on mapping of existing land cover types and special-status plant species. If such maps are not available, the biologist/environmental monitor will map and quantify the land cover types and special-status plant populations in the proposed project footprint prior to construction.
  - To avoid construction-phase disturbance to sensitive habitats immediately adjacent to the project area, the monitor will identify the boundaries of sensitive habitats and add at least a 100-foot buffer, where feasible, using orange construction barrier fencing. The fencing will be mapped on the project designs. Erosion-control fencing also will be placed at the edges of construction where the construction activities are upslope of wetlands and channels to prevent washing sediment off site. The sensitive habitat and erosion-control fencing will be installed before any construction activities begin and will be maintained throughout the construction period.
  - The biologist/environmental monitor will ensure the avoidance of all sensitive habitat areas outside direct project footprints, including patches of tidal wetland along channel banks, during dredging operations, to the extent practical.
  - Plants for revegetation will primarily come from natural recruitment. Plants imported to the restoration areas will come from local stock, and to the extent possible, local nurseries. Only native and/or naturalized plants will be used for restoration efforts.
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### Construction Period Restrictions

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Timing of restoration construction activities will depend on the type of activity, presence or absence of sensitive resources, tides, and/or water management in wetlands. In general, landside work will occur between September and November. In-water activities will be conducted during the months of September through November. Working outside this window will require additional approvals from the resource agencies. Other timing restrictions may be necessary during the hunting season, such as limiting work to days other than Saturday, Sunday, and Wednesday.

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### Nonnative Plant Control

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The following measures will be included in the project construction specifications to minimize the potential for the introduction of new noxious weeds and the spread of weeds previously documented in the project area.

- Use certified, weed-free, imported erosion control materials (or rice straw in upland areas).
- Coordinate with the county agricultural commissioner and land management agencies to ensure that the appropriate BMPs are implemented.
- Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of noxious weeds.
- Clean equipment at designated wash stations after leaving noxious weed infestation areas.
- As feasible, treat isolated infestations of noxious weeds identified in the project area with approved eradication methods at an appropriate time to prevent further formation of seed, and destroy viable plant parts and seed.
- Minimize surface disturbance to the greatest extent possible.
- Use certified weed-free native mixes for any restoration planting or seeding as may be necessary, as provided in the revegetation plan developed in cooperation with CDFW. Mulch with certified weed-free mulch. Rice straw may be used to mulch upland areas.
- Use native or naturalized, noninvasive species or nonpersistent hybrids in erosion control plantings to stabilize site conditions and prevent invasive species from colonizing.
- Use only herbicides registered in California for use in or adjacent to aquatic environments, and only when other means of invasive plant control are demonstrated to be infeasible or ineffective.

### Cultural Resources

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CUL –MM-1: Document and evaluate the Montezuma Slough rural historic landscape, assess impacts, and implement mitigation measures to lessen impacts. **(Not Applicable)**

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CUL –MM-2: Evaluate previously recorded cultural resources and fence NRHP- and CRHR – eligible resources prior to ground disturbing activities. **(Not Applicable)**

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CUL –MM-3: Protect known cultural resources from damage incurred by inundation through plan design. **(Not Applicable)**

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CUL –MM-4: Resolve adverse effects (to known cultural resources) prior to construction. **(Not Applicable)**

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CUL –MM-5: Conduct cultural resource inventories and evaluations and resolve any adverse effect.

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The contractor immediately will cease work within 100 feet of the find. All construction personnel will leave the area. Vehicles and equipment will be left in place until a qualified archaeologist identifies a safe path out of the area. The on-site supervisor will flag or otherwise mark the location of the find and keep all traffic away from the resource. The on-site supervisor immediately will notify the lead state or federal agency of the find.

- The lead federal agency is responsible for compliance with NAGPRA (43 CFR 10) if inadvertent discovery of Native American remains occurs on federal lands. The lead federal

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agency is responsible for compliance with state laws relating to the disposition of Native American burials (Public Resources Code [PRC] 5097 and California Health and Safety Code 7050.5[b]) for human remains discoveries on non-federal lands. The lead federal agency is responsible for compliance with NAGPRA;

- If human remains of Native American origin are discovered during ground disturbing activities on non-federal land, DWR or the Corps must comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (NAHC) (PRC 5097). If human remains are discovered or recognized in any location other than a dedicated cemetery, DWR or the Corps will not allow further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
  - a. the Solano County coroner has been informed and has determined that no investigation of the cause of death is required; and
  - b. if the remains are of Native American origin, the descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98; or
    1. the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 48 hours after being notified by the NAHC.
- If any previously unknown historic or archaeological artifacts are discovered while accomplishing the authorized work, the landowner must stop work immediately and notify the Corps. The activity is not authorized until the requirements of Section 106 of the NHPA have been satisfied.

### Greenhouse Gases

The following BMPs will be implemented in order to comply with the Department of Water Resources' (DWR) Greenhouse Gas Emissions Reduction Plan (GGERP):

#### Pre-Construction and Final Design BMPs

The following controls will be implemented, as applicable, at all construction sites:

- Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high efficiency technologies are appropriate and feasible for the project or specific elements of the project.
- Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on-road engines.
- Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels, such as propane or solar, to power generators to the maximum extent feasible.
- Evaluate the feasibility and efficacy of producing concrete on-site and specify that batch plants be set up on-site or as close to the site as possible.
- Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing while preserving all required performance characteristics.
- Limit deliveries of materials and equipment to the site to off peak traffic congestion hours.

#### Construction BMPs

The following measures will be implemented at all construction sites:

- Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by the State airborne toxics control measure Cal. Code of Regs., tit. 13, §2485). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement
- Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in an Air Quality Control Plan prior to commencement of construction.
- Implement a tire inflation program on the jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks

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for equipment that remains on-site. Check vehicles used for hauling materials offsite weekly for correct tire inflation. Procedures for the tire inflation program shall be documented in an Air Quality Control Plan prior to commencement of construction.

- Develop a project specific ride share program to encourage carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
  - Reduce electricity use in temporary construction offices by using high efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, lights, air conditioners, heaters, and other equipment each day at close of business. **(Not Applicable)**
  - For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box type trailer is used for hauling, a SmartWay2 certified truck will be used to the maximum extent feasible.
  - Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or lower maximum strength where appropriate. **(Not Applicable)**
  - Develop a project specific construction debris recycling and diversion program to achieve a documented 50% diversion of construction waste.
  - Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution minimize, to the extent possible, uses of public roadways that would increase traffic congestion.
-