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Grand Island Levee Seepage Cutoff Wall Project Mitigation Monitoring and Reporting Program State Clearinghouse No. 2019079082



P R E P A R E D F O R

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P R E P A R E D B Y

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Cover photo: Grand Island's Project levee.

1 INTRODUCTION

Reclamation District No. 3 (RD 3, District) plans to repair approximately 1,250 linear feet of levee on the west side of Grand Island, along the left river bank of Steamboat Slough, to address critical seepage problems by constructing a cutoff wall (Project). In accordance with the California Environmental Quality Act (CEQA), RD 3 prepared an Initial Study/Mitigated Negative Declaration (IS/MND) that identifies potential Project-related effects. RD 3 is the CEQA lead agency, and California Department of Water Resources (DWR) and California Department of Fish and Wildlife (CDFW) are the CEQA responsible agencies. The IS/MND identifies mitigation measures that would reduce or eliminate any potentially significant effects.

As the nature of this levee repair site has been deemed “critical,” the Project qualifies for funding under the DWR Flood System Repair Project. An inspection by DWR found free-flowing and active underseepage that occasionally carries material (soil) from the landside levee toe. Four sinkholes were observed at the downstream end of the site, and seepage along the ditch and boils are reported during high-water events. Poor levee performance associated with these issues dates as far back as 1986 and continues to recur. Previous attempts have been made to repair the site but have proven unsuccessful. DWR evaluated pre-feasibility repair alternatives of constructing a drained seepage berm, cutoff wall, and no action; the cutoff wall was deemed the most appropriate for the circumstances.

2 PURPOSE

In accordance with CEQA (California Public Resources Code Section 21081.6, and Section 15074[d] of the CEQA Guidelines), this Mitigation Monitoring and Reporting Program (MMRP) is designed to ensure compliance with the mitigation measures outlined in the Project’s IS/MND. The results of the environmental analyses, including identified mitigation measures, are documented in the IS/MND (Stillwater Sciences and MBK Engineers 2019). This MMRP identifies the mitigation measures included in the Project to avoid or minimize potentially significant environmental impacts and includes the monitoring and/or reporting provisions that will be required to ensure proper implementation of these measures.

Table 1 provides a matrix listing the following components of this MMRP:

Mitigation Measure: The mitigation measures are taken verbatim from the Project’s IS/MND (Stillwater Sciences and MBK Engineers 2019).

Responsible Entity: Identifies the entity responsible for implementing each mitigation measure.

Monitoring/Enforcement Entity: Identifies the agency, consultant, or other entity responsible for overseeing that mitigation occurs.

Mitigation Timing: Identifies a general schedule for implementing each mitigation measure.

Action: Describes the type of action taken to verify implementation of the mitigation.

Table 1. Mitigation Monitoring and Reporting Program for the Grand Island Levee Seepage Cutoff Wall Project.

Mitigation Measure	Responsible Entity	Monitoring/ Enforcement Entity	Mitigation Timing	Action
<i>Biological Resources</i>				
<p>BIO-1. All contractors and equipment operators will be provided worker environmental awareness training to educate them on the environmental resources of the Project Area, and the required protection measures. Training will include information about the federal and California Endangered Species Acts (ESA and CESA, respectively), and the consequences of noncompliance with these acts. Workers will be informed about the presence, life history, and habitat requirements of all special-status species that may be affected in the Project Area. Training will also include information on state and federal laws protecting nesting birds and water resources. This training will be conducted prior to construction and will be provided to any new staff/contractors added during the Project.</p>	RD 3 and Primary Construction Contractor	CDFW	Prior to any site disturbance	Training conducted and sign-in sheets signed by construction crewmembers
<p>BIO-2. Surveys for western pond turtles and any active pond turtle nests (during the nesting and emergence of hatchling season, April through November) will be conducted by a qualified biologist within seven days prior to onset of staging or construction activities. If a western pond turtle nest is found, a 100-foot no-disturbance buffer zone will be established around the nest using flagging, fencing, and/or signage as appropriate. No construction activities will occur within the buffer zone until a qualified biologist has determined that the nest is not in use. If an active western pond turtle nest is found, CDFW will be notified to determine the appropriate course of action. If a western pond turtle is observed at any time before or during construction, it will be left alone to move out of the area on its own or may be relocated by a qualified biologist to a suitable aquatic habitat outside of the Project Area; translocation of turtles can only be performed in consultation with CDFW, and by an individual possessing a valid scientific collecting permit.</p>	RD 3 and Primary Construction Contractor	CDFW	Prior to any site disturbance and ongoing during construction	Western pond turtle surveys and avoidance
<p>BIO-3. For Project activities conducted during the bird breeding season (February 1–September 15), a pre-construction nest survey will be conducted. The survey will include areas suitable for ground-nesting birds as well as trees, shrubs, buildings, or other structures suitable for nesting within 300 feet of the Project Area. If active nests (nests containing eggs or young) are identified, a no-disturbance buffer zone will be established around the nest using flagging, fencing, and/or signage as appropriate. No construction activities will occur within the buffer zone until a qualified biologist has determined that the young have fledged or that construction activities within the buffer zone are not disturbing the nesting birds. The width of the buffer zone will be determined by a qualified biologist in coordination with CDFW; recommended buffers are 500 feet for raptors and 100 feet for other birds.</p>	RD 3 and Primary Construction Contractor	CDFW	Prior to any site disturbance and ongoing during construction, if applicable	Nesting bird surveys and monitoring are conducted in accordance with mitigation requirements

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<p>BIO-4. The following measures will be implemented between March 1 and September 15 to minimize effects on Swainson’s hawk (<i>Buteo swainsoni</i>) and other protected raptors:</p> <p>a) In order to avoid take (FGC § 86) of protected raptors (FGC § 3503.5), including Swainson’s hawk, three pre-construction raptor nest surveys will be conducted within a 0.25-mile buffer of the Project Area by a CDFW-approved biologist in order to identify active nests in the Project vicinity. Surveys should be completed for at least two Swainson’s hawk survey periods immediately prior to initiating any Project-related construction work (as described in the Swainson’s Hawk Technical Advisory Committee’s [2000] Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley). At least one survey will be conducted no more than 15 days prior to the initiation of construction activities. The results of the survey will be submitted to the District and CDFW.</p> <p>b) If active nests are found, an initial temporary nest disturbance buffer of 0.25 mile will be established. If Project-related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an on-site biologist/monitor experienced with raptor behavior will be retained by the Project proponent to monitor the nest. The monitor and the Project proponent will consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals.</p> <p>c) Work may only be allowed to proceed within the temporary nest disturbance buffer if raptors are not exhibiting agitated behavior such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW. Based on the behavior observed, the buffer may be reduced if the birds are tolerant of construction activities. The designated on-site biologist/monitor will have the authority to stop work if raptors are exhibiting agitated behavior.</p>	<p>RD 3 and Primary Construction Contractor</p>	<p>CDFW</p>	<p>Prior to any site disturbance and ongoing during construction, if applicable</p>	<p>Raptor nest surveys and monitoring conducted in accordance with mitigation requirements</p>

Mitigation Measure	Responsible Entity	Monitoring/ Enforcement Entity	Mitigation Timing	Action
<i>Cultural and Tribal Cultural Resources</i>				
<p>CUL-1. The following measures will be implemented during Project excavation to mitigate the inadvertent finds of archaeological resources, cultural resources, tribal cultural resources, or human remains:</p> <p>a) If intact archaeological deposits or features are found during excavation, an archaeologist will conduct an immediate significance evaluation. If the deposits or features are determined to be significant, the archaeologist will work with Project personnel to avoid these resources and preserve them in place. If avoidance is not possible, then the archaeological team will work with the lead agency to develop an appropriate data recovery plan.</p> <p>b) Should human remains be encountered during excavation, work within the immediate area will be halted and the Sacramento County Coroner will be notified immediately. If the remains are determined to be Native American, then the Native American Heritage Commission (NAHC) will be notified within 24 hours as required by Public Resources Code 5097. The NAHC will notify the designated Most Likely Descendant who will provide recommendations for the treatment of the remains within 48 hours of being granted access to the site.</p>	<p>Primary Construction Contractor</p>	<p>State Historic Preservation Office (SHPO)</p>	<p>Ongoing during construction</p>	<p>If there are finds of undocumented cultural materials and/or human remains, they are reported and protected until evaluated by appropriate individuals</p>

Mitigation Measure	Responsible Entity	Monitoring/ Enforcement Entity	Mitigation Timing	Action
<i>Hazards and Hazardous Materials</i>				
<p>HAZ-1. Following is a list of Best Management Practices (BMPs) that will be used during Project construction to avoid and minimize potential effects from hazards and hazardous materials:</p> <ul style="list-style-type: none"> a) No potentially hazardous materials will be stored in a location where there is potential to enter any waterway and/or contaminate aquatic resources. b) All construction materials with the potential to pollute runoff will be handled with care and stored under cover and/or surrounded by berms when rain is forecast or during wet weather. c) An effort will be made to store only the amount of a potentially hazardous product necessary to complete the job. d) Materials, fuels, liquids and lubricants, and equipment supplies stored onsite will be stored in a neat, orderly manner, in their appropriate containers, with the original manufacturer’s label and, if possible, in an enclosure. e) Any hazardous materials will be stored and labeled according to local, state, and federal regulations. f) If drums must be stored without overhead cover, they will be stored at a slight angle to reduce corrosion and ponding of rainwater on the lids. g) Substances will not be mixed with one another unless recommended by the manufacturer. h) Manufacturer's recommendations for proper use and disposal of a product will be followed. i) Whenever possible, all of a product will be used up before disposal of its container. j) If surplus product must be disposed of, the manufacturers or the local and state recommended methods for proper disposal will be followed. 	Primary Construction Contractor	RWQCB	Ongoing during construction	All identified BMPs are implemented such that potential contaminants are isolated from waterways to the extent practicable and feasible

Mitigation Measure	Responsible Entity	Monitoring/ Enforcement Entity	Mitigation Timing	Action
<p>HAZ-2. The following are measures to prevent, control, and minimize impacts from a spill of a hazardous, toxic, or petroleum substance during construction of the Project:</p> <p>a) Minor spills are those that can be controlled by onsite personnel. The following actions will occur upon discovery of a minor spill:</p> <ul style="list-style-type: none"> • The spread of the spill will be contained. • If the spill occurs on impermeable surfaces, such as any temporary surfaces installed for pollution prevention during construction, it will be cleaned up using “dry” methods (i.e., absorbent materials, cat litter, and/or rags). • If the spill occurs in permeable substrate areas, it will be immediately contained by constructing an earthen dike. The contaminated soil will be excavated and properly disposed. • If the spill occurs during rain, the impacted area will be covered to avoid runoff, and appropriate clean-up steps will be taken after precipitation has ceased. • All steps taken to report and contain a spill will be recorded. <p>b) Onsite personnel should not attempt to control major spills until the appropriate and qualified emergency response staff has arrived at the site. Failure to report major spills can result in significant fines and penalties.</p> <ul style="list-style-type: none"> • If a major spill occurs, the Governor's Office of Emergency Services Warning Center will be notified at (800) 852-7550 in addition to local authorities. • For spills of federal reportable quantities, the National Response Center will also be notified at (800) 424-8802. The federal reportable spill quantity for petroleum products is any oil spill that (1) violates applicable water quality standards, (2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or (3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines. • A written report will be sent to all notified authorities. 	<p>Primary Construction Contractor</p>	<p>RWQCB</p>	<p>Ongoing during construction</p>	<p>All identified BMPs are implemented such that potential contaminants are isolated from waterways to the extent practicable and feasible</p>

Mitigation Measure	Responsible Entity	Monitoring/ Enforcement Entity	Mitigation Timing	Action
<p>c) Diesel fuel, oil, gasoline, and lubricants are considered petroleum products. These materials will be handled carefully to minimize their exposure to storm water. The risks in using petroleum products will be reduced by following these steps:</p> <ul style="list-style-type: none"> • Waste oil and other petroleum products will not be discharged into the ground or other water bodies. • Petroleum products will be stored in tightly sealed containers that are clearly labeled, in a covered area, within prefabricated spill containment devices, earthen berms, or similar secondary containment features. • Onsite vehicles will be monitored for fluid leaks and receive regular preventative maintenance to reduce the chance of leakage (e.g., check for and fix fuel oil leaks in construction vehicles on a regular basis). • Bulk storage tanks having a capacity of more than 55 gallons will be provided with a secondary containment measure. Containment can be provided by a prefabricated temporary containment mat, a temporary earthen berm, or other measure. • Bulk fuel or lubricating oil dispensers will have a valve that must be held open to allow the flow of fuel into construction vehicles. During fueling operations, the contractor will have personnel present to detect and contain spills. <p>d) The following additional spill control and cleanup practices will be followed:</p> <ul style="list-style-type: none"> • Spills will be contained and cleaned up immediately after discovery. • Manufacturer's methods for spill cleanup of a material will be followed as described on the material safety data sheet (MSDS) sheets (kept with product containers). • Materials and equipment needed for cleanup procedures will be kept readily available onsite, either at an equipment storage facility or on the contractor's trucks. Equipment to be kept onsite will include, but not be limited to, brooms, dust pans, shovels, granular absorbents, sand, sawdust, absorbent pads and booms, plastic and metal trash containers, gloves, and goggles. • Onsite personnel will be made aware of cleanup procedures, the location of spill cleanup equipment, and proper disposal procedures. • Toxic, hazardous, or petroleum product spills required to be reported by regulations will be documented and a record of the spills will be kept with Project documents. • If a spill occurs that is reportable to the federal, state, or local agencies, the contractor is responsible for making and recording the reports. 	<p>Primary Construction Contractor</p>	<p>RWQCB</p>	<p>Ongoing during construction</p>	<p>All identified BMPs are implemented such that potential contaminants are isolated from waterways to the extent practicable and feasible</p>

Mitigation Measure	Responsible Entity	Monitoring/ Enforcement Entity	Mitigation Timing	Action
<p>HAZ-3. The following are measures to reduce the potential for fire:</p> <ul style="list-style-type: none"> a) Smoking will be permitted only in designated smoking areas or within the cabs of vehicles or equipment. b) Every fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C, and all flammable materials will be removed from equipment parking and storage areas. 	Primary Construction Contractor	Primary Construction Contractor	Ongoing during construction	All identified BMPs are implemented such that potential for fire is reduced
Soils and Hydrology				
<p>HYD-1. The following BMPs will be implemented during the Project to avoid and minimize potential impacts on waters from erosion:</p> <ul style="list-style-type: none"> a) Construction will occur only during dry periods. b) Prior to storm events, all construction activities shall cease, and appropriate erosion control measures implemented. c) Soil, silt, or other organic materials will not be placed, stockpiled, or stored where such materials could pass into surface water or surface water drainage courses during unexpected rain events. d) All areas disturbed by Project activities will be protected from washout or erosion prior to the onset of the rainy season. e) All temporarily affected areas will be restored to pre-construction contours and conditions upon completion of construction activities. f) Prior to initiation of any waterside work, erosion control measures will be utilized throughout all phases of operation where silt and/or earthen fill threaten to enter waters of the U.S and/or state. 	Primary Construction Contractor	RWQCB	Ongoing during construction	All identified BMPs are implemented such that potential impacts on waters from erosion are avoided or minimized to the extent practicable and feasible

3 REFERENCES

Stillwater Sciences and MBK Engineers. 2019. Initial Study/Mitigated Negative Declaration for the Grand Island Levee Seepage Cutoff Wall Project, Sacramento County, California. Final. Prepared by Stillwater Sciences, Berkeley, California and MBK Engineers, Sacramento, California for Reclamation District No. 3, Walnut Grove, California.