Soil Investigations for Data Collection in the Delta Mitigation and Monitoring Reporting Plan (MMRP)

July 2020

California Department of Water Resources

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Sacramento, CA 95814

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PURPOSE OF THE MMRP

The California Environmental Quality Act (CEQA) requires that agencies approving projects after adopting Mitigated Negative Declarations (MNDs) must take affirmative steps to determine that all approved mitigation measures are implemented subsequent to project approval.

This Mitigation Monitoring and Reporting Plan (MMRP) has been prepared by the California Department of Water Resources (DWR) pursuant to CEQA for Soil Investigations for Data Collection in the Delta (Investigations), which has been analyzed in the Initial Study – Mitigated Negative Declaration (IS/MND) for Soil Investigations for Data Collection in the Delta. DWR will adopt this MMRP at the time it adopts "CEQA Findings" pursuant to CEQA Guidelines section 15074[d].

Implementation of the mitigation measures would reduce impacts to below a level of significance for biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, tribal cultural resources, and wildfire.

Mitigation measures must be implemented within the time periods indicated in the table that appears below. DWR as the lead agency has the primary responsibility for monitoring compliance of all mitigation measures and for reporting to the applicable regulatory agencies on the progress in implementing those measures, where required. These monitoring and reporting requirements are set forth in the IS/MND and are summarized at the front of the attached table.

The remainder of this MMRP consists of the checklist that identifies the mitigation measures by resource for each project component. The following items are identified for each mitigation measure: Mitigation Measure, Implementation Schedule, Responsible Party, and Status/Date/Initials. The "Mitigation Measure Number" and "Mitigation Measure" columns identify and detail the specific mitigation measure found in the IS/MND. The "Timing" column shows the date or phase when each mitigation measure will be implemented. The "Responsible Party" column identifies the agency or classification of a person within the lead agency that is primarily responsible for implementing the mitigation measure. The "Completion Date" and "Verified By" shall be completed by the Permittee during preparation of each Status Report and the Final Mitigation Report and must identify the date that the mitigation measure implementation was completed and will include initials of the person determining the completion. If the mitigation measure was not completed or other issues have arisen preventing the completion, this should be documented in the "Comments" column.

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM AES-1a	Each Impact Area will be returned to as close to pre-activity conditions as possible. This will be documented by still photos taken pre- and post-activity.	At the conclusion of impact area disturbance	Construction Contractor			
MM AES-1b	No building structures will be removed or disturbed. Soil investigation activities will occur at a distance greater than 100 feet (30.5 meters) from residences and small business operations. If fencing needs to be removed for access, it would be replaced after the work is completed.	During construction	Construction Contractor			
MM AES-1c	No trees or vines will be removed during exploration activities; and only minor disturbances to vegetation would occur during mobilization of equipment. This minor disturbance may consist of mowing, removal of a few tree limbs, or trimming of bushes for site access. However, if access requires removal of any vegetation, the landowner would be consulted first to minimize the impact to both vegetation and the landowner.	During construction	Construction Contractor, Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM AES-2a	Navigational lighting will be used as needed for overwater work, but will meet the standards required for waterway safety, and are will not increase the existing ambient lighting of the area in a substantial way. Any lighting used on barges or drill ships will not exceed the standards of brightness for standard navigational safety requirements.	Before and during construction	Construction Contractor			
MM AES-2b	All work will occur between sunrise and sunset.	During construction	Construction Contractor, Biologist			
MM AGR-1	Any proposed soil investigation activities that occur on agricultural lands will be grouted in accordance with materials that conform to ANSI and ASTM standards from the full depth to five feet (1.5 meters) below the surface. The final five feet (1.5 m) of topsoil will be replaced to return the Impact Area to as close to pre-activity conditions as possible. The backfill procedure will be in accordance with State of California Bulletin 74-81/74-90 and local county standards.	At the conclusion of impact area disturbance	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM AIR-1a	Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.	During construction	Construction Contractor			
MM AIR-1b	Cover or maintain at least six feet (1.8 meters) of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways will be covered.	During construction	Construction Contractor			
MM AIR-1c	All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads as needed. Use of dry power sweeping and blower devices is prohibited.	During construction	Construction Contractor, Engineer			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM AIR-1d	Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).	During construction	Construction Contractor, Engineer			
MM BIO-1a (General Biological Measures)	All litter, debris, unused materials, rubbish, supplies, or other material will be appropriately stored in closed containers until it can be removed from project sites and deposited at an appropriate disposal or storage site. All trash that is brought to a project site during soil investigation activities (e.g., plastic water bottles, plastic lunch bags, cigarettes) shall be removed from the site daily.	During construction	Construction Contractor, Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-1b (General Biological Measures)	As stated in the project description, all on-land soil investigation Impact Areas will be located outside of wetlands as defined in the Corps of Engineers Wetlands Delineation Manual (USACE 1987). Evaluation of conditions at each site will be conducted by qualified wetland delineators. If after review of applicable data sources, nearby aquatic resources are identified for on-land soil investigation sites, including those that meet the Corps definition of wetlands or non-wetland waters, wetland delineators will participate in the site surveys for those sites and relocate them outside of the boundaries of observed aquatic resources.	Before construction	Construction Contractor, Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-1c (General Biological Measures)	Over-water sites will be located within portions of navigable channels or sloughs that generally do not provide appropriate habitat for terrestrial plant or wildlife species, and will be authorized under the Clean Water Act sections 401 and 404, and Fish and Game Code section 1602 et seq.	Before construction	Construction Contractor, Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-1d (General Biological Measures)	A qualified team of biologists will conduct a habitat assessment and reconnaissance level surveys approximately two weeks prior to the onset of ground disturbing soil investigation activities for any special status plants and wildlife that have the potential to occur within the project area. If the biologists identify the potential for special status wildlife impacts within the Impact Area and associated standard species buffers based on the site reconnaissance, the location will be shifted the minimum distance necessary to reduce the potential for biological impacts to a less than significant level without increasing impacts to other resources to above a level of significance. If a suitable location cannot be determined within adjacent areas, then the soil investigation at that location will not be conducted.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-1e (General Biological Measures)	The qualified biologist(s) must, at a minimum, have experience conducting surveys to identify the specific species and associated habitat that could occur on site.	Before and during construction	Biologist			

MM BIO-1f (General Biological Measures)	A qualified biologist will be on-site for all project activities and will conduct an environmental awareness training session for all new field personnel prior to the start of work each day. Throughout the project, any new staff will be provided training before they begin working on the project. A running list of trained personnel will be kept on site in the project permit binder and includes name, date of training, work site and their signature. At a minimum, the training shall: i. include a description of each species with the potential to occur, including physical description, habitat needs, and life history as well as a discussion of the importance of avoiding impacts to special status wildlife. ii. explain the general measures that are being implemented to conserve these species as they relate to the project and project area, and	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
	procedures to follow should they encounter wildlife during work. iii. explain the stop work authority of biologists and/or cultural resource specialists.					
MM BIO-1g (General Biological Measures)	Any observations of federally or state-listed species or California Species of Special Concern will be reported to CDFW within three (3) working days of the observation, and the observation(s) will be submitted to the California Natural Diversity Database (CNDDB). Any observations of federally listed species will also be reported to the U.S. Fish and Wildlife Service.	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-1h (General Biological Measures)	All federally or state-listed species observed will be allowed to leave the Impact Area on their own. If the biologist determines that continuing activities could potentially cause unpermitted take under federal or State law to a federally or state-listed species, activities must cease. Work may not resume until the on-site biologist has determined there is no longer the possibility of causing unpermitted take under federal and State law.	Before and during construction	Biologist			
MM BIO-1i (General Biological Measures)	The area below any vehicle or piece of equipment that has been stationary for 24 hours or greater will be examined prior to operation to ensure that no wildlife species is present.	Before and during construction	Construction Contractor, Biologist			
MM BIO-1j (General Biological Measures)	No pets or firearms will be permitted on site.	Before and during construction	Construction Contractor, Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-1k (General Biological Measures)	Any open holes or trenches that will be left exposed overnight will either be securely covered or have an escape ramp installed to prevent entrapment of any wildlife.	During construction	Construction Contractor, Biologist			
MM BIO-1l (General Biological Measures)	Any piping or casing left exposed overnight will be capped to prevent wildlife from entering.	During construction	Construction Contractor, Biologist			
MM BIO-2a (Special Status Amphibians)	No project activities will be conducted during or within 24 hours following a rain event in locations that have a potential for special status amphibians to occur or are near wetlands or other water features.	During construction	Construction Contractor, Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-2b (Special Status Amphibians)	In areas with the potential for special-status reptiles and amphibians to occur, prior to the onset of project activities at any Impact Area, a qualified biologist will conduct pre-construction surveys to determine whether any such species are present. A qualified biologist must, at a minimum, have experience conducting surveys to identify the California tiger salamander, California red-legged frog, western spadefoot, western pond turtle, and/or giant garter snake and their associated habitat.	Before and during construction	Biologist			
MM BIO-2c (Special Status Amphibians)	Any active rodent burrows or suitable cracks identified by a qualified biologist during the pre-construction survey will be flagged so that they can be avoided.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-2d (Special Status Amphibians)	Any burrows, cracks or fissures suitable for rodents that cannot be avoided and will be temporarily impacted by the movement and placement of equipment or other project activities will be covered with plywood to avoid burrow collapse.	Before and during construction	Biologist			
MM BIO-2e (Special Status Amphibians)	Leaf litter will be surveyed by the biologist for presence of wildlife prior to the onset of work, and if any special-status species are identified as using the leaf litter for refuge it will be avoided and a buffer will be established by a qualified biologist and flagged.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-2f (Special Status Amphibians)	If any special-status reptiles or amphibians are observed within the Impact Area, the on-site biologist will determine if the work can continue without harm to the individual(s). If the biologist determines that it is not safe to continue work, all work will cease until the animal has left the Impact Area. Once the individual(s) is determined by the on-site biologist to have left the Impact Area and is out of harm's way, work may resume.	Before and during construction	Biologist			
MM BIO-2g (Special Status Amphibians)	Piles of rock, rip-rap, or other materials that could provide refuge to reptiles or amphibians will be avoided. If movement of such materials cannot be avoided, a qualified biologist will survey the area prior to disturbance and monitor the material movement and restoration of the area following completion of Proposed Project activities.	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-3a (Western Pond Turtle)	In areas with the potential for western pond turtle to occur, pre-activity presence/absence surveys for western pond turtle shall occur within 48 hours prior to the onset of project activities at any Impact Area.	Before construction	Biologist			
MM BIO-3b (Western Pond Turtle)	If Western pond turtles are observed on land during the pre-activity surveys, the area within 328 feet (100 meters) of the boundary of the aquatic habitat will be flagged and avoided if feasible.	Before construction	Biologist			
MM BIO-3c (Western Pond Turtle)	If western pond turtles are observed within the Impact Area during a pre-activity survey or during project activities, they will be relocated outside of the Impact Area to appropriate aquatic habitat by a qualified biologist.	Before and during construction	Biologist			
MM BIO-4a (Giant Garter Snake)	Upland habitat within 200 feet (61 meters) of suitable aquatic habitat, that is suitable for giant garter snake (containing cracks or rodent burrows) will be flagged and avoided.	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-4b (Giant Garter Snake)	On-land soil investigations within suitable upland habitat for giant garter snake will be conducted during the snake's active season of May 1 through October 1.	During construction	Biologist			
MM BIO-5a (Rookery Birds)	A pre-activity survey for active rookeries will be conducted (during nesting season between February 1 – August 31) a maximum of 72 hours prior to the onset of soil investigation field activities. The qualified biologist(s) must, at a minimum, have experience conducting surveys to identify the specific rookery bird species and associated habitat that could occur on site.	Before construction	Biologist			
MM BIO-5b (Rookery Birds)	If any active rookeries are identified within or adjacent to an Impact Area, a buffer will be put in place to ensure that the birds are not disturbed during work activities. This buffer will be up to 50 feet (15 meters), but can be smaller, dependent on-site conditions and at the discretion of the qualified biologist.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-6a (Raptors; excluding Swainson's Hawk and Burrowing Owl)	For soil investigation field activities that will occur between February 1 – August 31, a pre-activity survey for actively nesting raptors will be conducted by a qualified biologist a maximum of 72 hours prior to the onset of project activities. The qualified biologist(s) must, at a minimum, have experience conducting surveys to identify the specific species and associated habitat that could occur on site.	Before construction	Biologist			
MM BIO-6b (Raptors; excluding Swainson's Hawk and Burrowing Owl)	If any active raptor nests are identified within or adjacent to an Impact Area by the pre-action survey, a buffer will be put in place to avoid disturbance to birds during and as a result of work activities. This buffer will be up to 250 feet (76 meters), but can be smaller, dependent on-site conditions and at the discretion of the qualified biologist.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-6c (Raptors; excluding Swainson's Hawk and Burrowing Owl)	Any identified actively nesting raptors will be monitored by a qualified biologist during activity activities for signs of distress or disturbance as a result of field activities. Should the birds show signs of distress, work will cease at that location until the birds have resumed normal behavior and it is determined by the on-site biologist that work can be resumed.	During construction	Biologist			
MM BIO-7a (Tricolored Blackbird)	For soil investigation field activities that will occur March 15-July 31 in areas with potential breeding habitat for Tricolored Blackbird, a pre-activity survey for breeding colonies will be conducted by a qualified biologist within 1,300 feet (396 meters) of Impact Areas a maximum of 72 hours prior to the onset of soil investigation activities. The qualified biologist(s) must, at a minimum, have experience conducting surveys to identify Tricolored Blackbird and associated habitat that could occur on site.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-7b (Tricolored Blackbird)	For soil investigation field activities that will occur August 1 – March 14 in areas with potential roosting habitat for Tricolored Blackbird, a pre-activity survey for roosting Tricolored Blackbirds will be conducted during the nonbreeding season within 300 feet (91 meters) of Impact Areas a maximum of 72 hours prior to the onset of soil investigation activities by a qualified biologist.	Before construction	Biologist			
MM BIO-7c (Tricolored Blackbird)	If active Tricolored Blackbird breeding colonies or roost sites are identified within or adjacent to an Impact Area, a buffer will be put in place to ensure that the birds are not disturbed during work activities. This buffer will be up to 1,300 feet (396 meters) but may be reduced to a minimum of 300 feet (91 meters), dependent on-site conditions and at the discretion of the qualified biologist.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-8a (Nesting Birds)	For soil investigation field activities that will occur February 1 – August 31, a pre-activity survey for actively nesting birds will be conducted a maximum of 72 hours prior to the onset of soil investigation activities by a qualified biologist. The qualified biologist(s) must, at a minimum, have experience conducting surveys to identify the specific species and associated habitat that could occur on site.	Before construction	Biologist			
MM BIO-8b (Nesting Birds)	If any active nests are identified within or adjacent to an Impact Area, a buffer will be put in place to ensure that no take (as defined by MBTA), and no take, possession, or needless destruction (as prohibited under the Fish and Game Code) occurs. This buffer will be up to 50 feet (15 meters), but can be smaller, dependent on-site conditions and at the discretion of the qualified biologist.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-9a (Sandhill Crane)	For soil investigation field activities that will occur September 15 through March 15, during roosting season, pre-activity surveys and an assessment of known roost sites will be conducted within 0.75 mile (1,207 meters) of Impact Areas by a qualified biologist.	Before construction	Biologist			
MM BIO-9b (Sandhill Crane)	If roost sites are identified within 0.25 mile (402 meters) of Impact Areas by the qualified biologist, start of large equipment use for soil investigation activities will be delayed to an hour after sunrise and stop an hour before sunset to minimize potential for noise disturbance at the roost site.	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-10a (Burrowing Owl)	In areas with the potential for Burrowing Owl to occur, prior to soil investigation field activities, a qualified biologist will conduct a pre-activity survey. The surveys will establish the presence or absence of Burrowing Owl and/or suitable habitat features and evaluate use by owls in accordance with CDFW survey guidelines (CDFW 1993). For each Impact Area, the biologist will survey the proposed disturbance footprint and a 500-foot (152 meter) radius from the perimeter of the proposed footprint to identify any suitable burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. Suitable burrows or Burrowing Owls will be identified and mapped.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-10a (Burrowing Owl) continued	Surveys will take place no more than 30 days prior to soil investigation field activities. During the breeding season (February 1– August 31), surveys will document whether Burrowing Owls are nesting in or directly adjacent to any Impact Area. During the nonbreeding season (September 1–January 31), surveys will document whether Burrowing Owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-10b (Burrowing Owl)	If Burrowing Owls are found during the breeding season (February 1 – August 31), all nest sites that could be disturbed by project activities will be avoided during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below in parts c and d).	During construction	Biologist			
MM BIO-10c (Burrowing Owl)	Soil investigation activities may occur during the breeding season only if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31) the owls and the burrows they are using will be avoided. Avoidance will include the establishment of a buffer zone (described below).	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-10d (Burrowing Owl)	During the breeding season, buffer zones of at least 250 feet (76 meters) in which no soil investigation activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet (49 meters) will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary fencing or flagging.	During construction	Biologist			
MM BIO-11a (Swainson's Hawk)	If soil investigations field activities will occur during the nesting season (March 15–September 15), a pre-activity survey will be conducted by a qualified biologist within 0.25 mile (402 meters) of Impact Areas following the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (SWHA Technical Advisory Committee 2000) between 5 days and 72 hours prior to the start of soil investigation activities to identify Swainson's Hawk nests.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-11b (Swainson's Hawk)	If active nests are observed within 0.25 mile (402 meter) of an Impact Area, project activities will be limited to outside of the breeding season (March 15 – September 15) or until the nest is determined to be inactive or fledged by a qualified biologist.	During construction	Biologist			
MM BIO-11c (Swainson's Hawk)	When soil investigation activities must occur within 0.25 mile (402 meters) of a known or potential nest during nesting season (March 15 – September 15), soil investigation field activities will be initiated prior to egg-laying, if possible. If soil investigation activities must begin after egg-laying, a 650-foot (198 meter) no-activity buffer will be established between an active nest and any soil investigation activities until eggs have hatched. If site-specific conditions or the nature of the project activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the qualified biologist will determine the appropriate buffer size.	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-11d (Swainson's Hawk)	If young fledge prior to September 15, soil investigation activities can proceed normally, subject to confirmation by a qualified biologist that the young have fledged from active nest sites. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the qualified biologist may determine that project activities can proceed.	During construction	Biologist			
MM BIO-11e (Swainson's Hawk)	A qualified biologist with stop-work authority will be present during soil investigation field activities and may halt project activities if the biologist determines that Swainson's Hawks in the vicinity of soil investigation activities are disturbed to the point where nest abandonment is likely. Additional protective measures, as determined by the qualified biologist, will be implemented prior to resuming soil investigation activities.	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-12a (Vernal Pool Species)	All ground disturbing activities (boring, CPT, or vegetation removal) shall be located at least 100 feet (30 meter) from a vernal pool to avoid impacts to sensitive vernal pool invertebrates.	Before and during construction	Biologist			
MM BIO-12b (Vernal Pool Species)	No project activities shall take place within an area identified as vernal pool complex, as determined by a qualified biologist, when wet soil conditions would increase the likelihood of vehicle traffic or other activities altering the site topography.	Before and during construction	Biologist			
MM BIO-13a (Valley Elderberry Longhorn Beetle)	When feasible, project activities shall be sited at least 164 feet (50 meters) from elderberry shrubs with stem diameter greater than 1-inch (2.5 centimeter).	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-13b (Valley Elderberry Longhorn Beetle)	If activities must be conducted within 164 feet (50 meters) of an elderberry shrub, the following measures will apply: i. activities will be conducted outside of VELB flight season (March 1-July 31); ii. a biological monitor will be present to monitor all project activities at the site; iii. all ground disturbing activities (boring, CPT, or vegetation removal) will be located at least 20 feet (6 meters) from the dripline of the elderberry shrub; and high visibility fencing, or flagging will be installed to delineate the 6-meter avoidance buffer.	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-14 (General Fish)	Over-water activities will be limited to only being conducted during the fish work window (August 1 – October 31) to avoid impacts to sensitive fish species that have the potential to occur in the Study Area.	During construction	Biologist			
MM BIO-15a (Special-Status Bats)	Pre-activity roosting special-status bat surveys and an evaluation of roosting habitat suitability for bats will be conducted by a qualified biologist familiar with the species that could potentially occur within the Impact Area. The qualified biologist should, at a minimum have experience conducting roosting bat surveys and be able to identify the presence of guano and urine stains.	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-15b (Special-Status Bats)	Any identified roosts of special-status bats will be avoided, and a buffer of up to 100 feet (30 meters) will be established based on-site conditions and at the discretion of the biologist, to ensure that the roosting bats are not disturbed. If a nursery colony is identified, additional measures may be required including a larger buffer, to ensure no disturbance. Such additional measures will be determined and monitored by a qualified biologist.	During construction	Biologist			
MM BIO-16a (American Badger)	A qualified biologist shall conduct pre-activity surveys for American badger and dens in suitable habitat within 48 hours prior to the start of soil investigation activities. If there is a lapse in soil investigation activities of two weeks or greater the area shall be resurveyed within 24 hours prior to recommencement of work. Potential American badger dens identified in the project area shall be monitored by the qualified biologist to determine current use.	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-16b (American Badger)	American badger dens determined by the qualified biologist to be occupied during the breeding season (February 15 through June 30) shall be flagged, and ground disturbing activities avoided, within 100 feet (30 meters) of the den to protect adults and nursing young. Buffers may be modified by the qualified biologist, depending on the applicable site conditions and characteristics of the den, and shall not be removed until the qualified biologist has determined that the den is no longer in use.	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-17a (San Joaquin Kit Fox)	Prior to any ground disturbance within an Impact Area, a qualified biologist will conduct a pre-activity survey in areas identified in the pre-activity surveys as supporting suitable breeding or denning habitat for San Joaquin kit fox. The surveys will establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (U.S. Fish and Wildlife Service 1999).	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-17b (San Joaquin Kit Fox)	Pre-activity surveys will be conducted within 30 days prior to ground disturbance. The biologist will survey the proposed Impact Area and a 250-foot (76 meter) buffer from the perimeter of the proposed Impact Area to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership, for which DWR not have access, will not be surveyed. The status of all dens will be determined and mapped. Written results of pre-activity surveys will be submitted to USFWS within 5 working days after survey completion and before the start of ground disturbance.	Before construction	Biologist			

MM BIO-17c (San Joaquin Kit Fox)	If San Joaquin kit foxes and/or suitable dens are identified within those areas included in the pre-activity survey area, the measures described below will be implemented. i. If a San Joaquin kit fox den is discovered in the Impact Area, the Impact Area will be moved at a minimum to meet the appropriate buffer distances as described below in subsection (c)(ii). ii. If dens are identified in the survey area but outside the Impact Area, exclusion zones around each den entrance or cluster of entrances will be demarcated. The configuration of exclusion zones should be circular, with a radius measured outward from the den entrance(s). No covered activities will occur within the exclusion zones. Exclusion zone radii for potential or atypical dens will be at least 50 feet (15 meters) and will be	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
	demarcated with four to five flagged stakes. Exclusion zone radii for known dens will be at least 100 feet (30 meters) and will be demarcated with staking and flagging that encircles					
MM BIO-17c (San Joaquin Kit Fox) continued	each den or cluster of dens but does not prevent access to the den by kit fox. iii. If a natal or pupping den is found within the Impact Area or within 200-feet (61 meters) of the Impact Area boundary, USFWS and CDFW will be notified immediately. The den will not be disturbed or destroyed, depending on the applicable site conditions and characteristics of the den, the soil investigation site may be moved.	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-18a (Botanical Resources)	All botanical evaluations will be conducted by a qualified botanist, who at a minimum shall have experience conducting floristic field surveys; knowledge of plant taxonomy and plant community ecology and classification; familiarity with the plants of the area, including special-status and locally significant plants; familiarity with the appropriate state and federal statutes related to plants and plant collecting; and experience with analyzing impacts of a project on native plants and communities.	Before and during construction	Biologist			

MM BIO-18b (Botanical Resources)	A qualified botanist will conduct a habitat assessment to determine whether the habitat is appropriate for special-status plants. If suitable habitat is present, the qualified botanist will conduct a habitat quality assessment to determine the potential for presence of sensitive plant species. The habitat quality assessment will consider factors such as soil type, degree and frequency of previous soil disturbance, abundance of invasive species, and distance from known sensitive plant occurrences. If a qualified botanist determines that special-status plants are likely to occur at a proposed Impact Area, a botanical survey will be conducted within the Impact Area at each soil investigation site. When feasible based on scheduling and property access, the surveys will be conducted at proper times of year when special-status and locally significant plants are both evident and identifiable; will be floristic in nature, ensuring that all plants observed are identified to a level sufficient for determining rarity, and will be conducted using	Before and during construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
	systematic field techniques in all habitats of the site to ensure thorough coverage of potential Impact Areas.					
MM BIO-18c (Botanical Resources)	Any special-status plant species present within 33 feet (10 meters) of an Impact Area will be flagged, or mapped using a GPS, for avoidance. A qualified botanist will establish an appropriate buffer. During field activities avoidance of the buffered area will be enforced by an environmental monitor to ensure that special-status plants are avoided to the maximum extent practicable.	Before and during construction	Biologist			

MM BIO-18d (Botanical Resources)	If special-status plant species (excluding listed species) are present within the Impact Area and impacts cannot practicably be avoided, a qualified botanist will evaluate the following criteria to ensure these impacts are less than significant: i. the total range and distribution of the species, ii. local population abundance iii. approximate number of individuals potentially impacted, iv. area of habitat potentially impacted, v. life history of the species (annual versus perennial and seedbank dynamics), vi. species sensitivity and response to disturbance, vii. species fecundity, and	Before construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
	viii. the probability of population recovery from impacts					
MM BIO-18d (Botanical Resources) continued	If loss of individuals due to project activities would exceed 2% of the local population or if the particular life history of the plant species indicates that a loss of that scale would threaten the persistence of the local population, or if there are fewer than 10 statewide extant occurrences, the soil investigation will not be allowed to proceed at that location.	Before construction	Biologist			
MM BIO-19 (Botanical Considerations for Vegetation Removal)	If access requires minor disturbances to or removal of vegetation, a qualified botanist will be consulted to ensure that no special-status vegetation is significantly impacted.	During construction	Biologist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM BIO-20 (Botanical Avoidance Zones)	Soil investigation activities will not be conducted within the intertidal zone of rivers or sloughs, including in-channel islands, or shoals to the extent feasible. If work in these areas is necessary, the Impact Area will be surveyed by a qualified botanist during tidal conditions that expose the intertidal area where Delta mudwort or Mason's lilaeopsis would occur. If Delta mudwort or Mason's lilaeopsis are identified, they will be flagged or mapped with a GPS for avoidance.	Before and during construction	Biologist			
MM CUL-1a	All Impact Area would be reviewed by a qualified archaeologist to evaluate the potential for impacts, if any, to cultural resources.	Before construction	Cultural Resource Specialist			
MM CUL-1b	Locations that have no previous survey coverage must be surveyed by, or under the direct supervision of a qualified archaeologist prior to the start of any ground disturbing activities.	Before construction	Cultural Resource Specialist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM CUL-1c	If the archaeologist observes cultural or potential tribal cultural resources within the Impact Area or associated resource buffer as identified by a qualified archaeologist, the location will be shifted the minimum distance necessary to reduce the potential for significant cultural resource impacts without significantly increasing potential impacts to other resources.	Before and during construction	Cultural Resource Specialist			
MM CUL-1d	A tribal representative from the consulting tribes will be invited to participate in the pre-activity field visits and archaeological surveys in Impact Areas specified as an area of interest/concern during consultation by that consulting tribe/tribes.	Before and during construction	DCA, Cultural Resource Specialist			
MM CUL-1e	Consulting tribes will be informed of any potential tribal cultural resources located within the study area specified as an area of interest/concern by a consulting tribe/tribes.	Before construction	Cultural Resource Specialist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM CUL-1f	If a suitable location cannot be determined within adjacent areas, then the soil investigation at that location would not be conducted.	Before construction	Cultural Resource Specialist			
MM CUL-2a	Should any unexpected cultural resources be exposed during project activities, all work would immediately stop in the immediate vicinity (e.g. 100 feet [30 meters]) of the find until it can be evaluated by a qualified archaeologist and an appropriate plan of action can be determined in consultation with the State Office of Historic Preservation, as necessary.	During construction	Cultural Resource Specialist			
MM CUL-2b	If the resource is associated with Native American contexts or is a potential Tribal Cultural Resource and is within a region specified as an area of interest/concern by a consulting tribe/tribes, the appropriate consulting tribal entity/entities will be contacted and consulted with to produce an appropriate plan of action.	During construction	Cultural Resource Specialist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM CUL-3	Should human remains be discovered during the course of project activities, all work would stop immediately in the vicinity (e.g. 100 feet [30 meters]) of the finds until they can be verified. The coroner would be contacted in accordance with Health and Safety Code section 7050.5(b). Protocol and requirements outlined in Health and Safety Code sections 7050.5(b) and 7050.5(c) as well as Public Resources Code section 5097.98 would be followed.	During construction	Cultural Resource Specialist			
MM CUL-4	Cultural sensitivity training will be provided for the environmental monitors and individuals conducting the field activities and geological analysis to ensure awareness about cultural resources, including identification of and proper protocol for handling any unexpected finds.	Before and during construction	Cultural Resource Specialist			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM GHG-1a	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.	Before construction	Construction Contractor, Engineer			
MM GHG-1b	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 [Title 13, section 2485 of the California Code of Regulations]). This requirement will be enforced by the environmental monitor.	During construction	Biologist, Construction Contractor, Engineer			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM GHG-1c	Maintain all soil investigation 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.	During construction	Construction Contractor, Engineer			
MM GHG-1d	Implement tire inflation program on jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation.	During construction	Construction Contractor			
MM GHG-1e	Encourage carpools or shuttle vans for worker commutes as feasible.	During construction	Construction Contractor, Engineer			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HAZ-1a	A Plan(s) (often a contractor's safety plan) with a section on Hazardous Materials shall be written and kept on site that describes the hazardous materials used during project activities, and how the materials will be properly stored, used, transported, and disposed of. The Plan will be shared with local fire and emergency personnel and their mutual aid districts. All hazardous materials shall be properly labeled and be recycled properly or disposed of at a properly licensed disposal facility.	Before and during construction	Construction Contractor			
MM HAZ-1b	The contractor shall contact the local fire agency and the local CUPA for any site-specific requirements regarding hazardous materials or hazardous waste containment or handling.	Before and during construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HAZ-1c	If hazardous materials, such as oil, batteries or paint cans, are encountered in the Impact Area, the contractor(s) shall carefully remove and dispose of them according to the Safety Plan and Spill Prevention and Response Plan. All hazardous materials will be disposed of at a properly licensed disposal facility.	Before and during construction	Construction Contractor			
MM HAZ-1d	Contact of chemicals with precipitation shall be minimized by storing chemicals in watertight containers or in a storage shed (completely enclosed), with appropriate secondary containment to prevent any spillage or leakage.	During construction	Construction Contractor			
MM HAZ-1e	Quantities of toxic materials, such as equipment fuels and lubricants, shall be stored with secondary containment that is capable of containing 110% of the primary container(s).	During construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HAZ-1f	Petroleum products, chemicals, fuels, lubricants, and non-storm drainage water or water contaminated with the aforementioned materials shall not contact soil and not be allowed to enter surface waters or the storm drainage system. All lubricants used downhole shall be non-petroleum based pursuant to common industry practice.	During construction	Construction Contractor			
MM HAZ-1g	All toxic materials, including waste disposal containers, shall be covered when they are not in use, and located as far away as possible from a direct connection to the storm drainage system or surface water.	During construction	Construction Contractor			
MM HAZ-1h	Sanitation facilities (e.g., portable toilets) shall be sited in a manner that avoids any direct connection to the storm drainage system or receiving water.	During construction	Construction Contractor			
MM HAZ-1i	Sanitation facilities shall be regularly cleaned and/or replaced and inspected daily for leaks and spills.	During construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HAZ-2	A Plan(s) (often a contractor's safety plan) with a section on Spill Prevention and Response Plan shall be developed by the Contractor and submitted to DWR before any ground-disturbing activities in order to prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water (including untreated wastewater) into channels the. The Plan will be shared with local fire and emergency personnel and their mutual aid districts. The following measures shall be included in the Plan: a. All field personnel shall be appropriately trained in spill prevention, hazardous material control, and cleanup of accidental spills.	Before construction	Construction Contractor			

MM HAZ-2 continued	b. Equipment and materials for cleanup of spills will be available on site and spills and leaks shall be cleaned up immediately and disposed of according to guidelines stated in the Spill Prevention and Response Plan. c. Field personnel shall ensure that hazardous materials are properly handled, and natural resources are protected by all reasonable means, including compliance with Code of Federal Regulations (CFR) containment measures for tanks containing hazardous materials (see 40 CFR Section 264.175). d. Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., at crew trucks and other logical locations). All field personnel shall be advised of these locations. e. Field personnel shall routinely inspect the work	Before construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
	site to verify that spill prevention and response measures are properly implemented and maintained.					

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HAZ-2 continued	f. Field personnel will routinely inspect the work site to verify that the Spill Prevention and Response Plan is properly implemented and maintained. Staff will notify contractors immediately if there is a noncompliance issue and will require immediate correction of any noncompliant behavior. g. Absorbent materials will be used on small spills located on impervious surface rather than hosing down the spill; wash waters shall not discharge to the storm drainage system or surface waters. For small spills on pervious surfaces such as soils, wet materials will be excavated and properly disposed rather than burying it. The absorbent materials will be collected and disposed of properly and promptly.	Before construction	Construction Contractor			

MM HAZ-2 continued	As defined in 40 CFR 110, a federal reportable spill of petroleum products is the spilled quantity that: a. Violates applicable water quality standards; b. Causes a film or sheen on, or discoloration of, the water surface or adjoining shoreline; or c. Causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines. h. If a spill is reportable, the contractor will notify the DWR staff, and the DWR staff will take action to contact the appropriate safety and cleanup crews to ensure that the Spill Prevention and Response Plan is followed. A written description of reportable releases must be submitted to the Regional Board and the California Department of Toxic Substances Control (DTSC).	Before construction	Construction Contractor			

MM HAZ-2 continued	This submittal must contain a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases will be documented on a spill report form. i. If a significant spill has occurred, and results determine that project activities have adversely affected surface water or groundwater quality, a detailed analysis will be performed to the specifications of DTSC to identify the likely cause of contamination. This analysis will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, the DWR or contractors will select and implement measures to control contamination, with	Before construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
	a performance standard that surface, and groundwater quality must be returned to baseline conditions.					
MM HAZ-2 continued	These measures will be subject to approval by the DWR, DTSC, and the Regional Board.	Before construction	Construction Contractor			
MM HAZ-3a	Stockpiling materials, portable equipment, vehicles, and supplies, including chemicals, will be restricted to areas adjacent to the drill or CPT rig, and not adjacent or within riparian and wetlands areas or other sensitive habitats	During construction	Construction Contractor			
MM HAZ-3b	Stockpiling materials, portable equipment, vehicles, and supplies, including chemicals, will be restricted to docks or within the drill barge or ship.	During construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HAZ-4a	The contractor would develop a fire protection and prevention plan which incorporates fire safety measures on all equipment with the potential to create a fire hazard.	Before construction	Construction Contractor			
MM HAZ-4b	The plan would ensure that fire suppression equipment is onsite and that all employees have received appropriate fire safety training.	Before construction	Construction Contractor			
MM HAZ-4c	The Plan will be shared with local fire and emergency personnel and their mutual aid districts.	Before construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HYD-1a	All fueling and maintenance of vehicles or other equipment for on-land soil investigation activities shall occur on established private access roads, or in designated staging areas at least 50 feet (15 meters) away from any on-site water feature. Fueling and maintenance activities will be conducted sufficiently away from public roadways to ensure safety of workers and the public. Secondary containment for fuel and gas tanks will be used to prevent spills from entering any water features.	During construction	Construction Contractor			
MM HYD-1b	Absorbent materials will be available on-site. Any accidental leaks or spills will be immediately cleaned up per the procedures identified in the contractors Spill Prevention and Response Plan, and the equipment will not be able to return to the project area until it has been repaired sufficiently to prevent further leaks or spills.	During construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HYD-1c	For overwater soil investigations positive barriers consisting of hay waddles and/or other suitable type of spill-stoppage materials will be placed around the work area on the barge and ship decks.	During construction	Construction Contractor			
MM HYD-1d	Discarded soil samples, cuttings, and excess drilling fluids will be kept in a closed system, to prevent spillage of the drilling fluid and will be disposed of off-site at an appropriate landfill.	During construction	Construction Contractor			
MM HYD-1e	All over-water work will include the use of conductor casings to confine the drill fluid and cuttings to the drill hole and the operating deck of the barge or drill ship and prevent any inadvertent spillage into the water. Soil samples will be collected from within the conductor casing. The casing will remain in place until the bore hole is complete and has been filled in, to minimize sediment disturbance of the slough or river bottom	During construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM HYD-1f	During overwater soil investigations a qualified environmental monitor will watch for colored plumes (an indication that drilling fluid or other material is entering the water and may affect water quality). If found, activities will cease until appropriate corrective measures have been completed or it has been determined that the environment will not be harmed.	During construction	Construction Contractor			
MM NOI-1	All equipment will be properly tuned and shall utilize appropriate mufflers.	Before and during construction	Construction Contractor			
MM PUB-1a	A Plan(s) (often Contractor's safety plan) with a section on Fire Protection and Prevention will be submitted to DWR for review and approval which incorporates fire safety measures on all equipment with the potential to create a fire hazard.	Before construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM PUB-1b	The contractor will prepare a Safety Plan in accordance with the DWR protocols.	Before construction	Construction Contractor			

MM TRANS-1a	Appropriate traffic controls will be implemented, based on the conditions at each soil investigation site, according to standards set by Caltrans and counties. Flaggers may be used during ingress and egress of boring equipment and work crews to allow flow of traffic while maintaining safety measures for the crew, especially if these activities occur in areas of heavy traffic or reduced visibility. Lane closures will be implemented when soil investigation sites are within or immediately adjacent to public roadways and will employ safety measures such as advance warning areas and flaggers, as prescribed by Caltrans and county regulations. Public notifications will be made in coordination with Caltrans, counties, CHP, and other entities. Traffic controls and lane closures will consider access for emergency services and be coordinated through the encroachment permit processes implemented by Caltrans and counties, with CHP coordination as required.	During construction	Construction Contractor			

Mitigation Measure Number	Mitigation Measure	Timing	Responsible Party	Completion Date	Verified by	Comments
MM TRANS-1b	Parking on public roads and thoroughfares by crew vehicles will be avoided to the maximum extent practicable to allow for the flow of traffic to continue.	During construction	Construction Contractor			
MM TRANS-1c	No public roads, waterways or land access will be closed.	During construction	Construction Contractor			
MM TRANS-1d	For overwater sites, the project area shall be a no-wake zone, with boats not exceeding 5 mph within 500 feet (152 meters) of the work area.	During construction	Construction Contractor			
MM UTI-1	A field reconnaissance, marking or staking the exploration site, and calling Underground Service Alert (USA) for utility clearance will be conducted by qualified personnel for each planned soil exploration location. Based upon the information gathered, sites will be adjusted to ensure no utilities are impacted.	Before construction	Construction Contractor			