

**MITIGATION MONITORING AND REPORTING PROGRAM
FOR THE
SECOND SAN DIEGO AQUEDUCT MOOSA CANYON CROSSING
EROSION CONTROL PROJECT (SCH No. 2017201019)
BONSALL, SAN DIEGO COUNTY, CALIFORNIA**

Prepared for:

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The California Environmental Quality Act (CEQA) requires that public agencies adopting a Mitigated Negative Declaration (MND) take affirmative steps to determine that approved mitigation measures and project design features are implemented subsequent to project approval. The lead or responsible agency must adopt a monitoring and reporting program for the mitigation measures incorporated into a project or included as conditions of approval. The program must be designed to ensure compliance with the MND during project implementation (Public Resources Code, Section 20181.6; CEQA Guidelines, Section 15074(d)).

This Mitigation Monitoring and Reporting Program (MMRP) will be used by the San Diego County Water Authority (Water Authority) to ensure compliance with adopted mitigation measures and project design features associated with the implementation of the proposed Second San Diego Aqueduct Moosa Canyon Crossing Erosion Control Project (project). The Water Authority, as Lead Agency pursuant to CEQA, will ensure that all design features and mitigation measures identified for the project are carried out in accordance with the adopted MMRP.

This MMRP consists of a checklist (Table 1) that identifies the project design features and mitigation measures, organized by environmental impact category discussed in the MND. The table identifies the mitigation monitoring and reporting requirements, including the timing of verification (prior to, during, or after construction) and the party responsible for implementing the measure. Space is provided for sign-off following completion/implementation of the design feature or mitigation measure. The responsible parties listed in Table 1 include the Water Authority, the Contractor who will be hired by the Water Authority to construct the project, and the Environmental Surveyor who will be assigned by the Water Authority to monitor compliance before and during project construction. These references in the table indicate the party responsible for implementing the respective measures, but the Water Authority will ultimately be responsible for verifying compliance with each measure listed in the table.

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**Table 1. Mitigation Monitoring and Reporting Program
Second San Diego Aqueduct Moosa Canyon Crossing Erosion Control Project, Bonsall, California**

Design Feature or Mitigation No.	Design Feature or Mitigation Measure	Timing of Verification			Responsible Party	Completed		Comments	Resp. Team Member	Spec Section or Dwg No.	Verified in Contract by	Comments
		Pre Const	During Const	Post Const		Initials	Date					
AESTHETICS / VISUAL QUALITY												
Design Feature 1	All areas cleared of vegetation for the temporary construction and staging areas will be revegetated at the completion of the project.			X	Contractor							
Design Feature 2	Any lighting used will be of the lowest illumination necessary to ensure safety of all construction personnel and security of the site, and will be shielded and directed away from adjacent habitat areas.		X		Contractor							
AIR QUALITY												
Design Feature 1	All clearing and grading will be carried out with dust control measures adequate to prevent creation of a nuisance to persons or property.		X		Contractor							
Design Feature 2	Points of public street access will be cleaned daily of any "track-out" materials.		X		Contractor							
Design Feature 3	All paved access roads, parking areas, and staging areas at construction sites will be swept daily.		X		Contractor							
Design Feature 4	All unpaved access roads, parking areas, and staging areas at construction sites will be watered three times daily or treated with non-toxic soil stabilizers.		X		Contractor							
Design Feature 5	Dirt storage piles will be stabilized by chemical binders, tarps, fencing, or other erosion control measures.		X		Contractor							
Design Feature 6	Soil stabilizers will be applied to inactive construction areas (disturbed areas inactive for 10 days or more).		X		Contractor							
Design Feature 7	Traffic speeds on unpaved roads will be limited to 20 miles per hour maximum.		X		Contractor							
Design Feature 8	All trucks hauling soil, sand, and other loose materials will be covered or required to maintain at least 2 feet of freeboard.		X		Contractor							
BIOLOGICAL RESOURCES												
Mitigation Measure BIO-1	If construction activities must commence during the riparian avian breeding season (March 15 through September 15), minimize impacts by conducting nest surveys within 300 feet of all proposed activities. If active nests are encountered, no Covered Activities shall be implemented within a minimum distance of 100 feet of the nest. A greater setback (up to 300 feet) may be required, as determined by the Environmental Surveyor, based on the site-specific considerations, phase of the nesting cycle, and species or other biological considerations.		X		Water Authority Environmental Surveyor							

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Mitigation Measure BIO-2	If construction activities must commence during the upland avian breeding season (February 15 through August 15), the Water Authority shall minimize impacts through conducting nest surveys within 300 feet of all proposed activities. If active nests are encountered, no Covered Activities shall be implemented within a minimum distance of 100 feet of the nest. A greater setback (up to 300 feet) may be required, as determined by the Environmental Surveyor, based on the site-specific considerations, phase of the nesting cycle, and species or other biological considerations.		X		Water Authority Environmental Surveyor							
Mitigation Measure BIO-3	The Water Authority shall prohibit direct take of coastal California gnatcatcher individuals and destruction of coastal California gnatcatcher nests within an active territory.		X		Water Authority Environmental Surveyor							
Mitigation Measure BIO-4	For temporary impacts to occupied coastal California gnatcatcher habitat, Water Authority shall ensure the work site will be returned to preexisting contours, where feasible, and revegetated with appropriate locally native species.			X	Contractor Water Authority Environmental Surveyor							
Mitigation Measure BIO-5	The Water Authority shall minimize and manage effects from introduced ant species that may exclude the termite prey base during restoration efforts. All nursery stock plants will be checked for nonnative ants before installation at restoration sites. Nonnative ants that penetrate native habitats appear to be partially supported by artificial irrigation associated with landscaping. Therefore, runoff from mitigation sites in to native habitat would be minimized and managed.			X	Contractor Water Authority Environmental Surveyor							
Mitigation Measure BIO-6	If a northern red diamond rattlesnake is observed in the construction area, the snake shall be moved by the Environmental Surveyor to the closest safe, suitable habitat in the area.		X		Environmental Surveyor							
Mitigation Measure BIO-7	The Water Authority shall acquire the appropriate types and amounts of off-site mitigation credits at Water Authority Habitat Management Areas, other Wildlife Agency-approved bank, or through the acquisition/protection of a qualifying habitat area that augments the NCCP/HCP Preserve Areas or reserves in another approved conservation plan. Based on impacts and mitigation assumptions available for this MND, off-site mitigation will include 1.137 acres of southern cottonwood willow riparian forest or ecologically equivalent Tier I habitat, 0.045 acre of southern willow scrub or ecologically equivalent Tier II	X	X	X	Water Authority							

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	habitat or greater ecological value, 0.112 acre of mulefat scrub or ecologically equivalent Tier II habitat, 0.005 acre of ecologically equivalent Tier III (riparian/wetlands) habitat or greater ecological value, and 0.001 acre of nonnative grassland or ecologically equivalent Tier III uplands habitat or greater ecological value. Mitigation amounts will be subject to discussion with the Army Corps and CDFW during the project's permitting process.											
NCCP/HCP General Condition 1	Conduct pre-activity surveys within suitable habitat to ensure that Covered Species are adequately addressed by impact avoidance, minimization, and mitigation. Surveys must be conducted by an Environmental Surveyor during the appropriate field conditions for detection prior to any proposed impacts in the Plan Area.	X			Environmental Surveyor							
NCCP/HCP General Condition 2	Avoid and minimize impacts to occupied Covered Species habitat or potential migration and/or dispersal corridors for all new facilities and O&M Activities of existing facilities through project design considerations.	X			Water Authority							
NCCP/HCP General Condition 3	Fence and/or flag Covered Species populations and sensitive habitat in or adjacent to work areas. Where necessary, install signage to prohibit access and/or flag areas being restored or protected for their biological value.	X			Water Authority Environmental Surveyor							
NCCP/HCP General Condition 4	Avoid driving or parking on sensitive and/or occupied habitat by keeping vehicles on roads and in designated staging areas.		X		Contractor Environmental Surveyor							
NCCP/HCP General Condition 5	Deter unauthorized activities (such as trampling and off-road vehicle use) and perform litter abatement, including proper disposal of illegally dumped materials, as part of routine patrol of access roads.		X		Contractor Environmental Surveyor							
NCCP/HCP General Condition 6	Monitor encroachment of non-native and invasive species into Covered Species populations and perform weed abatement as needed to improve the habitat.		X		Environmental Surveyor							
NCCP/HCP General Condition 7	Stabilize work areas to control erosion or sedimentation problems when working near Covered Species populations within the Plan Area. Populations within or adjacent to work areas would be protected from vehicular traffic, excessive foot traffic, or other activities that result in soil surface disturbance.	X	X		Contractor							
NCCP/HCP General Condition 8	Control dust when working near Covered Species populations and/or habitat in accordance with applicable regulations.		X		Contractor Environmental Surveyor							
NCCP/HCP General Condition 9	All identified populations of Covered Species within rights-of-ways must be managed to control edge effects to the maximum extent possible.		X		Environmental Surveyor							

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NCCP/HCP General Condition 10	Any restoration and monitoring program prepared as a component of the mitigation plan for impacts to a Covered Species shall include, but not be limited to, species propagation ratios, restoration site selection and assessment, site preparation, implementation strategies, weed control procedures, required management and monitoring in perpetuity, funding commitment, and reporting procedures. The program would be prepared in advance of project impacts and approved by the Wildlife Agencies.			X	Water Authority							
NCCP/HCP General Condition 11	Any planting stock used shall be inspected by an Environmental Surveyor to ensure that it is free of pest species that may invade natural areas, including, but not limited to, Argentine ants (<i>Iridomyrmex humii</i>), fire ants (<i>Solenopsis invicta</i>), and other pests. Any planting stock that is infested would not be allowed within restoration areas or within 300 feet of native areas unless documentation is provided to the Wildlife Agencies that these pests already occur in the native areas around the project site. The stock would be quarantined, treated, or disposed of according to best management principles by qualified experts in a manner that precludes invasions into native habitat. Runoff from mitigation sites in native habitat would be minimized and managed.		X	X	Contractor Environmental Surveyor							
NCCP/HCP General Condition 12	To the maximum extent possible, conduct Covered Activities occurring within wetland habitats during the dry season when flows are at their lowest or nonexistent to minimize impacts to aquatic species and/or habitats.		X		Contractor Environmental Surveyor							
NCCP/HCP General Condition 13	Reseed temporary impact areas with an appropriate native seed mix and allow for natural recolonization of the area by adjacent populations.			X	Contractor							
NCCP/HCP General Condition 14	For new facilities adjacent to native habitat, minimize ornamental landscaping or irrigation not associated with native habitat restoration.	X		X	Water Authority Contractor							
NCCP/HCP General Condition 15	Collection of covered plant and wildlife species by Water Authority personnel and contractors is prohibited.		X		Water Authority Contractor Environmental Surveyor							
NCCP/HCP General Condition 16	Maintain and manage dispersal/movement corridors within the Plan Area that contribute to long-term population viability.	X			Water Authority							

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NCCP/HCP General Condition 17	The use of outdoor lighting within or adjacent to potential Covered Species habitat will be discouraged. If lighting must be used for reasons of safety and security, light sources would be shielded away from habitat and only low pressure sodium lighting would be used.		X		Contractor Environmental Surveyor							
NCCP/HCP Minimization Measure 1	The Water Authority will identify an Environmental Surveyor for the project to oversee pre-project evaluations/needs of Covered Activities and work with the project engineer and contractors to ensure implementation compliance of Covered Activities with Plan commitments.	X			Water Authority							
NCCP/HCP Minimization Measure 2	If the Environmental Surveyor discovers that the Water Authority is out of compliance with the permits associated with this Plan [NCCP/HCP], he/she will report the non-compliance to the Water Authority within one working day and to the Wildlife Agencies within five working days so that the Water Authority and Wildlife Agencies can determine how to put the Plan back into compliance.		X		Environmental Surveyor							
NCCP/HCP Minimization Measure 3	Before any clearing and/or construction activities are performed in habitat areas that may support Covered Species, the Environmental Surveyor will review the site, identify any sensitive plant and animal species, and identify requirements pursuant to the Plan [NCCP/HCP] for impact avoidance and minimization that are not already adequately addressed in the project specific MMRP. A standard Pre-Activity Survey Form (PSF) will be prepared for each project and submitted to the Water Authority for review and tracking purposes.	X			Environmental Surveyor							
NCCP/HCP Minimization Measure 4	The Environmental Surveyor will determine the extent of potential Covered Species habitat and will flag the sensitive resources to be avoided. If a Covered Species is present, the Environmental Surveyor will refer to Appendix B of the NCCP/HCP for species-specific conservation measures. In the case of unavoidable impacts to a Covered Species, the Environmental Surveyor will determine the extent of impact, the appropriate mitigation measures, and recommend to the project engineer additional measures to minimize impacts in accordance with Appendix B of the NCCP/HCP.	X			Environmental Surveyor							
NCCP/HCP Minimization Measure 5	The Environmental Surveyor will work with the project engineer to identify and mark areas appropriate for staging and temporary equipment storage, placement of heavy machinery, as well as vehicle turn around and access, that will result in the least amount of impact to sensitive vegetation and/or Covered Species. The Environmental Surveyor will verify that all areas specified on the plans to be avoided are marked with flagging in the field prior to construction start.	X			Environmental Surveyor Water Authority							

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NCCP/HCP Minimization Measure 6	The Environmental Surveyor will attend pre-construction meetings for projects in sensitive areas. The Environmental Surveyor will provide brief presentations to field staff (includes construction contractors), as needed, to familiarize field personnel with the natural resources to be protected and avoid on project sites and outline environmental expectations. The Environmental Surveyor will also be available to answer questions and address any last-minute construction changes.	X			Environmental Surveyor							
NCCP/HCP Minimization Measure 7	The Environmental Surveyor will be present during clearing, topsoil salvage, and construction activities located within sensitive habitat. The frequency and duration of required monitoring will be specified in the PSF that is completed by the Environmental Surveyor and submitted to the Water Authority on a project-by-project basis prior to the start of construction.		X		Environmental Surveyor							
NCCP/HCP Minimization Measure 8	The Environmental Surveyor will advise the construction manager during construction to ensure compliance with all avoidance, minimization, and mitigation measures.		X		Environmental Surveyor							
NCCP/HCP Minimization Measure 9	The Environmental Surveyor will conduct (and document) monitoring as required by the PSF. At the completion of the Covered Activity, the Environmental Surveyor will prepare a brief report to verify compliance with the avoidance and minimization recommendations in the PSF or Project MMRP. This report will include documentation that the flagged areas were avoided and that minimization measures were properly implemented. The Environmental Surveyor will be responsible for the identification and monitoring of any Covered Species that are found on the project site prior to and during construction activities. Monitoring activities will be in accordance with the species-specific measures (see Appendix B of the NCCP/HCP).	X			Environmental Surveyor							
NCCP/HCP Minimization Measure 10	If any previously unidentified Covered Species or otherwise sensitive species, nests, dens, or burrows are located on a project site during construction activities, the Environmental Surveyor will provide guidance, through the construction manager, as to how best to minimize or avoid impacting the resource(s).		X		Environmental Surveyor							
NCCP/HCP Minimization Measure 11	The Environmental Surveyor will be on-call (via phone) to respond within 24 hours for potential emergency deployment to assess and monitor potentially critical biological issues.		X		Environmental Surveyor							
NCCP/HCP Minimization Measure 12	If the Environmental Surveyor determines that the Covered Activity is out of compliance with the requirements of the Plan, the Environmental Surveyor will report it to the Water Authority. The Water Authority will be responsible for bringing the project back into compliance and determine the appropriate remedial action, if necessary, through		X		Environmental Surveyor Water Authority							

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	coordination with the Wildlife Agencies.											
NCCP/HCP Minimization Measure 13	The Environmental Surveyor or construction manager will be responsible for ensuring the removal of all habitat flagging from the construction site at completion of work.			X	Contractor Environmental Surveyor							
NCCP/HCP Minimization Measure 14	If included in the PSF, the Environmental Surveyor will direct the relocation of Covered Species that can be moved from harm's way in coordination with the species-specific Conditions of Coverage in Appendix B of the NCCP/HCP (in non-emergency situations) with notification to the Wildlife Agencies.		X		Environmental Surveyor							
NCCP/HCP Minimization Measure 15	The PSF will include a review of the avoidance, minimization, and mitigation requirements stated in this MMRP and will confirm the measures are still applicable and, if necessary, identify additional requirements based on the general measures outlined in this section and the species-specific conditions in Appendix B of the NCCP/HCP.	X			Water Authority Environmental Surveyor							
NCCP/HCP Minimization Measure 16	The pre-activity survey will be valid for 30 days unless the project is scheduled to begin during the avian breeding season, in which case the nesting bird clearance must be conducted within five days of project implementation. If ground disturbance activities have not commenced within 30 days after the survey is completed, the Environmental Surveyor will conduct a verification survey to confirm that biological conditions have not significantly changed that would alter the specified avoidance, minimization and mitigation commitments prior to construction.	X			Environmental Surveyor							
NCCP/HCP Minimization Measure 17	Field personnel working within sensitive habitat areas, including both Water Authority employees and contractors, will participate in an education training program at the start of each project. The program will be conducted on-site by an Environmental Surveyor under the direction of the Water Authority. The training will include: an overview of Covered Species identification and the legal protections afforded to each species; a brief discussion of their biology; habitat requirements; status under ESA and CESA; conservation measures being taken by the project for the protection of the Covered Species and their habitats under this Plan; and penalties for non-compliance. The training program will also educate field personnel in the identification of invasive exotic species that may be removed, as well as desirable seeded and planted species, to ensure that native species are not affected by invasive species control. A fact sheet conveying this information will also be available to all personnel working in the project area. The Water Authority, either directly or through the services of the Environmental Surveyor, will be	X			Water Authority Contractor Environmental Surveyor							

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	responsible for the education and training for new field personnel coming on-site after the start of a project.											
NCCP/HCP Minimization Measure 18	Contractors or other project personnel will not collect plants or wildlife, unless specifically authorized and directed by the Environmental Surveyor. Only qualified and appropriately authorized personnel will handle or collect plants or wildlife as required by species-specific measures.		X		Contractor							
NCCP/HCP Minimization Measure 19	Field personnel will not intentionally harm or harass wildlife or damage nests, burrows, rock outcrops, or other habitat components.		X		Contractor							
NCCP/HCP Minimization Measure 20	Drivers on unpaved roads in native habitats will not exceed a speed of 20 miles per hour in order to avoid injury to animals and minimize dust generation.		X		Contractor							
NCCP/HCP Minimization Measure 21	Impacts to adjacent native vegetation that would be significantly affected by excessive fugitive dust will be avoided and minimized through watering of access roads (except in areas with vernal pools) or other appropriate measures, such as reducing the number or speed of vehicles or adding inert materials that reduce dust.		X		Contractor							
NCCP/HCP Minimization Measure 22	Vehicles will not park in areas where catalytic converters may ignite vegetation. Construction vehicles will be equipped with shovels and fire extinguishers in order to reduce the risk of wildfires.		X		Contractor							
NCCP/HCP Minimization Measure 23	Littering will be strictly prohibited. All trash will be deposited in secured, closed containers or hauled out daily by field personnel.		X		Contractor							
NCCP/HCP Minimization Measure 24	No pets will be allowed on any construction site.		X		Contractor							
NCCP/HCP Minimization Measure 25	No firearms or other weapons will be allowed on any construction site except as carried by governmental law enforcement, or as authorized in writing by Water Authority staff.		X		Contractor							
NCCP/HCP Minimization Measure 26	Field personnel will be prohibited from pushing or dumping soil and brush into sensitive habitats.		X		Contractor							
NCCP/HCP Minimization Measure 27	All vehicles, tools, and machinery will be restricted to access roads, approved staging areas, or within designated construction zones.		X		Contractor							
NCCP/HCP Minimization Measure 28	If any field personnel identify a previously unnoticed Covered Species on a construction site, work activities will cease in order to immediately notify the Water Authority's construction manager, project engineer, and the Environmental Surveyor. In conjunction with Water Authority environmental staff, the Environmental Surveyor will determine what actions would be taken to avoid or		X		Contractor Environmental Surveyor							

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	minimize impacts to the species according to the species-specific conditions outlined in Appendix B of the NCCP/HCP.											
NCCP/HCP Minimization Measure 29	Field personnel will notify the project engineer/Environmental Surveyor of any sick, injured, or dead wildlife found on site.		X		Contractor							
NCCP/HCP Minimization Measure 30	Parking or driving underneath oak trees, except in established traffic areas, will not be allowed in order to protect root structures.		X		Contractor							
NCCP/HCP Minimization Measure 31	Construction footprints will be delineated in the construction documents. In addition, if the construction footprint is located within or near sensitive habitat, the project footprint will be fenced or continuously flagged with streamers or a boundary rope barrier to ensure that habitat is not removed beyond the limits of work. These barriers will be established prior to any grading, grubbing, or clearing, and will be monitored by the Environmental Surveyor.	X			Water Authority Contractor Environmental Surveyor							
NCCP/HCP Minimization Measure 32	Prior to the start of ground disturbing activities, the Water Authority or their consultants will prepare a Storm Water Pollution Prevention Plan (SWPPP), or an equivalent document, to reduce or eliminate pollutants during and after construction. The most current and applicable Best Management Practices (BMPs) will be implemented at all construction sites in or adjacent to native habitat in accordance with the project specifications. In addition to the approved manual, BMPs listed in the most recent National Pollutant Discharge Elimination System (NPDES) General Permit and the BMP Fact Sheet located in State Water Resources Control Board (SWRCB) General Permit for Small Linear Underground/Overhead Projects will apply. The fact sheet is attached as an Appendix G and the SWRCB or RWQCB will be contacted for the latest requirements.	X			Water Authority Contractor							
NCCP/HCP Minimization Measure 33	Refuse and trash will be regularly removed from activity sites and disposed of in a lawful manner. Timing of refuse and trash removal will be determined by the Environmental Surveyor and comply with the project specifications that require debris to be removed as work is completed. Petroleum products, including gasoline, diesel, and hydraulic fluid, will be used during construction in accordance with all federal, state, and local laws, regulations, and permitting requirements. In the event that hazardous materials are encountered or generated during construction, contractors certified by the responsible regulatory agency will conduct all recovery operations and dispose of hazardous waste in accordance with existing regulations and required permits. As required, petroleum products, trash, and other materials will		X		Contractor Environmental Surveyor							

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	be taken to a disposal facility authorized to accept such materials.											
NCCP/HCP Adjacency Guideline 1	Prepare site-specific fire management plans. Include local fire department contacts and guidelines for pre-fire prevention activities, fire suppression, and post-fire restoration.	X			Contractor							
NCCP/HCP Adjacency Guideline 2	Dispose of all exotic plant materials (specifically castorbean [<i>Ricinus communis</i>], tree tobacco [<i>Nicotiana glauca</i>], and other species as determined by the Water Authority/Environmental Survey) that are removed from the project site at a landfill or on-site at a secure, designated location to avoid the spread of nonnative plant species through seeds or propagules. If exotic vegetation is processed on site, it shall be chipped and staged in a designated mulch site, and all exotic plant material compost piles will be periodically spot-treated with herbicide to kill any resprouting plants. All exotic plant materials will be covered during transport. Exotic plant material will be removed off-site to a green waste recycling facility, or otherwise legally disposed of, as necessary.		X		Contractor Environmental Surveyor							
NCCP/HCP Adjacency Guideline 3	Ensure that all ornamental landscaping and native habitat restoration materials do not contain invasive ant or other species by inspecting all container stock before it enters Preserve Areas.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 1	California Department Fish and Wildlife employees are authorized to conduct on-site inspections relevant to San Diego County Water Authority NCCP/HCP Section 6.6.1.1, upon reasonable notice.		X		Water Authority							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 2	Silty/turbid water shall not be discharged into the stream. Such water shall be settled, filtered, or otherwise treated prior to discharge. The Contractor's ability to minimize turbidity/siltation shall be the subject of pre-construction planning and design feature implementation.	X			Contractor Water Authority							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 3	Preparation shall be made so that runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential. Frequent water checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 4	Water containing mud, silt, or other pollutants from equipment washing or other activities shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.		X		Contractor							
NCCP/HCP Appendix I:	Silt settling basins shall be located away from the stream or lake to prevent discolored, silt-bearing water from reaching		X		Contractor							

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Lake, Stream, and River Work Condition 5	the stream or lake during any flow regime.											
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 6	Notwithstanding the use of silt catchment basins, upon California Department Fish and Wildlife (Department) determination that turbidity/siltation levels resulting from project related activities constitute a significant threat to aquatic life, activities associated with the turbidity/siltation, shall be halted until effective Department approved control devices are installed or abatement procedures are initiated.		X		Contractor Water Authority							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 7	Precautions to minimize turbidity/siltation shall be taken into account during project planning and shall be installed prior to construction. This may require that the work site be isolated and that water be diverted around the work area by means of a barrier, temporary culvert, new channel, or other means approved by California Department Fish and Wildlife (Department). Precautions may also include placement of silt fencing, straw bales, sand bags, and/or the construction of silt catchment basins so that silt or other deleterious materials are not allowed to pass to downstream reaches. The method used to prevent siltation shall be monitored and cleaned/repared weekly, or more frequently if warranted by local conditions. Department shall provide any determinations or approvals in writing within 14 days of receiving from the Water Authority or its agents a written request which includes a plan sheet or diagram indicating how the work site will be isolated.	X			Water Authority Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 8	No equipment shall be operated in ponded or flowing areas except as otherwise addressed in Water Authority project's Notification of Lake or Streambed Alteration application, contract specifications, and any applicable regulatory permits.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 9	Rock, gravel, and/or other materials shall not be imported to, taken from, or moved within the bed or banks of the stream except as otherwise specifically identified in the project's Notification of Lake or Streambed Alteration application.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 10	Temporary fills shall be constructed of nonerodible materials and shall be removed immediately upon work completion.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 11	If operations require moving equipment across a flowing stream, such operations shall be conducted without substantially increasing stream turbidity. Where repeated crossings could result in a substantial increase in stream turbidity, the Water Authority shall install a permanent or		X		Contractor							

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	temporary bridge, culvert, or rock-fill crossing as approved by the Water Authority Project Engineer.											
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 12	Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 13	Spoil sites shall not be located within a stream/lake, or where spoil shall be washed back into a stream/lake, or where it will cover aquatic or riparian vegetation, unless the site is specifically identified in the project's Notification of Lake or Streambed Alteration application.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 14	Staging/storage areas for equipment and materials shall be located outside of the stream, unless the area is specifically identified in the project's Notification of Lake or Streambed Alteration application.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 15	Access to the work site shall be via existing roads and access ramps when legally available to the Water Authority and its contractors for such use.		X		Water Authority Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 16	No equipment maintenance shall be done within or near any stream channel where petroleum products or other pollutants from the equipment may enter these areas under any flow.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 17	No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 18	The Water Authority and its contractors, subcontractors, and employees shall comply with all litter and pollution laws. It is the responsibility of the Water Authority to ensure compliance.		X		Contractor Water Authority							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 19	Any equipment or vehicles driven and/or operated within or adjacent to the stream/lake shall be checked and maintained daily to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.		X		Contractor							

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NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 20	Stationary equipment such as motors, pumps, generators, and welders located within or adjacent to the stream/lake shall be positioned over drip pans or confined within berms capable of containing any spills.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 21	The clean-up of all spills shall begin immediately. California Department Fish and Wildlife shall be notified immediately by the Water Authority of any spills that affect aquatic habitat, and shall be consulted regarding clean-up procedures.		X		Contractor Water Authority							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 22	Any materials placed in seasonally dry portions of a stream or lake that could be washed downstream or could be deleterious to aquatic life shall be removed from the project site prior to inundation by high flows.		X		Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 23	Installation of bridges, culverts, or other structures shall be such that water flow is not impaired. Bottoms of temporary culverts shall be placed at or below stream channel grade, and bottoms of permanent culverts shall be placed below stream channel grade. Excavation of the streambed and banks shall be limited to the extent necessary, as determined by the Water Authority Project Engineer, to install bottoms of culverts below stream grade. Temporary culverts placed on existing streambed grade shall be done so with minimal disturbance.		X		Water Authority Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 24	All in-stream structures shall be designed so that no sudden change in stream velocity shall occur above, below, or in the structure. If a sudden change in stream velocities occurs upon installation of the structure, the structure shall be removed immediately.	X			Water Authority Contractor							
NCCP/HCP Appendix I: Lake, Stream, and River Work Condition 25	If any wildlife is encountered in the stream or lake zone during the course of construction, said wildlife shall be allowed to leave the construction area unharmed.		X		Contractor							
PMPP Condition 1	The Water Authority and Contractor must allow representatives from U.S. Army Corps of Engineer to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of permit No. SPL-2012-00106-PJB.		X		Water Authority Contractor							
PMPP Condition 2	The Water Authority and Contractor shall follow, adhere to and implement authorized eligible activities as described in the Department of Army permit.		X		Water Authority Contractor							
PMPP Condition 3	Prior to initiating construction in waters of the U.S., including wetlands, the Water Authority shall submit to the Corps Regulatory Division a complete set of final detailed	X			Water Authority							

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	grading/construction plans showing all work and structures in waters of the U.S., including wetlands for a proposed eligible activity. All plans shall be submitted on paper no larger than 11x17 inches. No work in waters of the U.S., including wetlands is authorized until the Corps Regulatory Division receives and approves (via email or letter) the final detailed grading/construction plans.											
PMPP Condition 4	The Water Authority shall ensure that the project is built in accordance with the final detailed grading/construction plans submitted to and approved by the Corps Regulatory Division. Adverse impacts to waters of the U.S., including wetlands beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil or criminal penalties, and/or substantial, additional, compensatory mitigation requirements		X		Water Authority							
PMPP Condition 5	The Contractor shall clearly mark the limits of the workspace with plastic snow fencing, silt fencing, or flagging to ensure mechanized equipment does not enter waters of the U.S., including wetlands beyond the Corps-approved construction footprint as shown on plans, maps, drawings or figures submitted to the Corps Regulatory Division for each eligible activity.	X	X		Contractor							
PMPP Condition 6	The Water Authority shall staff one or more qualified biologists/environmental monitors on site during project activities in the waters of the U.S., including wetlands to ensure compliance with all requirements of this permit and ensure that adverse impacts do not occur outside of the permitted project area.		X		Water Authority							
PMPP Condition 7	The Water Authority shall report any non-compliance incident with the permit to the Corps Regulatory Division (760-602-4829) within one day of its occurrence. The Permittee/qualified biological/environmental monitor shall submit a written report summarizing the noncompliance with the permit and any measures implemented to rectify the incident to the Corps Regulatory Division within seven days of notification to the Corps Regulatory Office.		X		Water Authority Environmental Surveyor							
PMPP Condition 8	Temporary stockpiling is not authorized within waters of the U.S., including wetlands.		X		Contractor							
PMPP Condition 9	The Water Authority shall ensure that all vehicle maintenance, staging, storage, laydown areas and dispensing of fuel occurs outside of Corps jurisdiction as per Corps approved project site plans. The Permittee shall ensure that these designated areas are located in such a manner as to		X		Water Authority Environmental Surveyor							

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	prevent any runoff from entering waters of the U.S., including wetlands and special aquatic sites.											
PMPP Condition 10	During construction, the Contractor shall isolate authorized work activities from flowing stream segments using temporary cofferdams and restore the work area to pre-project conditions after work is complete as per Corp approved site plans. Temporary cofferdams shall be constructed of materials that shall not introduce sediment to the stream channel and shall be completely removed following completion of the work activity.		X		Contractor							
PMPP Condition 11	The Contractor shall discharge only clean construction materials permitted for use in waters of the U.S., including wetlands. The Contractor shall ensure no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the U.S., including wetlands. Upon completion of the eligible activity authorized herein, any and all excess material or debris shall be completely removed from the waters of the U.S., including wetlands.		X		Contractor							
PMPP Condition 12	Upon completion of work activities, the Contractor shall remove all excess excavated material from waters of the U.S., including wetlands to an upland storage site designated on project plans outside of the 100-year floodplain or an otherwise Corps-approved upland disposal site.			X	Contractor							
CULTURAL RESOURCES												
Design Feature 1	In the event that buried cultural resources are encountered during any phase of construction, project activities in the vicinity of the resources will be temporarily halted, and the Water Authority will consult a qualified archaeologist to assess the significance of the resource and to provide proper management recommendations.		X		Water Authority Environmental Surveyor							
Design Feature 2	In the event of an unexpected discovery of human remains during any phase of construction, project activities in the vicinity of the discovery will be temporarily halted and the San Diego County Coroner contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendent, as identified by the Native American Heritage Commission, will be contacted to determine proper treatment and disposition of the remains.		X		Environmental Surveyor							
PMPP Condition 1	If the Water Authority or its Contractor discovers any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, the Water Authority must immediately notify the Army Corps' Carlsbad field office of what the Water Authority or its		X		Water Authority Contractor							

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	Contractor have found. The Army Corps will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.											
GEOLOGY AND SOILS												
Design Feature 1	<p>Project construction activities will comply with applicable requirements stated in the State Water Resources Control Board Construction General Permit. The Water Authority will implement a Storm Water Pollution Prevention Plan (SWPPP) (including associated sedimentation BMPs) for the construction activities that are specific for project type, location, and characteristics. Typical control measures that may be implemented as part of the project SWPPP include:</p> <p>a) Preparation and implementation of a “weather triggered” action plan during the rainy season to provide enhanced erosion or sediment control measures prior to predicted storm events (i.e., 40% or greater chance of rain).</p> <p>b) Use of erosion control/stabilizing measures in appropriate areas (including disturbed areas and graded slopes with grades of 3:1 [horizontal to vertical] or steeper), such as geotextiles, mats, fiber rolls, soil binders, or temporary hydroseeding.</p> <p>c) Use of sediment controls to protect the site perimeter and prevent off-site sediment transport, including measures such as silt fences, fiber rolls, gravel bags, temporary sediment basins, check dams, street sweeping, energy dissipaters, stabilizing construction access points (e.g., with temporary gravel or pavement) and sediment stockpiles (e.g., with silt fences and tarps), and use of properly fitted covers for sediment transport vehicles.</p> <p>d) Storage of BMP materials in applicable on-site areas to provide “standby” capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.</p> <p>e) Provision of training by certified personnel (i.e., either a Qualified SWPPP Developer [QSD] or Qualified SWPPP Practitioner [QSP]) for the personnel responsible for BMP installation and maintenance.</p> <p>f) Implementation of permanent native vegetation</p>	X	X		Contractor							

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	restoration/planting as soon as feasible after grading or construction. g) Implementation of appropriate monitoring and maintenance efforts (e.g., prior to and after storm events) to ensure proper BMP function and efficiency. h) Implementation of sampling/analysis, monitoring/reporting, and post-construction management programs per NPDES requirements. i) Implementation of additional BMPs as necessary (and required by appropriate regulatory agencies) to ensure adequate erosion and sediment control.											
Design Feature 2	Actual BMPs for the proposed project will be determined during the SWPPP development process, with such measures taking priority over the typical industry standard measures listed above.	X	X		Contractor							
HAZARDS AND HAZARDOUS MATERIALS												
Design Feature 1	Standard BMPs will be implemented to prevent impacts to the public through the transport, use, or disposal of any hazardous materials. Standard industry measures include, but are not limited to: a) Hazardous materials used or stored on-site will be restricted to areas at least 50 feet from storm drains and watercourses. b) All hazardous materials will be covered or kept in enclosed facilities. c) A written inventory will be kept of all hazardous materials used or stored on-site. d) To prevent discharge in the event of a spill, berms, ditches, and/or impervious liners (or other applicable methods) will be provided in material storage and vehicle/equipment storage areas to provide a containment volume of 1.5 times the volume of the stored/used materials. e) Agency telephone numbers and a summary guide of cleanup procedures will be posted in a conspicuous location at or near the job site staging area.		X		Contractor							

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Design Feature 2	Prior to authorization to proceed, the Water Authority's contractor will prepare a Fire Prevention and Response Plan. All construction crewmembers will be trained in the requirements of the plan. Fire safety information will be disseminated to construction crews during regular project safety meetings. Fire management techniques will be applied during project construction as deemed necessary and depending on the on-site vegetation and the vegetation of surrounding areas.		X		Contractor							
HYDROLOGY / WATER QUALITY												
Design Feature 1	A SWPPP will be implemented to effectively reduce or eliminate pollutants during construction of the proposed project. The SWPPP will identify all pollutant sources, including sources of sediment, that may affect the quality of storm water discharges associated with construction activity (storm water discharges from the construction site); identify non-storm water discharges; identify structural and/or treatment control BMPs that are to be implemented in accordance with a time schedule to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction; and develop a maintenance schedule for permanent or post-construction BMPs that will "to the maximum extent possible" reduce or eliminate pollutants after construction is completed. Detailed BMPs to prevent impacts to water quality will be included in the SWPPP.	X	X		Contractor							
NOISE												
Design Feature 1	The contractor will comply with the noise thresholds the Water Authority has established for this project. Noise levels associated with construction activities are not to exceed an average sound level of 75 decibels over an 8-hour period, between 7 a.m. and 7 p.m., Monday through Saturday, as measured at a residential property boundary.		X		Contractor							
Design Feature 2	All noise-producing project equipment and vehicles using internal combustion engines will be equipped with mufflers; air-inlet silencers, where appropriate; and any other shrouds, shields, or noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed package equipment (e.g., arc-welders, air compressors) will be equipped with shrouds and noise control features that are readily available for that type of equipment.		X		Contractor							
Design Feature 3	All mobile or fixed noise-producing equipment used on the project that is regulated for noise output by a local, state, or federal agency will comply with such regulation while in the course of project activity.		X		Contractor							

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Design Feature 4	Electrically powered equipment will be used instead of pneumatic or internal combustion-powered equipment, where feasible.		X		Contractor							
Design Feature 5	Construction site and access road speed limits will be established and enforced during the construction period; speeds on unpaved roads will not exceed 20 miles per hour.		X		Contractor							
Design Feature 6	The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.		X		Contractor							
Design Feature 7	No project-related public address or music system will be audible at any adjacent noise-sensitive receptor.		X		Contractor							
TRAFFIC												
Design Feature 1	To minimize disruption to communities from construction traffic, the Water Authority's contractor will prepare and implement a traffic control plan. The plan will be prepared in accordance with the latest edition of the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (FHWA 2009), as modified by the most recent California supplement (FHWA 2012). The traffic control plan will be provided to the County of San Diego Department of Public Works, Transportation Division, for review and issuance of a Traffic Control Permit.	X	X		Contractor							
Design Feature 2	The project will not unreasonably restrict access to any private property.		X		Contractor							
UTILITIES AND SERVICE SYSTEMS												
Design Feature 1	The Water Authority will notify and coordinate with all other utility providers that own easements, ROWs, or facilities within or adjacent to the area affected by the proposed project. Any need to connect with or relocate utilities will be presented to the appropriate utility provider prior to commencement of construction.	X	X		Water Authority							

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