

**MITIGATION MONITORING AND REPORTING PROGRAM
FOR THE
SAN LUIS REY HABITAT MANAGEMENT AREA
RESTORATION PROJECT, FALLBROOK, CALIFORNIA**

SCH No. 2018061020

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 San Luis Rey Habitat Management Area Restoration 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. The Water Authority will revise this MMRP prior to construction, to incorporate additional conditions identified in the project's permits.

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
San Luis Rey Habitat Management Area Restoration Project, Fallbrook, 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							
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 as needed.		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 arroyo toad breeding and active foraging season (March 1 through June 30), the Water Authority shall conduct pre-activity surveys for the species prior to the start of construction work. Extreme weather conditions can cause variations in the breeding season; these conditions would be fully considered when developing a schedule of surveys. Surveys shall include potential breeding habitat within the impact area and foraging habitat that is contiguous with potential breeding habitat. Additionally, surveys must be conducted by an approved Environmental Surveyor, and occur under favorable conditions for detection of the species.	X			Water Authority/ Environmental Surveyor							
Mitigation Measure BIO-2	If tadpoles, toadlets, or toads are encountered, they shall be moved to the nearest suitable habitat and exclusionary toad fences shall be installed at least 21 days prior to impact to keep toads out of construction areas. A permitted biologist experienced with the identification, handling, and ecology of the arroyo toad, as approved by USFWS, shall implement and oversee proper execution of the fencing and relocation efforts. For the duration of construction, the Environmental Surveyor shall survey the enclosure on a daily basis early in the morning. To minimize injury to or mortality of individual arroyo toads, the USFWS may authorize qualified project biologists to relocate individual arroyo toads to nearby suitable habitat. All proposed arroyo toad relocations shall be approved by the Wildlife Agencies.		X		Environmental Surveyor							

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Mitigation Measure BIO-3	To ensure that diseases are not conveyed between work sites by the authorized biologist or assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (DAPTF) shall be followed at all times. The DAPTF fieldwork code of practice is contained in Attachment B-3 of the NCCP/HCP.		X		Environmental Surveyor							
Mitigation Measure BIO-4	Bullfrogs observed during pre-activity surveys that prey upon or displace arroyo toads shall be removed from suitable habitat areas, if possible.		X		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 non-native ants before installation at restoration sites. Non-native ants that penetrate native habitats appear to be partially supported by artificial irrigation associated with landscaping. Therefore, runoff from mitigation sites into native habitat would be minimized and managed.			X	Environmental Surveyor							
Mitigation Measure BIO-6	The Water Authority shall conduct USFWS protocol surveys for the southwestern willow flycatcher and least Bell's vireo under favorable conditions in areas of potential foraging or breeding habitat or assume occupancy of potential habitat, to ensure that this species is adequately addressed by impact avoidance, minimization, and mitigation. A federally permitted Environmental Surveyor would conduct surveys. If occupancy is assumed, a biomonitor must be on-site during impacts to ensure that no direct take of individuals occurs. Surveys would also be conducted when impacts could occur as a result of indirect impacts by placement of the project in or adjacent to occupied habitat or through creation of suitable conditions for brown-headed cowbirds (e.g., agricultural fields, livestock presence, woodland parks, roadsides).	X			Environmental Surveyor							
Mitigation Measure BIO-7	The Water Authority shall minimize impacts through timing of work in riparian habitat to avoid the nesting season for riparian avian species whenever possible, or ensure that habitat is removed prior to the initiation of the riparian avian breeding season.	X	X		Environmental Surveyor							
Mitigation Measure BIO-8	The Water Authority shall prohibit direct take of southwestern willow flycatcher and least Bell's vireo individuals and destruction of southwestern willow flycatcher and least Bell's vireo nests within an active territory.		X		Water Authority/ Environmental Surveyor							
Mitigation Measure BIO-9	For temporary impacts to occupied southwestern willow flycatcher habitat and least bell's vireo habitat, the work site shall be returned to preexisting contours, where appropriate, and revegetated with appropriate native species. Revegetation specifications shall ensure creation and restoration of riparian vegetation suitable for southwestern willow flycatcher. All revegetation plans shall require written concurrence of the Wildlife Agencies.			X	Water Authority/ Environmental Surveyor							
Mitigation Measure BIO-10	Where feasible for any wetland creation and/or restoration projects, the Water Authority shall maintain structural elements that provide age class and structure diversification for the project area to help promote the expansion of existing, or establishment of new, southwestern willow flycatcher and least Bell's vireo populations.		X		Water Authority/ Environmental Surveyor							

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Mitigation Measure BIO-11	If construction activities must commence during the riparian avian breeding season (March 15 through September 15), the Water Authority shall minimize impact through conducting southwestern willow flycatcher, yellow warbler, and yellow-breasted chat 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-12	If construction activities must commence during the riparian avian breeding season (March 15 through September 15), the Water Authority shall minimize impact through conducting least Bell's vireo nest surveys within 300 feet of all proposed activities. If active nests are encountered and construction activities must occur during the riparian avian breeding season, noise levels from human activities at the nest shall be restricted to less than 60 dB(A) Leq(1) or the ambient noise level plus 3 decibels (perceptible change threshold), whichever is greater. The Environmental Surveyor shall monitor noise levels and provide monitoring reports to the Water Authority to be included in the annual reports. Noise levels in excess of this threshold shall require consultation with the Wildlife Agencies and may require additional minimization measures (e.g., sound barriers).		X		Water Authority/ Environmental Surveyor							
NCCP/HCP Gen. 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 Gen. 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 Gen. Condition 3	Establish a habitat buffer when appropriate and feasible around covered plant species populations to support the natural suite of pollinators unless a biologically appropriate mitigation approach is agreed to with the Wildlife Agencies at the time of project specific environmental review.	X			Environmental Surveyor							
NCCP/HCP Gen. Condition 4	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			Environmental Surveyor							
NCCP/HCP Gen. Condition 5	Avoid driving or parking on sensitive and/or occupied habitat by keeping vehicles on roads and in designated staging areas.		X		Contractor							
NCCP/HCP Gen. Condition 6	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							
NCCP/HCP Gen. Condition 7	Monitor encroachment of non-native and invasive species into Covered Species populations and perform weed abatement as needed to improve the habitat.		X		Monitor: Environmental Surveyor Abatement: Contractor							

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NCCP/HCP Gen. Condition 8	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 Gen. Condition 9	Control dust when working near Covered Species populations and/or habitat in accordance with applicable regulations.		X		Contractor							
NCCP/HCP Gen. Condition 10	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							
NCCP/HCP Gen. Condition 11	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		X	Water Authority							
NCCP/HCP Gen. Condition 12	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 [restoration] sites into native habitat would be minimized and managed.		X	X	Inspection: Environmental Surveyor Best Management Application: Contractor							
NCCP/HCP Gen. Condition 13	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							
NCCP/HCP Gen. Condition 14	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 Gen. Condition 15	For new facilities adjacent to native habitat, minimize ornamental landscaping or irrigation not associated with native habitat restoration.	X			Water Authority							
NCCP/HCP Gen. Condition 16	Collection of covered plant and wildlife species by Water Authority personnel and contractors is prohibited.		X		Water Authority/ Environmental Surveyor							
NCCP/HCP Gen. Condition 17	Maintain and manage dispersal/movement corridors within the Plan Area that contribute to long-term population viability.	X			Water Authority							
NCCP/HCP Gen. Condition 18	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							

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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 prior to clearing.	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							
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 identified in a contract governing the Environmental Surveyor's project activity or otherwise 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							

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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	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	Removal and Disposal: Contractor Verification/ Documentation of Removal: Environmental Surveyor							
NCCP/HCP Minimization Measure 13	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 14	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 15 (a)	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.	X			Water Authority Contractor							

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NCCP/HCP Minimization Measure 15 (b)	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 the Endangered Species Act and California Endangered Species Act; 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 responsible for the education and training for new field personnel coming on-site after the start of a project.	X	X		Environmental Surveyor							
NCCP/HCP Minimization Measure 16	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 17	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 18	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 19	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 20	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 21	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 22	No pets will be allowed on any construction site.		X		Contractor							
NCCP/HCP Minimization Measure 23	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 24	Field personnel will be prohibited from pushing or dumping soil and brush into sensitive habitats.		X		Contractor							

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NCCP/HCP Minimization Measure 25	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 26	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 minimize impacts to the species according to the species-specific conditions outlined in Appendix B of the NCCP/HCP.		X		Contractor							
NCCP/HCP Minimization Measure 27	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 28	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 29	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/ Environmental Surveyor							
NCCP/HCP Minimization Measure 30	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			Contractor							
NCCP/HCP Minimization Measure 31	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 be taken to a disposal facility authorized to accept such materials.		X		Contractor							

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CULTURAL RESOURCES												
Design Feature 1	The Water Authority will develop and implement a cultural resources monitoring plan for the project's excavation phase, in coordination with the Native American tribes that expressed interest in the project during the consultation process pursuant to Assembly Bill 52. The cultural resources monitoring plan will specify the roles of Native American monitors and qualified archaeological monitors, and identify procedures for addressing the potential discovery of artifacts and other tribal cultural resources, including locating an area on site suitable for reinterment of resources that may be uncovered during project excavation.		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							
GEOLOGY AND SOILS												
Design Feature 1	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: 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). 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. 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. 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.	X	X		Contractor							

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	<ul style="list-style-type: none"> 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. f) Implementation of permanent native vegetation restoration 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 National Pollutant Discharge Elimination System 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	<p>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:</p> <ul style="list-style-type: none"> 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							
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							

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					
HYDROLOGY / WATER QUALITY												
Design Feature 1	By law, the project is required to comply with the State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). 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							
Design Feature 2	The project will implement the following source-control BMPs from the County BMP Design Manual: a) Control/minimize irrigation to prevent runoff from entering the San Luis Rey River. b) Control/minimize herbicide application to prevent discharge into the San Luis Rey River.		X		Contractor							
NOISE / VIBRATION												
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., 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							
Design Feature 4	Electrically powered equipment will be used instead of pneumatic or internal combustion-powered equipment, where feasible.		X		Contractor							

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					
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 / CIRCULATION												
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).	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, right-of-ways, 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							