



Mitigation Monitoring and Reporting Program
for the
2013 Regional Water Facilities Optimization and
Master Plan Update
and
Climate Action Plan
SCH# 2003021052



MARCH 2014

PREPARED FOR:



4677 Overland Avenue
San Diego, California 92123

PREPARED BY:



Carlsbad, California



Encinitas, California

**Mitigation Monitoring and Reporting Program
2013 Regional Facilities Optimization and Master Plan Update
and Climate Action Plan
SCH # 2003021052**

Prepared for the:



San Diego County Water Authority

4677 Overland Avenue
San Diego, California 92123

Prepared by:



Carlsbad, California

and

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1.0 INTRODUCTION

1.1 Background

Section 15097 of the State California Environmental Quality Act (CEQA) Guidelines requires a lead or responsible agency that approves or carries out a project where an Environmental Impact Report (EIR) has identified significant environmental effects to adopt a “program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.” In accordance with Section 15097 of the State CEQA Guidelines, this Mitigation Monitoring and Reporting Program (MMRP) has been prepared.

This MMRP has been prepared by the San Diego County Water Authority (Water Authority) to ensure that the proposed 2013 Regional Facilities Optimization and Master Plan Update and Climate Action Plan (Proposed Project) implements environmental mitigation, as required by the Supplemental Program Environmental Impact Report (SPEIR) for the Proposed Project. The MMRP provides a mechanism for monitoring the mitigation measures in compliance with the SPEIR, and general guidelines for the use and implementation of the monitoring program are described below.

1.2 Authority and Purpose

The MMRP developed for the proposed project has been prepared in compliance with the requirements established in CEQA. CEQA provides that when making findings, a public agency must adopt an MMRP for the changes to the project which it has adopted or made a condition of approval in order to mitigate or avoid significant project-related impacts on the environment. The MMRP is designed to ensure compliance during implementation of the approved project through ongoing monitoring and reporting of adopted mitigation measures, as well as environmental commitments incorporated into the project. The primary goal of the MMRP is to ensure that during final design, construction, and operation, the project will avoid or reduce potentially significant environmental impacts.

The achievement of this goal involves the following five key actions:

- Adoption of mitigation measures as identified in this MMRP and in the SPEIR as conditions of approval of the project.
- Implementation of the adopted mitigation measures as appropriate during design, construction, and/or operation of the project.

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- Implementation of a monitoring process that confirms the application of the adopted mitigation measures.
- Implementation of a monitoring process that measures the applied effectiveness of the adopted mitigation measures.
- Establishment of a review and decision process that modifies the adopted mitigation measures or institutes new measures, as necessary, to achieve the avoidance or reduction of significant impacts recognized in the SPEIR.

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2.0 ORGANIZATION

This MMRP is organized in tabular format by each mitigation measure (see Table 1). The mitigation measures in the table are coded by the alphanumeric identification consistent with the SPEIR. The following items are identified for each mitigation measure:

- **Method of Verification.** This column assigns verification of monitoring and reporting activities to the applicable monitor, professional, or agency.
- **Timing of Verification.** This column indicates when the monitoring and reporting activities occur relative to construction.
- **Responsible Party.** This column assigns responsibility for the monitoring and reporting activities.
- **Completion.** This column provides a location for the monitor to record their initials and the compliance date.

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3.0 PROGRAM MANAGEMENT

3.1 Monitoring Responsibility

The MMRP for the project will be in place through all phases of the project, including design, construction, and operation. The Water Authority is responsible for the overall implementation and management of the MMRP through the design, construction, and operation period. The Water Authority includes staff familiar with the project and qualified to determine if an adopted mitigation measure is being properly implemented. The Project Manager and/or assignee will be responsible for ensuring the following conditions are implemented:

- Appropriate specialists will be retained as needed to perform or monitor specific mitigation activities.
- Mitigation requirements will be described as appropriate in applicable construction bid packages.
- The MMRP Reporting Forms will be distributed to the appropriate parties so that specific action items can be developed to carry out the necessary mitigation measures. These will be listed in the implementation action items section of the form.
- Mitigation measures that continue into operational phases will be incorporated into the Water Authority's operational procedures.
- The Project Manager and/or assignee will approve, by signature and date, the completion of each action item that was identified on the MMRP Reporting Form.

All MMRP Reporting Forms for impacts requiring no further monitoring will be signed off as completed by the Project Manager and/or assignee at the bottom of the MMRP Reporting Form.

Unanticipated circumstances may arise requiring the refinement of mitigation measures and environmental commitments incorporated into the project. The Project Manager and/or assignee are responsible for approving any such refinements or additions. A revised MMRP Reporting Form will be prepared by the Project Manager and/or assignee for each such addition or refinement and provided to the appropriate design, construction, or operational personnel for compliance.

The Project Manager and/or assignee have the authority to stop the work of construction contractors if compliance with any aspect of the MMRP is not occurring after appropriate notifications have been issued.

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All active and completed MMRP Reporting Forms will be kept on file with the Water Authority. Forms will be available for inspection upon request at the following address:

San Diego County Water Authority
4677 Overland Avenue
San Diego, California 92123
Contact: Larry Purcell 858.522.6752

3.2 Dispute Resolution

It is expected that this MMRP will reduce or eliminate many potential disputes. However, even with the best preparation, disputes may occur. In such an event, the following procedure will be observed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the Water Authority's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- **Step 2.** If a dispute or complaint regarding the implementation or evaluation of the MMRP or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the Water Authority, any affected participant in the dispute or complaint may file a written "notice of dispute" with the Water Authority's Project Manager. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Project Manager or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Project Manager shall issue a written memorandum of his/her decision.

3.3 General Monitoring Procedures

Environmental Monitor

Many of the monitoring procedures will be conducted during the construction phase of the project. The Water Authority's environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

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Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between the Water Authority and any construction contractors.
- One or more pre-construction meetings will be held to inform and train construction personnel about the requirements of the monitoring program.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

General Reporting Procedures

A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the Water Authority on request.

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Table 1
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No.	Mitigation Measure	Method of Verification	Timing of Verification			Responsible Party	Completed		Comments
			Pre-Construction	During Construction	Post Construction		Initials	Date	
<i>Aesthetics</i>									
1a	Where possible, projects shall be sited in topographically screened locations, in locations screened by vegetation, or adjacent to existing facilities and surface disturbance to reduce visual contrast with adjacent undisturbed areas.	Civil Engineer	X			Water Authority			
1b	Design elements of the facility will incorporate surrounding architecture and topographical features and blend with the surrounding vegetation and colors.	Civil Engineer	X			Water Authority			
1c	Project facilities shall be painted inconspicuous colors that match the natural color scheme of the adjacent vegetation, rock formations, or exposed soils to reduce visual contrast.	Civil Engineer, Construction Contractor	X	X	X	Water Authority			
1d	Landscaping and/or fencing that screens project facilities from the view of adjacent residences and roads could also reduce the severity of aesthetic effects.	Civil Engineer, Construction Contractor		X	X	Water Authority			Landscaping will be provided by a contractor and shall be installed as soon as possible after construction.
2a	Avoid scenic resources, such as mature trees, rock outcroppings, and historic buildings, if possible. Where unavoidable, the removal of these resources will be minimized to the extent practical.	Civil Engineer, Construction Contractor	X	X		Water Authority			See MM-AES-1b above.

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2b	Should any of the Proposed Project modifications be constructed within the viewshed of a designated State or County scenic highway, the mitigation measures described above for Aesthetic Impact 1 will be implemented to reduce the severity of the aesthetic impacts to less-than-significant levels.	Civil Engineer	X			Water Authority			See MM-AES-1.
3a	Proposed Project modifications that will require night lighting will include a lighting plan at the time of final design that will identify the location of lights, how they will be aimed, and types of shielding that will be utilized to avoid the production of glare, minimize uplighting and light spill, and avoid the spread of stray light across site boundaries.	Civil Engineer, Construction Contractor	X	X	X	Water Authority			
3b	To reduce daytime glare, concrete or metal surfaces and structures will be constructed with materials that minimize reflection of light or sunshine.	Civil Engineer, Construction Contractor	X	X		Water Authority			See MM-AES-1b above.
4	During construction, removal of vegetation and grading shall be minimized to reduce visible disturbance. Following completion of construction, pipeline corridors and other disturbed areas shall be graded to follow the	Civil Engineer, Construction Contractor		X	X	Water Authority			See MM-AES-1b above.

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	natural landform and revegetated to reduce visual contrast (Water Authority's General Conditions and Standard Specifications, dated 2005, as amended).								
<i>Agricultural Resources</i>									
1a	Avoidance of construction on agricultural land where feasible.	Civil Engineer, Construction Contractor	X	X		Water Authority			
1b	If possible, schedule construction during periods of non-production	Civil Engineer, Construction Contractor	X	X		Water Authority			
1c	Compensate land owner for loss of land and/or production.	Water Authority	X			Water Authority			
<i>Air Quality</i>									
1	The following mitigation measure will be implemented during construction of the Proposed Project modifications and CAP to reduce exhaust emissions of ROG, NO _x , CO, SO ₂ , PM ₁₀ , and PM _{2.5} . <ul style="list-style-type: none"> • Heavy-duty diesel equipment engines will be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations. The Water Authority will require its construction contractors to implement this 	Construction Contractor		X		Water Authority			

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	measure to the extent practical. The following mitigation measures will be implemented to reduce fugitive dust including PM10 and PM2.5 emissions. <ul style="list-style-type: none"> • Apply water or chemical dust suppressants to un-stabilized disturbed areas and/or unpaved roadways in sufficient quantity and frequency to maintain a stabilized surface. • Water or water-based chemical additives will be used in such quantities to control dust on areas with extensive traffic including unpaved access roads. • Vehicles hauling dirt or fill will be covered with a tarp or by other means. 								
<i>Biological Resources</i>									
1a	In areas where NCCP/HCP non-covered listed or non-covered non-listed sensitive species (collectively "non-covered special-status species") may occur, ensure that biological surveys are conducted according to U.S. Fish and Wildlife Service protocols (when available) and special-status plant	Water Authority, Biologist	X			Water Authority			

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No.	Mitigation Measure	Method of Verification	Timing of Verification			Responsible Party	Completed		Comments
			Pre-Construction	During Construction	Post Construction		Initials	Date	
	species surveys are conducted at the appropriate time of year by a qualified biologist;								
1b	Avoid, to the extent practicable through design or site selection, non-covered special-status species and their habitats;	Water Authority	X			Water Authority			
1c	Utilize existing Water Authority standard construction specifications (General Conditions and Standard Specifications, dated 2005, as amended) to minimize direct and indirect impacts of construction on natural resources unless more stringent measures are identified in project-specific environmental impact review. These specifications may be used for construction within or adjacent to sensitive habitats requiring such mitigating measures as habitat revegetation, erosion control, and brush clearing protocols;	Construction Contractor		X	X	Water Authority			
1d	Initiate consultation with the appropriate State or Federal jurisdictional agency if the potential for non-covered listed species disturbance exists following final site selection, and comply with permit conditions; and	Water Authority	X	X	X	Water Authority			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
1e	Comply with all applicable permit conditions stated in any U.S. Army Corps of Engineer Section 404 permit and/or CDFG Streambed Alteration Agreement (F&G Code Section 1602).	Water Authority, Civil Engineer, Construction Contractor	X	X	X	Water Authority			
<i>Cultural Resources</i>									
1a	A qualified archaeologist shall ensure a recent records search has been completed at the appropriate California Historical Resources Information System (CHRIS) information center, and ensure that appropriate pedestrian surveys for the area of potential effect (APE) have been completed prior to construction. The purpose of these inventories will be to identify potentially significant historical resource constraints.	Archaeological Monitor	X			Water Authority			
1b	Any historical resources discovered by the qualified archaeologist as a result of the survey shall be evaluated as to their historical significance and appropriate mitigation measures identified and implemented.	Archaeological Monitor	X			Water Authority			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
2a	On-site archeological resource surveys shall be conducted by a qualified archaeologist prior to the construction of a new facility. The purpose of this survey will be to more precisely locate and map significant archeological resources.	Archaeological Monitor and/or Native American Representative	X			Water Authority			
2b	Any resources discovered by the qualified archaeologist as a result of the survey shall be evaluated as to their cultural and archeological significance and appropriate mitigation measures identified.	Construction Contractor, Archaeological Monitor	X			Water Authority			
2c	The qualified archaeologist shall recommend archaeological field monitoring when excavation occurs in areas where subsurface archeological resources are considered highly likely to possibly exist. The monitoring may include participation by a Native American monitor.	Archaeological Monitor	X			Water Authority			
2d	In the event that unanticipated archeological resources are encountered during Proposed Project modifications and CAP construction, all earthmoving activity shall cease until the qualified archaeologist examines the findings, assesses their significance, and offers recommendations	Archaeological Monitor		X					

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	for procedures deemed appropriate to either further investigate or mitigate adverse effects to those archeological resources that have been encountered (e.g., excavate the significant resource). These additional measures shall be implemented.								
3	In the event of accidental discovery of any human remains, the County coroner shall be notified immediately and construction activities shall be halted in accordance with Section 15064.5(e)(1) of the CEQA Guidelines and California Health and Safety Code Section 7050.5. If the remains are found to be Native American, Health and Safety Code Section 7050.5, Subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill 2641) shall be followed. No additional work shall take place within the immediate vicinity of the find until the identified appropriate actions have been completed.	Construction Contractor, Archaeological Monitor		X		Water Authority			
<i>Geology and Soils</i>									
1a	To reduce the hazards of seismic damage, project sites will not be located within obvious fault zones, if possible. No projects are near any known Holocene (within the	Geotechnical Engineer, Civil Engineer, Construction	X	X		Water Authority			

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	last 10,000 years) faults, but fault movement often occurs on previously unknown or “inactive” faults throughout the State. A geotechnical engineering investigation consistent with California geologic and engineering standards will be conducted for applicable facilities by a licensed geotechnical engineer. The geotechnical engineer will prepare a report that summarizes the results of a field investigation, including site inspection and soil testing, potential geologic hazards (including fault rupture and severe secondary effects of earthquakes), along with design criteria and construction methods to effectively construct the Proposed Project modifications and CAP modifications with an acceptable level of risk. The report will address all geologic and geotechnical factors related to the design and construction of the Proposed Project modifications and CAP modifications. The geotechnical engineering investigation will delineate areas of active and potentially active faults. To the extent possible, it will identify fault traces and locate them in the field so faults can be avoided.	Contractor							

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1b	All practicable precautions will be taken to design and construct project facilities to withstand the projected ground shaking associated with the most probable magnitude earthquake (MPE) in the area. This includes secondary hazards induced by earthquakes (liquefaction, lurching, lateral spreading, rapid differential settlement, induced landslides, and rock-fall avalanche). The MPE represents the strongest earthquake likely to occur over the design life of the projects. Project structures will be designed using project-specific criteria in accordance with the latest revision of the National Electrical Safety Code (American National Standards Institute [ANSI] C.2) and the CBC.	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X		Water Authority			
2a	Erosion Control Plans shall be prepared as necessary for each of the Proposed Project modifications and CAP modifications which identify the best management practices that will be implemented to reduce soil loss and water quality effects. a. The Erosion Control Plan will include, but not be limited to: i. Confine all vehicular traffic associated with construction to	Geotechnical Engineer, Civil Engineer, Construction Contractor, Biological Monitor	X	X		Water Authority			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	designated rights-of-way, material yards, and access roads; ii. Limit disturbance of soils and vegetation removal to the minimum area necessary for access and construction; iii. Where vegetation removal is necessary, use cutting/mowing methods instead of blading, wherever possible; iv. Graded material will be sloped and bermed, where possible, to reduce surface water flows across the graded area; v. Use detention basins, certified weed-free straw bales, or silt fences, where appropriate; and vi. Use drainage control structures, where necessary, to direct surface drainage away from disturbance areas and to minimize runoff and sediment deposition downslope from all disturbed areas. These structures include culverts, ditches, water bars (berms and cross ditches), and sediment traps.								

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2b	Implement Hydrology and Water Quality MM-HYD-1.	Geotechnical Engineer, Civil Engineer, Construction Contractor, Biological Monitor	X	X	X	Water Authority			See MM-HYD-1
3	The Water Authority shall require the construction contractor to comply with the Water Authority's General Conditions and Standard Specifications, dated 2005, as amended.	Water Authority, Construction Contractor		X		Water Authority			
<i>Land Use</i>									
1	Implement Traffic Mitigation Measures MM-TRA-1 and MM-TRA-2, and Noise Mitigation Measures MM-NOI-1, MM-NOI-2, MM-NOI-3, and MM-NOI-4.	Civil Engineer	X	X		Water Authority			See MM-TRA-1 and MM-TRA-2 and MM-NOI-1, MM-NOI-2, and MM-NOI-3.
2a	For any existing land uses that would be displaced by Proposed Project modifications and CAP modifications, the Water Authority will compensate property owners, in accordance with law, at fair market value as determined by certified independent appraisers and as required by law..	Certified Independent Appraiser, Water Authority	X			Water Authority			

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2b	Relocation assistance will be offered to displaced residents and commercial businesses in accordance with applicable law.	Water Authority	X			Water Authority			
3a	The construction contractor will coordinate construction activities with the operator of the affected utility to minimize disruption of service.	Construction Contractor	X	X		Water Authority			
3b	Relocation, modification, or interruption of existing linear projects or disruption of service will be addressed in accordance with applicable law.	Water Authority	X	X		Water Authority			
4	While zoning ordinances do not apply to the location or construction of facilities used for the production, generation, storage, or transmission of water (California Government Code Section 53091), the Water Authority will submit project proposals to the planning agencies of those cities/communities potentially affected for review of general plan conformity in accordance with applicable law. Land uses within the established Preserve Areas are generally limited to those which are considered compatible	Civil Engineer, Water Authority	X			Water Authority			

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	with the need to permanently protect natural resources. Necessary public water infrastructure upgrades and new construction along with maintenance and operation activities required by the Water Authority to fulfill its mission statement are consistent with planned uses within the Water Authority NCCP/HCP. The Proposed Project modifications and CAP modifications will be incorporated into the Water Authority NCCP/HCP in a manner that will not preclude planned preserve areas and will conform to the appropriate subarea plan with regard to site design criteria and mitigation. The general guidelines collectively specified within the Water Authority NCCP/HCP will allow compatible development for these Proposed Project modifications and CAP modifications in the appropriate areas.								
<i>Noise</i>									
1a	The Water Authority shall ensure that construction activities are conducted consistent with the Water Authority's General Conditions and Standard Specifications, dated 2005, as amended including:	Civil Engineer, Construction Contractor		X		Water Authority			

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	i. Comply with relevant/applicable sound control and noise level rules, regulations, and ordinances which apply to any work performed; ii. Equip each internal combustion engine used for any purpose on the job or related to the job with a muffler of a type recommended by the manufacturer. Do not operate internal combustion engines on the project without said muffler; iii. Noise level requirements shall apply to all equipment on the job or related to the job, including but not limited to trucks and transient equipment that may or may not be owned by the Contractor. Avoid the use of loud sound signals in favor of light warnings except where required by safety laws for the protection of personnel; iv. To the extent practical and feasible, construction work shall be accomplished on a regularly scheduled eight (8)-hour-per-								

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	day work shift basis, Monday through Friday, between the hours of 7 a.m. and 5 p.m. .								
1b	Some idling of construction equipment will occur; however, equipment shall be turned off when not being utilized for more than 10 minutes.	Construction Contractor		X		Water Authority			
1c	Noise barriers may be necessary around noisy equipment or near a noise sensitive area if other administrative controls cannot be implemented.	Construction Contractor		X		Water Authority			
2	The Water Authority shall ensure that all blasting activities are conducted consistent with the Water Authority's General Conditions and Standard Specifications, dated 2005, as amended including: <ul style="list-style-type: none"> • Blasting during construction shall only be conducted when other practicable excavation methods are not available. • Advance written notification of the date and time of any blasting activities shall be provided to all residents and businesses within 400 feet of the blast area. • In the event that blasting is 	Civil Engineer, Construction Contractor, Blasting Contractor	X	X		Water Authority			

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	necessary, a Blasting Plan shall be developed and approved by the local regulatory authority.								
3a	If noise from equipment or machinery operation exceeds applicable and relevant regulations for noise-sensitive locations, low noise equipment or machinery shall be provided to achieve the necessary noise limits.	Construction Contractor		X		Water Authority			
3b	If low noise equipment or machinery is insufficient in meeting the required noise limits, a noise barrier (e.g., building or other method) shall be placed around the equipment to provide the necessary noise attenuation.	Civil Engineer, Construction Contractor		X		Water Authority			
3c	A combination of items (a) and (b) above shall be used to control the noise level to applicable limits from the equipment or machinery operating at the site.	Construction Contractor		X		Water Authority			
4	Prior to the construction of new facilities within 500 feet of sensitive structures, a groundborne vibration study shall be conducted. The purpose of the study will be to more precisely determine potential vibration effects from construction or operation, using the project-specific alignments and equipment. The vibration	Qualified Acoustician	X			Water Authority			

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	study shall document the methodology used, results, effect assessment, and mitigation measures, if necessary.								
<i>Paleontological Resources</i>									
1	<p>In order to mitigate potential effects, the following measures shall be implemented in the event project construction will occur on geologic formations of moderate to high sensitivity for paleontological resources. These activities will be carried out by a qualified professional paleontologist.</p> <ul style="list-style-type: none"> • Existing bedrock outcrops and (possibly) excavation of test trenches will be inspected for fossil remains; • Surface collection of discovered fossil remains will be conducted via simple excavation of exposed specimens and possibly plaster-jacketing large and/or fragile specimens or more elaborate quarry excavations of richly fossiliferous deposits; • Stratigraphic and geologic data will be recovered to provide context for recovered fossil remains. These data 	Civil Engineer, Paleontological Monitor	X			Water Authority			

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	<p>will typically include a description of lithologies of fossil-bearing strata, measurement and description of the overall stratigraphic section, and photographic documentation of the setting;</p> <ul style="list-style-type: none"> • Laboratory preparation of collected fossil remains will be conducted for potentially significant or unique finds; • Prepared significant or unique fossil remains will be cataloged and identified; • Cataloged fossil remains will be transferred for storage to an accredited institution, if feasible; and • A final report summarizing the findings from the laboratory and field, stratigraphic units inspected, typed of fossils discovered, and the significance of the curated collection will be prepared. 								
<i>Hazards and Hazardous Materials</i>									
1a	Prior to construction, develop and implement (in consultation with the Fire Marshal) a Fire Prevention Program for each facility, as necessary.	Civil Engineer, Fire Marshal, Construction Contractor	X	X		Water Authority			

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1b	Develop an Emergency Response Plan (ERP) for each new or expanded facility, as necessary. Each ERP shall be developed by the facility operator in coordination with the County Office of Emergency Services, the County Environmental Health Department, and the appropriate Fire Protection District.	Civil Engineer, Facility Operator			X	Water Authority			
2	The Water Authority will develop an ERP in conjunction with the local fire department that will incorporate appropriate actions in the case of an accidental release of hazardous material. For example, features that could be installed to minimize the risk of public exposure to hazardous materials or gases due to an unintentional release include: <ul style="list-style-type: none"> a. Chlorine and ammonia gas detection and alarm systems that operate continuously 24 hours per day, 7 days per week; b. Wind monitors to determine the downwind threatened areas; and c. Coordination and pre-emergency planning with the 	Civil Engineer, Fire Marshal, Construction Contractor	X	X	X	Water Authority			

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	Local Emergency Planning Committees (LEPCs) and the surrounding communities.								
3	<p>In order to mitigate potential health hazards related to exposure of construction personnel to hazardous materials in the soil, the Water Authority will complete the following steps for each site proposed for disturbance as part of a project-facilitated construction activity in the project area:</p> <p>Step 1: Investigate the site to determine whether it has a record of hazardous material contamination; and if so, characterize the site according to the nature and extent of soil contamination that is present before development activities proceed at that site.</p> <p>Step 2: Determine the need for further investigation and/or remediation of the soils conditions on the contaminated site. For example, if there will be little or no contact with contaminated soil, industrial cleanup levels will likely be applicable. If the slated development activity could involve human contact with</p>	Hazardous Materials Monitor, Civil Engineer, Construction Contractor	X	X		Water Authority			

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	soils, such as may be the case with residential use, then Step 3 should be completed. If no human contact is anticipated, then no further mitigation is necessary. Step 3: If it is determined that extensive soil contact will accompany the intended use of the site, undertake a Phase II investigation involving soil sampling at a minimum. Should further investigation reveal high levels of hazardous materials in the site soils, mitigate health and safety risks according to County Department of Environmental Health and Regional Water Quality Control Board regulations. This will include site-specific health and safety plans prepared prior to undertaking any building or utility construction.								
4	The Water Authority or its construction contractor would close construction areas from public access and will implement Traffic Control Plans to minimize hazards to recreational users from construction-related traffic. a. The Water Authority will require its workers to exercise caution	Construction Contractor, Civil Engineer		X	X	Water Authority			

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	and maintain safe travel speeds when driving within recreational and open space areas to minimize the risk of accidents with recreational users. b. The Water Authority will fence and lock potentially dangerous structures to prevent members of the public from climbing on or entering these facilities to minimize the risk of injuries or falls.								
<i>Recreation</i>									
1	Restoration and/or reopening of recreational facilities temporarily affected by Proposed Project modifications and CAP modifications, such as parking areas, picnic grounds, trails, and other temporarily closed facilities after completion of project construction.	Civil Engineer			X	Water Authority			
2	Affected public agencies will be compensated for possible loss of business revenue from disruption of recreational activities during construction.	Water Authority	X			Water Authority			

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3	The Water Authority will coordinate with relevant/applicable agencies to develop project design or construction methods that minimize effects to users of the recreation area or facilities.	Civil Engineer, Water Authority	X			Water Authority			
<i>Traffic and Transportation</i>									
1a	In order to mitigate the potential traffic and circulation effects of the Proposed Project modifications, the following mitigation measures will be implemented as appropriate on a project-by-project basis and in accordance with County Water Authority Act, section 5 paragraph (6), when applicable. <ul style="list-style-type: none"> a. Prior to the start of the construction phase, the contractor shall submit a Traffic Control Plan to the appropriate local jurisdiction for review and approval. The plan shall be consistent with the Caltrans Traffic Manual, Chapter 5, and include the following information: <ul style="list-style-type: none"> i. Signage posted in areas designated as temporary traffic control zones; and ii. Speed limits to be observed within control zones. 	Construction Contractor	X			Water Authority			

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1b	Where appropriate for work on public roadways, the Water Authority will submit a set of proposed construction plans to agencies with jurisdiction over the roadways to allow them to comment on the proposed plans.	Civil Engineer, Construction Contractor, Agencies with roadway jurisdiction	X			Water Authority			
1c	During construction, the Water Authority shall implement traffic management measures, as deemed necessary and applicable by a properly licensed engineer: <ul style="list-style-type: none"> i. Temporary traffic lanes shall be marked, barricades and lights shall be provided at excavations and crossings; ii. Pipeline construction activities shall affect the least number of travel lanes as possible, with both directions of traffic flow being maintained at all times, to the extent feasible; iii. Pipeline construction shall avoid the morning and evening peak traffic periods to the extent feasible; iv. Construction within any major intersection shall be restricted to only one-half of an intersection at 	Civil Engineer, Construction Contractor	X	X		Water Authority			

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	<p>any one time in order to maintain one lane of traffic flow in each direction. Pipeline crossings of freeways, light rail, and railroad tracks shall be constructed using methods that provide minimal disruption to freeway, and railroad operations, to the extent feasible;</p> <p>v. Construction across on- and off-street bikeways shall be done in a manner that allows for safe bicycle access or bicycle traffic will be safely rerouted;</p> <p>vi. Private driveways located within construction areas will remain open to maintain access to the maximum extent feasible. It is anticipated that if the trench will remain open in front of a private driveway for more than 5 days, metal plates would be used to provide 24-hour access, except for up to 3 hours of blockage as needed during construction; and</p> <p>vii. To minimize potential cumulative traffic effects as a result of lane closures during construction, the</p>								

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	Water Authority will require that the project construction contractor(s) coordinate with construction contractor(s) for any concurrent nearby projects that are planned for construction.								
1d	During construction, the Water Authority shall notify all affected fire, police, and paramedic departments/services as well as any affected public transportation agencies of the schedule and duration of construction activities affecting roadways.	Civil Engineer, Construction Contractor		X		Water Authority			
1e	The Water Authority shall seek to coordinate all traffic-control plans in the local project area so that conflicts can be minimized (e.g., by staggering construction schedules).	Civil Engineer, Construction Contractor	X	X		Water Authority			
2	Following or during construction, as necessary to maintain safe driving conditions, any damage to existing roadways caused by construction vehicles will be repaired as determined appropriate by the Water Authority.	Construction Contractor		X	X	Water Authority			
<i>Utilities and Public Services</i>									
1	The Water Authority shall ensure that the construction contractor complies with the Water Authority's General Conditions and	Civil Engineer, Construction Contractor		X		Water Authority			

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	Standard Specifications, dated 2005, as amended (Protection of Existing Facilities), which describes procedures for locating, protecting, and relocating existing underground utilities so that any service interruptions are temporary.								
2	Effects to schools related to construction activity shall be mitigated as follows: a. Implement MM-TRA-1. b. When practicable, potentially disruptive construction activities shall be scheduled when the schools are not in session.	Civil Engineer, Construction Contractor	X			Water Authority			See MM-TRA- 1
<i>Hydrology and Water Quality</i>									
1	The Water Authority will comply, where applicable, with all current State, regional, and city water quality provisions:	Civil Engineer, Construction Contractor, Geotechnical Engineer	X	X	X	Water Authority			
1a	The Water Authority shall ensure that all ground-disturbing activities are conducted consistent with the Water Authority's General Conditions and Standard Specifications, dated 2005, as amended.	Civil Engineer, Construction Contractor, Geotechnical Engineer		X	X	Water Authority			

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1b	File with the RWQCB a Notice of Intent to comply with the Statewide General Permit for Construction Activities.	Civil Engineer	X			Water Authority			
1c	File with the SWRCB or the RWQCB, as applicable, a Notice of Intent and/or other permit registration documents necessary to authorize any non-stormwater discharges that are not covered under the Statewide General Permit for Construction Activities, including pipeline dewatering discharges, utility vault dewatering, and/or groundwater dewatering discharges.	Civil Engineer	X			Water Authority			
1d	Prepare and implement a project-specific Stormwater Pollution Prevention Plan (including an erosion control plan as described in MM-GEO-2) if grading or extensive excavation is involved.	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X	X	Water Authority			
1e	Implement a monitoring, inspection, and documentation program to assure the effectiveness of control measures, including post-construction measures.	Civil Engineer		X	X	Water Authority			
1f	Obtain or comply with existing General Stormwater Discharge Permit(s) for industrial activities, where applicable.	Civil Engineer	X	X	X	Water Authority			
1g	Comply with the NPDES Phase II Non-Point Discharge Program.	Civil Engineer	X	X	X	Water Authority			

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2	Project facilities shall comply with construction standards which include, but are not be limited to: <ul style="list-style-type: none"> a. designing structural components to be capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and b. having design and construction plans certified by a registered civil engineer or architect, who will review and certify that they are in compliance with the Water Authority's General Conditions and Standard Specifications, dated 2005, as amended. 	Civil Engineer	X			Water Authority			

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