

## **Section 5 Mitigation Monitoring and Reporting Program**

## Section 5 Mitigation Monitoring and Reporting Program

Mitigation measures were incorporated into the Riverside-Corona Feeder (“RCF”) Project to reduce potential significant environmental impacts identified in the Project Draft Supplemental Environmental Impact Report/Environmental Impact Statement (“SEIR/EIS”). Pursuant to Section 15097 (c) of the California Environmental Quality Act (CEQA) Guidelines, a written monitoring and reporting program has been compiled to verify implementation of adopted mitigation measures. "Monitoring" refers to the ongoing or periodic process of project oversight. "Reporting" refers to the written compliance review that will be presented to the responsible parties included in the table below. A report can be required at various stages throughout Project implementation or upon completion of the mitigation measure. The following table provides the required information which includes identification of the potential impact, the various mitigation measures, applicable implementation timing, identification of the agencies responsible in implementation, and the monitoring/ reporting method for each mitigation measure identified.

Additionally, as a result of comments on the Draft SEIR/EIS, modifications have been made to mitigation measures and four mitigation measures were added. None of these modifications or additions result in the conditions covered under *CEQA Guidelines* Section 15088.5, which would require recirculation of the Draft SEIR/EIS. They all represent either minor modifications that merely clarify the reduction of impacts clearly stated in the Draft SEIR/EIS. No new issues or additional environmental impacts will result from these changes.

Western Municipal Water District (“WMWD”) will have the responsibility for implementing the measures and various public agencies will have the primary responsibility for enforcing, monitoring, and reporting the implementation of the mitigation measures. The required mitigation measures are listed and categorized by impact area, with an accompanying identification of the following:

- Impact Category
- Applicable Alternative
- Mitigation Measures
- Responsible Party – the agency to which reports involving feasibility, compliance, implementation, and development are made
- Monitoring/Reporting Method Action Indicating Compliance
- Verification of Compliance: Date complete, Signature and comments.

**Acronyms Used in the MMRP**

The following acronyms are used in the MMRP:

ACOE	U.S. Army Corps of Engineers
BATC	Basin Area Technical Advisory Committee
BMP	Best Management Practices
CAPCOA	California Air Pollution Control Officers Association
CAGN	California gnatcatchers
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CESA	California Endangered Species Act
DSF	Delhi sands flower-loving fly
ESA	Environmental Site Assessment
LBV	Least Bell's vireo
MLD	Most Likely Descendent
MMRP	Mitigation and Monitoring Reporting Program
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
PSE	Participating Special Entity
RCA	Regional Conservation Authority
RCF	Riverside-Corona Feeder Project
RTA	Rapid Transit Authority
SAS	Santa Ana sucker
SBAIC	San Bernardino Archaeological Information Center
SCAQMD	Southern California Air Quality Management District
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SWPPP	Stormwater Pollution Prevention Plan
SWWF	Southwestern Willow Flycatcher
USFWS	United States Fish & Wildlife Service
WMWD	Western Municipal Water District

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Aesthetics	All Alternatives	<b>MM Aes 1</b> (AES 1): Plants and trees removed or damaged by the proposed project shall be replaced pursuant to the standards and requirements of each jurisdiction within which the loss or damage occurs.	Encroachment permit or other approved by affected agency. Installation no later than 30 days after construction is complete.	WMWD Local affected agency approving and inspecting project.	Approved plans and final site inspection.			
	All Alternatives	<b>MM Aes 2</b> (AES 2): The location of all existing mature trees, palms, and other landscaping shall be noted on the construction drawings that will be prepared for this project to facilitate review and proper permitting by the affected jurisdiction. Generally, a mature wood tree is considered to have a diameter of 8-10 inches or more at 4½ feet off the ground. A palm tree is considered to be mature at 25 feet or more in height. Citrus trees are mature when commercial levels of fruit-bearing occur at about 5 to 7 years.	Plan preparation	WMWD	Plan approval by WMWD.			
	All Alternatives	<b>MM Aes 3</b> (AES 3): If construction activities that require digging are located closer than eight feet from a mature palm (over 25 feet in height), a certified arborist shall evaluate the specific palm(s) to determine if the palm can remain in place, be relocated successfully or if project redesign may be warranted. If the palm must be removed, replacement shall be pursuant to the requirements of the jurisdiction within which the palm(s) is/are located.	Prior to construction plan completion and as early in the design process as possible.	WMWD	Arborist to present WMWD with findings report to be incorporated into project design and landscape plans.			
	All Alternatives	<b>MM Aes 4</b> (AES 4): If construction activities that require digging are located closer than thirty feet from the drip line of a mature wood tree, a certified arborist shall evaluate the specific tree(s). The arborist will recommend the course of action most likely to preserve the tree including but not limited to trimming to help with stability, no action and the tree remains in place as is, project redesign, or the means to achieve a successful relocation. If the tree must be removed, replacement shall be pursuant to the requirements of the jurisdiction within which the tree(s) is/are located.	Prior to construction plan completion and as early in the design process as possible.	WMWD	Arborist to present WMWD with findings report to be incorporated into project design and landscape plans.			
	Preferred Alternative Only	<b>MM Aes 5:</b> To minimize the visual impact of a large reservoir/tank from public roads and hilltops in the vicinity, the Mockingbird Connection tank shall be buried and backfilled with dirt to where no more than three (3) feet of tank is visible. The top of the tank need not be buried, so as to allow for maintenance access. The disturbed and manmade slopes around the tank shall be stabilized and re-landscaped with a palette of plants consistent with the plant mix that is established as part of the revegetation requirements for the site, as determined by WMWD and the US Fish and Wildlife Service during Section 7 Consultation. Prior to the approval of grading plans, the grading and landscape plans for the reservoir/tank will be reviewed by WMWD and the City of	Prior to Grading	WMWD City of Riverside	Grading and landscape plans shall be reviewed.			

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		Riverside.						
	All Alternatives	<b>MM Aes 6:</b> To minimize the visual impact of above-grade facilities associated with pump/booster stations, all the pump/booster stations shall be enclosed and/or screened within a building, walls, or fencing, and with landscaping. Prior to building plans, pump enclosure plans and landscape plans will be reviewed by WMWD.	Pre-Construction	WMWD	Building, pump enclosure and landscape plans shall be reviewed.			
Air Quality	All Alternatives	<b>MM Air 1:</b> Prior to construction of the proposed improvements, the project proponent will provide a traffic control plan that will describe in detail safe detours around the project construction site and provide temporary traffic control (i.e. flag person) during earthen material transport and other construction-related truck hauling activities (10% reduction) <sup>1</sup> .	Prior to construction with early consultation desired by jurisdiction(s) for each Reach. See <b>MM Trans 2</b> .	WMWD	Traffic Control Plan provided to each jurisdiction prior to construction. See <b>MM Trans 2</b> .			
	All Alternatives	<b>MM Air 2:</b> Prior to construction of the proposed improvements, arrangements will be made with Southern California Edison to facilitate the use of electricity from power poles as a primary source or power for stationary construction equipment, unless construction is occurring at locations where power poles are not available. If access to power poles is not available, the following options must be used to supply the power needs for construction: 1) use natural gas fueled generator sets; 2) use low emission, dual fueled generator sets; or 3) other low-emission power sources/supplies as appropriate and feasible.	During construction, but type of power source to be specified on construction plans.	WMWD	Construction drawing specifications, WMWD site inspections.			
	All Alternatives	<b>MM Air 3:</b> During construction of the proposed improvements, all mobile and stationary-construction equipment will be properly maintained at an off-site location including proper tuning and timing of engines (5% reduction) <sup>1</sup> . Equipment maintenance records and equipment design specification data sheets shall be kept on-site for the complete duration of construction.	During construction.	Contractor	Construction drawing specifications and WMWD inspections.			
	All Alternatives	<b>MM Air 3a:</b> Construction deliveries shall be consolidated and scheduled to off-peak hours to reduce congestion of local streets.	During construction	Contractor construction manager	Report to WMWD and included in Traffic Control Plan.			
	All Alternatives	<b>MM Air 4a:</b> To reduce fugitive dust emissions, the contractor shall provide WMWD with sufficient proof of compliance with Rule 403 and other dust control measures including, but not limited to: <ul style="list-style-type: none"> <li>requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain);</li> <li>requiring all trucks hauling dirt, sand, soil, or other loose materials are to be covered or must maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the</li> </ul>	During construction	Contractor construction manager	Report to WMWD.			

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		load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code; <ul style="list-style-type: none"> <li>• suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour over a 30-minute period;</li> <li>• post contact information outside the property for the public to call if specific air quality issues arise;</li> <li>• use SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials, replace ground cover in disturbed areas as quickly as possible; <u>and</u></li> <li>• install gravel bed trackout apron (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) to reduce mud/dirt trackout from unpaved truck exit routes where appropriate (i.e., Mockingbird reservoir and booster station, Clay Street booster station).</li> </ul>						
	All Alternatives	<b>MM Air 5:</b> To address the CAPCOA White Paper on CEQA and Climate Change (CAPCOA) MM E-1 and reduce energy use, high-efficiency pumps shall be used within the project facilities. Pumps shall be selected based on the optimal pump to use for the particular application (i.e., location, hydrology, size, purpose). This results in low energy use for the application. The project will use pumps that are as energy efficient as possible without sacrificing performance.	During construction	Contractor construction manager	Report to WMWD.			
	All Alternatives	<b>MM Air 6:</b> To reduce consumption due to all non-pumping related energy, solar generation is required for lights, timers, landscape irrigation systems, and all other non-pumping energy uses.	During construction	Contractor construction manager	Report to WMWD.			
	All Alternatives	<b>MM Air 7:</b> To reduce construction vehicle emissions, the bid specification packages for individual Project construction phases shall require the bidding company's fleet of off-road diesel-powered construction equipment greater than 25 hp to meet Tier 3 off-road emissions standards or better. Any emissions control device used by the contractor shall achieve Level 3 emissions reductions of no less than 85 percent for particulate matter, as specified by CARB regulations. The bidding company shall also provide certification that their fleet is in compliance with CARB's In-Use Off-Road Diesel Vehicle Regulation in effect at that time, or proof that the bidding company has applied to the SCAQMD SOON Program (and/or other applicable grant programs) to acquire funding assistance to bring it into compliance. During the bid process, proof of compliance shall be provided to WMWD, which shall include but is not limited to, CARB and/or SCAQMD operating permit(s), and other documentation such as a copy of	Prior to close of bidding process.	WMWD	Submittal of proof of fleet compliance.			

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		each unit's certified tier specification, BACT documentation, and/or other compliance documentation.						
Biological Environment	All Alternatives	<b>MM Bio 1:</b> In Reach A or Central Reach crossings of the Santa Ana River, the dewatering activities shall take place during the period from October 1 through the end of February. This is within the season when the dominant plant species of these riparian communities are dormant. Dewatering outside of this period could subject these communities to stress, desiccation, and potential defoliation. In addition, adherence to this suggested schedule avoids the generally accepted breeding chronology for nesting by the least Bell's vireo and southwestern willow flycatcher in southern California (USFWS b, Sogge et al.), obviating the need for focused surveys that may be required, due to the project's potential to have significant noise impacts to these two listed migratory species. This suggested schedule also avoids the breeding season of the federally listed arroyo toad, generally regarded as mid-March through July 1 (USFWS c), thereby avoiding potential impacts to this species as well. Impacts to the arroyo toad during the breeding season would be direct, including physical damage to mature individuals and interference with breeding activities. Should it not be feasible to adhere to this schedule, additional mitigation measures are required, as specified below.	Construction of Santa Ana River crossing Oct 1–Feb 28.	WMWD and Contractor	Construction drawing specifications. WMWD site inspection.			
	2005 Alternative Only	<b>MM Bio 2:</b> (Applicable to 2005 Project Alignment, only) Should the construction occur during the breeding season for the arroyo toad (March 15–July 1), a protocol-level survey shall be conducted at the Santa Ana River (Reach A), to determine presence/absence. If the arroyo toad is found to be present in the vicinity of Reach A, incidental take permits (through either Section 7 or Section 10) shall be applied for. The survey reports shall identify further measures to be taken to avoid or minimize adverse project effects to the protected species and their habitat.	Survey conducted throughout Mar 15–Jul 1 timeframe. (Six (6) surveys required in all.)	WMWD	Survey report. Section 7 permit, if required.			
	All Alternatives	<b>MM Bio 3a:</b> Should construction occur during the breeding season for the least Bell's vireo (LBV) or southwestern willow flycatcher (SWWF) (March 15 through September 15), protocol-level surveys shall be conducted prior to construction at the following locations: the Santa Ana River (Reach A and Central Reach), Spring Brook wash (Reach B), the riparian vegetation along the Mockingbird Canyon alignment (Reach E), potentially suitable habitat in the Northern Reach (as identified in the Glenn Lukos Associates, Inc. 2008 report), and the drainage located south of the Corona Landfill (Reach H); or presence can be assumed. If surveys document the presence of LBV	Flycatcher survey conducted May 15–Jul 17. (Five (5) surveys required in all.)  Vireo survey conducted Apr 10–Jul 31. (Eight (8) surveys in all.)	WMWD and Contractor	Survey reports. Construction drawing specifications.			

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		<p>and SWWF, impacts to LBV and SWWF would be mitigated below the level of significance when occupied riparian forest /woodland/scrub is fenced and direct impacts are avoided and construction within 500 feet of occupied habitat occurs only between September 15th and March 15th to avoid indirect impacts to nesting LBV. If avoidance is not feasible, a temporary noise barrier shall be used during construction, at the appropriate location(s), in coordination with CDFG and the USFWS. The noise barrier shall attenuate noise levels to 60 dBA or less, at the edge of breeding habitat. If surveys indicate that these species are not present, this measure will not be required. Additional or alternative measures to avoid or minimize adverse project effects to LBV and SWWF, as identified by the USFWD in Section 7 Consultation and CDFG, shall be implemented. However, if all avoidance measures cannot be implemented such that “take” of LBV and SWWF is avoided. Take Authorization from USFWS through Final Biological Opinion and Incidental Take Statement and from CDFG through issuance of a CESA ITP or compliance with Fish and Game Code Section 2080.1, will be obtained.</p>						
	All Alternatives	<p><b>MM Bio 3b:</b> For the Santa Ana River (Central Reach), Spring Brook wash (Reach B), the riparian vegetation along the Mockingbird Canyon alignment (Reach E), potentially suitable habitat in the Northern Reach in Riverside County (as identified in the Glenn Lukos Associates, Inc. 2008 report), and the drainage located south of the Corona Landfill (Reach H) potential adverse effects to LBV and SWWF will be reduced to less than significant levels with WMWD participation in the MSHCP as a Participating Special Entity (PSE) and payment of MSHCP mitigation fees. If WMWD does not participate in the MSHCP as a PSE, compliance with <b>MM Bio 3a</b> in Riverside County is required.</p>	<p>Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)</p>	<p>WMWD Regional Conservation Authority (RCA)</p>	<p>Compliance with RCA conditions and payment of fees to RCA.</p>			
	All Alternatives	<p><b>MM Bio 4a:</b> Should construction occur during the breeding season for the coastal California gnatcatcher (March 15 through September 15), a protocol-level survey shall be conducted prior to construction at Spring Brook wash (Reach B) and the Northern Reach (within Riverside County as identified in the Glenn Lukos Associates, Inc. 2008 report), in the vicinity of the proposed project; or presence can be assumed. Focused presence/absence surveys consist of either 1) six surveys conducted no less than one week apart between March 15 and June 30 or 2) nine surveys conducted no less than two weeks apart during the remainder of the year. Surveys must be conducted by a biologist who holds the appropriate Section 10(a)(1)(A) permit. Surveys in which the species is not detected are considered valid for one</p>	<p>Surveys can be conducted year-round. Number and duration varies by season.</p>	<p>WMWD and Contractor</p>	<p>Survey report. Section 7 permit, if required.</p>			

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		<p>year and should be repeated within one year of work commencing.</p> <p>If surveys document absence of CAGN no additional avoidance or minimization measures are required. If surveys document the presence of CAGN impacts to CAGN would be mitigated below the level of significance when occupied coastal sage scrub is fenced and direct impacts are avoided and construction within 500 feet of occupied habitat occurs only between September 1 and February 15 to avoid indirect impacts to nesting CAGN. If avoidance is not feasible, a temporary noise barrier shall be used during construction, at the appropriate location(s), in coordination with CDFG and the USFWS. The noise barrier shall attenuate noise levels to 60 dBA or less at the edge of breeding habitat. Additional or alternative measures to avoid or minimize adverse project effects to CAGN, as identified by the USFWS in Section 7 Consultation, shall be implemented. However, if all avoidance measures cannot be implemented such that “take” of LBV and SWWF is avoided. Take Authorization from USFWS through Final Biological Opinion and Incidental Take Statement and from CDFG through issuance of a CESA ITP or compliance with Fish and Game Code Section 2080.1, will be obtained.</p>						
	All Alternatives	<p><b>MM Bio 4b:</b> For the Spring Brook wash crossing (Reach B) and Northern Reach of the project alignment in Riverside County potential adverse effects to CAGN will be reduced to less than significant levels with WMWD participation in the MSHCP as a PSE and payment of MSHCP mitigation fees. If WMWD does not participate in the MSHCP as a PSE, compliance with <b>MM Bio 4a</b> in Riverside County is required.</p>	Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD Regional Conservation Authority (RCA)	Compliance with RCA conditions and payment of fees to RCA.			
	All Alternatives	<p><b>MM Bio 5:</b> In addition to the use of the temporary noise barrier, a qualified on site noise monitor (approved by the local jurisdiction and WMWD) shall be present during all construction activities conducted near habitat that has been identified in the surveys to host the arroyo toad, least Bell’s vireo, southwestern willow flycatcher, or coastal California gnatcatcher. The noise monitor shall ensure through on site noise meter readings that the temporary barriers are effective at reducing construction noise to 60 dBA or less. If 60 dBA is exceeded, the noise monitor shall work with the Contractor to make adjustments in the barriers or construction activities to reduce noise to 60 dBA or less.</p>	During construction	Local jurisdiction and WMWD	Survey report. Section 7 permit, if required. Construction drawing specifications			
	All Alternatives	<p><b>MM Bio 6:</b> Construction staging areas shall be located outside of riparian areas and away from (to the greatest distance feasible) riparian areas.</p>	Prior to construction	WMWD and Contractor construction manager	Location of staging areas provided on construction plans for review by WMWD.			

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	All Alternatives	<b>MM Bio 7:</b> Construction activities adjacent to riparian and/or wetland areas shall be minimized where feasible. If open cut trenching is used in the Spring Brook drainage crossings or Central Reach instead of boring, direct loss of wetlands may occur and permits and mitigation will be required. Such mitigation may include restoration on site, removal of invasive species, or off-site purchase. See <b>MM Bio 8</b> , below.	During construction	Project biologist	Survey report. Section 7 permit, if required. Construction drawing specifications.			
	All Alternatives	<b>MM Bio 8:</b> A formal jurisdictional delineation for potential State and Federal wetland impacts will be conducted at Reaches A and B or the Northern Reach.	Pre-construction	WMWD and Army Corp of Engineers, CDFG	Issuance of Section 404 Permit and/or 1602 Streambed Alteration Agreement, as applicable.			
	All Alternatives	<b>MM Bio 9:</b> A project-wide 1602 Streambed Alteration Agreement prepared in accordance with CDFG requirements shall be secured by WMWD as the jurisdictional delineation warrants and shall include mitigation measures that are sufficient to reduce direct and indirect impacts to riparian habitat to a level below significant. The Agreement may include some or all of the following: <ul style="list-style-type: none"> <li>• Avoid impacts where possible by shifting the project location or construction timing;</li> <li>• Minimize impacts.</li> <li>• Remove invasive species.</li> <li>• Purchase off-site habitat credits.</li> <li>• Create and/or restore natural communities and prepare a monitoring and maintenance plan for these areas.</li> <li>• Avoid sensitive habitats by placing construction staging areas as far away from them as is feasible.</li> <li>• Limit construction activity to daylight hours to minimize potential impacts related to artificial lighting.</li> <li>• Require the presence of a qualified biological monitor during all construction activities that are within or near sensitive habitats and areas that have been identified to host the arroyo toad, least Bell's vireo, southwestern willow flycatcher, coastal California gnatcatcher, Stephens' kangaroo rat or San Bernardino kangaroo rat.</li> </ul>	Pre-construction	WMWD	1602 Streambed Alteration Agreement.			
	All Alternatives	<b>MM Bio 10:</b> An ACOE Section 404 permit shall be secured as the jurisdictional delineation warrants. The Nation-wide Section 404 Permit will apply to the project for linear utility projects. The Corps may require the implementation of measures similar to those listed for the Section 1602 Streambed Alteration Agreement as part of the Section 404 Permit approval process. Implementation of these measures will mitigate potential impacts to the bed and banks of the Santa Ana River and any other jurisdictional drainage. (Applicable to 2005 Project Alignment, only) Should open-trenching techniques be utilized to	Pre-construction	WMWD and Army Corp of Engineers	Issuance of Section 404 Permit.			

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		install the pipeline across the Santa Ana River, consultation with the U.S. Fish and Wildlife Service will be initiated to determine whether or not the proposed project would result in significant impacts to Critical Habitat for the Santa Ana sucker. If warranted incidental take permits (through Section 7) shall be applied for. The U.S. Fish and Wildlife Service shall identify further measures to be taken to avoid or minimize adverse project effects to the protected species and their habitat.						
	All Alternatives	<b>MM Bio 11:</b> In conjunction with the ACOE Section 404 Permit, a Section 401 Water Quality Certification from the California Regional Water Quality Control Board shall be secured.	Pre-construction	WMWD and Regional Water Quality Control Board	Issuance of Section 401 Water Quality Certification.			
	All Alternatives	<b>MM Bio 12:</b> Any discharge into navigable waters, or “waters of the United States” shall also comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Clean Water Act. Compliance with these provisions shall result in certification from the Regional Board that verifies that the project complies with all water quality standards.	During Construction and Operation	WMWD and local jurisdiction	Certification from Regional Board.			
		See <b>MM Water Qual 1</b> in Section 4.11, which replaces <b>MM Bio 13</b> from the 2005 PEIR.						
	All Alternatives	<b>MM Bio 14:</b> If WMWD does not participate in the MSHCP as a PSE and should open-trenching techniques be utilized to install the pipeline across the Santa Ana River, a protocol-level survey shall be conducted at the Santa Ana River (Reach A or Central Reach), to determine presence/absence of the Santa Ana River woolly-star, slender-horned spineflower, Chaparral sand-verbena, Parry’s spineflower, Robinson’s pepper-grass, smooth tarplant, prairie wedge grass, and /or California satintail, within suitable habitat in the construction footprint. If one or more of these plant species are found to be present in the footprint, incidental take permits (through Section 7) shall be applied for. The survey reports shall identify further measures to be taken to avoid or minimize adverse project effects to the protected species and their habitat. If WMWD does participate in the MSHCP as a PSE, a focused Narrow Endemic Plant Species Survey Area (NEPSSA) survey shall be conducted within suitable habitat in the project alignments (Central and Northern Reach and Reach H, La Sierra Pipeline, and Clay Street Connection).	Surveys may be conducted at various times. Prior to Section 7 Consultation take permit Or Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD and USBR and Regional Conservation Authority (RCA), if applicable	Survey reports. Section 7 permit, if required, or Compliance with RCA conditions and payment of fees to RCA. Construction drawing specifications.			
	Realignment Alternatives	<b>MM Bio 15:</b> In San Bernardino County focused surveys shall be conducted within potentially suitable habitat for Chaparral sand-verbena, Parry’s spineflower, Robinson’s pepper-grass, and smooth tarplant within the central reach and for Parry’s spineflower, Robinson’s pepper-grass, and smooth tarplant within the Northern Reach (as identified in	Surveys during flowering season. Prior to construction of the Northern Reach where potential habitat exists.	WMWD Project biologist	Report. WMWD implements mitigation, if required.			

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		the Glenn Lukos Associates, Inc. 2008 report) by a qualified biologist during the flowering season of these species and prior to construction activities. If special status plant species are found to be present in the footprint, further measures as recommended by a qualified biologist shall to be taken to avoid or minimize adverse project effects to these species and their habitat.						
	Realignment Alternatives	<b>MM Bio 16a:</b> In San Bernardino County focused surveys shall be conducted within potentially suitable habitat for northwestern San Diego pocket mouse and Los Angeles pocket mouse in the Northern Reach (as identified in the Glenn Lukos Associates, Inc. 2008 report) by a qualified biologist during the appropriate season of these species and prior to construction activities. If these species are found to be present in the footprint, occupied habitat shall be fenced and avoided. If occupied habitat cannot be avoided further measures as recommended by a qualified biologist and in consultation with the California Department of Fish and Game shall to be taken to avoid or minimize adverse project effects to these species and their habitat.	Survey seasons vary, generally May 1 to September 15. Prior to construction of the Central and Northern Reaches where potential habitat exists.	WMWD's project biologist CDFG	Report. WMWD implements mitigation, if required.			
	Realignment Alternatives	<b>MM Bio 16b:</b> In Riverside County potential adverse effects to northwestern San Diego pocket mouse and Los Angeles pocket mouse in the Northern and Central Reaches (as identified in the Glenn Lukos Associates, Inc. 2008 report) will be reduced to less than significant levels with WMWD participation in the MSHCP as a PSE and payment of MSHCP mitigation fees. If WMWD does not participate in the MSHCP as a PSE, compliance with <b>MM Bio 16a</b> within Riverside County is required.	Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD RCA	Compliance with RCA conditions and payment of fees to RCA.			
	Realignment Alternatives	<b>MM Bio 17:</b> If WMWD does not participate in the MSHCP as a PSE a pre-construction presence/absence surveys for western burrowing owl (BUOW) shall be conducted in suitable habitat along the Northern and Central Reaches and Monroe Alternative (as identified in the Glenn Lukos Associates, Inc. 2008 report). Surveys shall be conducted within 30 days prior to disturbance and in accordance with the California Department of Fish and Game and California Burrowing Owl Consortium guidelines. Take of active nests shall be avoided. Passive exclusion (use of one way doors and collapse of burrows) will occur if owls are present outside of the nesting season. (The nesting season is February 1 through August 31). If WMWD does participate in the MSHCP as a PSE, a focused survey for burrowing owl following current survey protocol (approved by RCA) shall be conducted in suitable habitat along the Northern and Central Reaches and Monroe Alternative (as identified in the Glenn Lukos	Within 30-days of construction Or Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD and Project biologist RCA, if applicable	Survey report. WMWD implements mitigation, if required. Compliance with RCA conditions and payment of fees to RCA, if applicable.			

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		Associates, Inc. 2008 report).						
	Preferred Alternative Only	<b>MM Bio 18:</b> To offset the loss of burrowing owl foraging and burrow habitat from construction of the Mockingbird Tank and Clay Street Pump Station, a minimum of 6.5 acres of foraging habitat per pair or unpaired resident bird, shall be acquired and permanently protected if WMWD does not participate in the MSHCP as a PSE. The protected lands shall be adjacent to occupied burrowing owl habitat and at a location acceptable to CDFG. The project sponsor shall provide funding for long-term management and monitoring of the protected lands. The monitoring plan shall include success criteria, remedial measures, and an annual report to CDFG. Acquisition and protection of mitigation property shall be conducted in accordance with the CDFG Staff Report on Burrowing Owl Mitigation, October 17, 1995 and/or consultation with CDFG. If WMWD does participate in the MSHCP as a PSE, to offset the loss of occupied burrowing owl habitat conservation of habitat shall be provided in accordance with Species Accounts, Burrowing Owl Objective 5 and payment of MSHCP mitigation fees.	Pre-construction Or Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD with CDFG  RCA, if applicable	Proof of acquisition. Compliance with RCA conditions and payment of fees to RCA, if applicable.			
	Realignment Alternatives	<b>MM Bio 19:</b> In San Bernardino County within potentially suitable habitat in the Northern Reach (as identified in the Glenn Lukos Associates, Inc. 2008 report), presence of this species can be assumed or focused coastal California gnatcatcher (CAGN) surveys are required following United States Fish and Wildlife (USFWS) protocol. Focused presence/absence surveys consist of either 1) six surveys conducted no less than one week apart between March 15 and June 30 or 2) nine surveys conducted no less than two weeks apart during the remainder of the year. Surveys must be conducted by a biologist who holds the appropriate Section 10(a)(1)(A) permit. Surveys in which the species is not detected are considered valid for one year and should be repeated within one year of work commencing.  If surveys document absence of CAGN no additional avoidance or minimization measures are required. If surveys document the presence of California gnatcatchers (CAGN) impacts to CAGN would be mitigated below the level of significance when occupied coastal sage scrub is fenced and direct impacts are avoided and construction within 500 feet of occupied habitat occurs only between September 1 and February 15 to avoid indirect impacts to nesting CAGN. If avoidance is not feasible additional measures to avoid or minimize adverse project effects to CAGN, as identified by the USFWS in Section 7	Pre-construction in the Northern Reach	WMWD Project biologist	Report. WMWD implements mitigation, if required.			

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		Consultation, shall be implemented.						
	Realignment Alternatives	<p><b>MM Bio 20a:</b> In San Bernardino County within potentially suitable habitat for Delhi sands flower-loving fly (DSF) in the northern reach of the project alignment (as identified in the Glenn Lukos Associates, Inc. 2008 report) focused surveys shall be conducted following USFWS protocol by a qualified biologist who holds the appropriate Section 10(a)(1)(A) permit. Presence/absence surveys consist of bi-weekly surveys from August 1 to September 20 for a two-year period within areas of suitable habitat. If surveys document the presence of DSF impacts to DSF would be mitigated below the level of significance when occupied habitat is fenced and direct impacts are avoided. If avoidance is not feasible additional measures to avoid or minimize adverse project effects to DSF and their habitat, as identified by the USFWS in Section 7 Consultation, shall be implemented.</p> <p>The additional measures may include, but not be limited to, some or all of the following:</p> <ul style="list-style-type: none"> <li>• Avoid impacts where possible by shifting the project location or construction timing.</li> <li>• Maintain construction sites in sanitary conditions at all times.</li> <li>• Avoid sensitive habitats by placing construction staging areas as far away from them as is feasible.</li> <li>• Place extracted, surplus, suitable Delhi sands in current DSF conservation areas/banks.</li> <li>• Harvest sands and provide to a habitat bank established for the DSF.</li> </ul>	Pre-construction within the Northern Reach	WMWD USFWS Project biologist	Report. Result of Section 7 consultation.			
	Realignment Alternatives	<p><b>MM Bio 20b:</b> For the northern reach of the project alignment in Riverside County potential adverse effects to DSF will be reduced to less than significant levels with WMWD participation in the MSHCP (including compliance with Species Accounts, Delhi Sands flower-loving fly Objective 1B) as a PSE and payment of MSHCP mitigation fees. If WMWD does not participate in the MSHCP as a PSE, compliance with <b>MM Bio 20a</b> is required.</p>	Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD Regional Conservation Authority (RCA)	Compliance with RCA conditions and payment of fees to RCA.			
	Realignment Alternatives	<p><b>MM Bio 21a:</b> In San Bernardino County within potentially suitable habitat for the Santa Ana sucker (SAS) in the Central and Northern Reach of the project alignment (as identified in the Glenn Lukos Associates, Inc. 2008 report) focused surveys shall be conducted following USFWS protocol by a qualified biologist who holds the appropriate Section 10(a)(1)(A) permit. Focused surveys for SAS shall also include presence/absence of arroyo chub and Santa Ana speckled dace. If surveys document the</p>	Pre-construction within the Northern Reach	WMWD USFWS Project biologist	Report. Result of Section 7 consultation.			

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		<p>presence of SAS impacts to SAS would be mitigated below the level of significance when occupied habitat is fenced and direct impacts are avoided and Best Management Practices ensure that no change in water quality will occur during or after construction. If surveys document absence of SAS, arroyo chub, and Santa Ana speckled dace no additional avoidance or minimization measures are required. If avoidance is not feasible additional measures to avoid or minimize adverse project effects to SAS and their habitat, as identified by the USFWS in Section 7 Consultation, shall be implemented. The additional measures may include, but not be limited to, some or all of the following:</p> <ul style="list-style-type: none"> <li>• Avoid sensitive habitats by placing construction staging areas as far away from them as is feasible.</li> <li>• Avoid impacts where possible by shifting the project location or construction timing.</li> <li>• Construction sites should be maintained in sanitary conditions at all times.</li> <li>• Implementation of the mitigation measures for SAS would be expected to reduce potentially significant impacts to arroyo chub and Santa Ana speckled dace below a level of significance.</li> </ul>						
	Realignment Alternatives	<p><b>MM Bio 21b:</b> For the Central and Northern Reaches of the project alignment in Riverside County, potential adverse effects to SAS will be reduced to less than significant levels with WMWD participation in the MSHCP as a PSE and payment of MSHCP mitigation fees. If WMWD does not participate in the MSHCP as a PSE, compliance with <b>MM Bio 21a</b> is required.</p>	Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD Regional Conservation Authority (RCA)	Compliance with RCA conditions and payment of fees to RCA.			
	All Alternatives	<p><b>MM Bio 22:</b> The removal of potential nesting vegetation of sensitive bird species will be conducted outside of the nesting season (February 1 to August 31) to the extent that this is feasible. If vegetation must be removed during the nesting season, a qualified biologist will conduct a nesting bird survey of potentially suitable nesting vegetation prior to removal. Surveys will be conducted no more than three (3) days prior to scheduled removals. If active nests are identified, the biologist will establish buffers around the vegetation containing the active nest (500 feet for raptors and 200 feet for non raptors). The vegetation containing the active nest will not be removed, and no grading will occur within the established buffer, until a qualified biologist has determined that the nest is no longer active (i.e., the juveniles are surviving independent from the nest). If clearing is not conducted within three days of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.</p>	Pre-construction if vegetation clearing occurs February 1 to August 31.	WMWD Project biologist	Report. WMWD implements mitigation, if required.			
	Preferred Alternative	<b>MM Bio 23:</b> Temporary impacts from construction	Pre-construction	WMWD	Proof of payment of SKR conservation			

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		activities and permanent impacts from development of the Mockingbird Tank site on occupied Stephens' kangaroo rat habitat will be mitigated through payment of the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) Mitigation Fees.			fees or acquisition of habitat as agreed upon by USFWS.			
	Preferred Alternative	<b>MM Bio 24:</b> Section 7 Consultation with USFWS or participation in the MSHCP as a Participating Special Entity (PSE) shall be completed for temporary impacts (both direct and indirect) from construction activities and permanent impacts from development of the Mockingbird Tank site on occupied California gnatcatcher habitat. Mitigation for the loss of occupied habitat will be achieved by acquisition of replacement habitat at a 1:1 ratio that is biologically equivalent to the property being disturbed, as agreed upon by USFWS or compliance with the MSHCP and payment of MSHCP mitigation fees.	Pre-construction Or Prior to impacts to Covered Species and their Habitats (Pursuant to Section 6.1.6 of the MSHCP)	WMWD RCA, if applicable	Proof of Section 7 consultation for gnatcatcher and acquisition of habitat as agreed upon by USFWS. Compliance with RCA conditions and payment of fees to RCA, if applicable.			
	All Alternatives	<b>MM Bio 25:</b> Should jack and bore (also known as horizontal directional drilling) techniques be utilized to install the pipeline under CDFG or U.S. Army Corps of Engineers jurisdictional waterways (such as the Santa Ana River), a Frac-Out Contingency Plan (included in Appendix D – Biological Resources of the SEIR/EIS) shall be implemented by the contractor for the duration of drilling activities.	Prior to construction when directional drilling is used under jurisdictional waterways.  During construction if frac-out occurs.	Contractor/WMWD/ Biologist	Contractor shall provide proof to WMWD that pre-construction requirements have been met.  Consult/report w/CDFG if frac-out occurs.			
Cultural Resources / Paleontology	All Alternatives	<b>MM Cult 1:</b> (CULT-3) In order to reduce potential significant impacts to historic and non-Native American archaeological and historic resources, full-time archaeological monitoring during excavations shall be conducted in sensitive areas (e.g., near the Santa Ana River crossing, Mockingbird Canyon and La Sierra), within undeveloped areas along the project alignment, near Riverside Highland Water facility site thought to be in the vicinity of Barton Road (north of Palm Avenue), at the Gage Canal crossing in the cities of Riverside and Grand Terrace, at the Railroad crossings (AT&SF Railroad Alignment and Southern Pacific Railroad), the Riverside Canal, at Victoria Avenue and Irving Street. The extent and duration of the archaeological monitoring shall be determined by a Secretary of the Interior qualified archaeologist who is also qualified by Riverside County or the San Bernardino Archaeological Information Center (SBAIC) located at the San Bernardino County Museum, as appropriate to the location of the portion of the Project to be under construction, once the construction schedule is defined for each reach of project construction. In the event of an accidental discovery, the archaeological monitor will comply with State <i>CEQA Guidelines</i> Section 15064.5.	If during construction resources are discovered.	Qualified Archaeological Monitor	On-site monitoring. Monitoring report shall be submitted to WMWD.			
	All Alternatives	<b>MM Cult 1a:</b> (CULT-1) If non-Native American archaeological or historic resources are discovered,	During Grading and/or Construction	Contractor construction manager	On-site monitoring. Archaeological Surveys shall be			

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		<p>the local jurisdiction and land owner where the resources are found will be notified by WMWD. Depending on the nature of the resource, appropriate mitigation and monitoring will be developed by WMWD in conjunction with all affected parties and the on-site archaeologist, and may include such things as:</p> <ul style="list-style-type: none"> <li>• Documentation, removal, and curation at a local museum, federal repository or other appropriate steward agency.</li> <li>• Documentation and retention in place.</li> <li>• Further detailed archaeological studies to determine the nature and extent of the find.</li> <li>• Retention by the land owner.</li> <li>• Other measures agreed upon by the parties involved.</li> </ul>		Qualified Archaeological Monitor	submitted to WMWD, if appropriate.			
	All Alternatives	<p><b>MM Cult 2:</b> (CULT-3) In response to comments from local tribes and to be sensitive to the cultural heritage of the tribes that have claimed an interest in the project area, the archaeological monitoring program shall be executed in conjunction with the tribes. As part of the preparation of the archaeological monitoring program, the interested tribes shall assist in determining which areas of the project alignment where undisturbed soils will be excavated should be considered to be Sensitive Areas requiring monitoring. For the purposes of this mitigation measure, “undisturbed soils” shall mean: soil which has never been previously excavated or disturbed for construction or other purposes, and soil that was previously excavated but for which no archaeological or Native American monitoring was performed. “Sensitive Areas” include, at a minimum: the Santa Ana River (San Bernardino County) Springbrook Wash (Riverside County and City) crossings, a natural area near Irving and Firethorn Streets (Mockingbird Canyon area) in the City of Riverside, and the La Sierra area. Prior to grading, WMWD shall enter into a Treatment and Monitoring Agreement for one paid monitor for each reach of project construction with the culturally affiliated tribe, as determined by WMWD.</p> <p>WMWD may seek the assistance of the Native American Heritage Commission (NAHC) in making the determination of cultural affiliation. To respond to the expressed desire of each tribe to monitor construction in sensitive areas and in the spirit of interagency cooperation, the Pechanga, Ramona, and San Manuel shall be notified by WMWD, prior to excavation activities.</p>	If during construction resources are discovered.	WMWD, archaeologist, land owner, and local jurisdiction.	Archaeologist’s report on monitoring activity. Documentation of resources, if required.			
	All Alternatives	<b>MM Cult 2a:</b> Additional tribes responded during the archaeological surveys performed for the Realignment	Prior to Grading	WMWD	Notification of Construction in Culturally Sensitive Areas shall be			

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		<p>Alternatives. To respond to the expressed desire of these additional tribes to monitor construction in sensitive areas and/or be consulted if finds are made, and in the spirit of interagency cooperation, the Morongo Band of Mission Indians, Soboba Band of Luiseno Indians and Gabrieleno/Tongva San Gabriel Band of Mission Indians shall be notified by WMWD, prior to excavation activities.</p>			<p>submitted Native American tribes.</p>			
	<p>All Alternatives</p>	<p><b>MM Cult 3:</b> (CULT-1) To ensure the proper disposition of cultural resources of interest to the tribes uncovered during excavation for the installation of the RCF Project, WMWD shall seek input from the tribes to develop a Discovery Plan for such dispersal that encompasses the tribes' desired treatment and disposition of Native American cultural resources, including human remains. After considering the tribes' input and recommendations, WMWD shall approve and finalize such a plan prior to grading. In the alternative, WMWD may choose to negotiate treatment and disposition within the Treatment Agreements entered into with the culturally affiliated appropriate tribe for each reach of construction. WMWD shall follow either the Discovery Plan or the Treatment Agreement for resources found on WMWD lands. Further, WMWD shall agree to present the plan and encourage land owners to follow the plan if cultural resources of interest to the tribes are found on land not owned by WMWD. In all cases, the actions of WMWD in its treatment of accidentally-discovered cultural resources shall be consistent with the requirements of CEQA Guidelines section 15064.5, the provisions of the Public Resources Code, and any other applicable state or federal law.</p>	<p>Prior to grading of the first phase of project construction.</p>	<p>WMWD after consultation with the tribal representatives.</p>	<p>Cultural Resources Disposition and Treatment Plan.</p>			
	<p>All Alternatives</p>	<p><b>MM Cult 4:</b> If fossils are identified during excavation, a qualified paleontologist shall be contacted and permitted to recover and evaluate the find(s) in accordance with current standards and guidelines.</p>	<p>During Grading and/or Construction</p>	<p>Contractor construction manager Qualified Paleontological Monitor</p>	<p>Paleontological monitoring report shall be submitted to WMWD</p>			
	<p>All Alternatives</p>	<p><b>MM Cult 4a:</b> Prior to site grading, a pre-grading meeting between a qualified paleontologist and the excavation and grading contractor shall be held to outline the procedures to be followed when buried materials of potentially significant paleontological resources have been inadvertently discovered during earth-moving operations. Should construction/development activities uncover paleontological resources, work shall be moved to other parts of the project site and a qualified paleontologist shall be contacted to determine the significance of these resources. If the find is determined to be significant, temporary avoidance or other appropriate measures shall be implemented.</p>	<p>Prior to Grading</p>	<p>Contractor construction manager Qualified Paleontological Monitor</p>	<p>Paleontological monitoring report shall be submitted to WMWD and the museum repository.</p>			

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		Appropriate measures would include that a qualified paleontologist be permitted to recover and evaluate the find(s) in accordance with current standards and guidelines. Any significant fossil remains recovered in the field shall be prepared, identified, catalogued, curated, and accessioned into the fossil collections of the San Bernardino County Museum, or another museum repository complying with the Society of Vertebrate Paleontology standard guidelines; and the qualified paleontologist or qualified designee shall prepare a final report presenting an inventory and describing the scientific significance of any fossil remains accessioned into the museum repository. The report shall comply with the Society of Vertebrate Paleontology standard guidelines for assessing and mitigating impacts on paleontological resources and shall be submitted to Western Municipal Water District and the museum repository.						
	All Alternatives	<b>MM Cult 5:</b> (CULT-2) If human remains are uncovered at any time, all activities in the area of the find shall be halted by WMWD or its contractor and the County Coroner shall be notified immediately pursuant to CA Health & Safety Code Section 7050.5 and CA PRC Section 5097.98. If the Coroner determines that the remains are of Native American origin, the Native American Heritage Commission (NAHC) shall be notified by the Coroner. The NAHC will determine and notify the Most Likely Descendent (MLD). The MLD shall be allowed to inspect the site of the discovery. The MLD shall complete the inspection and make recommendations for treatment within 48 hours of notification by the NAHC.	During Grading and/or Construction	Contractor construction manager Riverside County Coroner	Implementation of CA Health & Safety Code Section 7050.5 and CA PRC Section 5097.98; and if the Coroner determines that the remains are of Native American origin, Section 15064.5(e) of the CEQA guidelines.			
	All Alternatives	<b>MM Cult 5a:</b> If a sacred site is encountered within the project alignment, WMWD will work with the tribes to avoid the site, if feasible.	If during construction resources are discovered.	WMWD, archaeologist, tribal monitor, land owner, and local jurisdiction.	Archaeologist's report on monitoring activity. Documentation of resources, if required. Revision to project if feasible.			
	All Alternatives	<b>MM Cult 6:</b> Plants and trees removed or damaged by the proposed project shall be replaced pursuant to the standards and requirements of each jurisdiction within which the loss or damage occurs.	Encroachment permit or other approved by affected agency. Installation no later than 30 days after.	WMWD Local affected agency approving and inspecting project.	Approved plans and final site inspection.			
	All Alternatives	<b>MM Cult 7:</b> The location of all existing mature trees, palms and other landscaping shall be noted on the construction drawings that will be prepared for this project to facilitate review and proper permitting by the affected jurisdiction. Generally, a mature wood tree is considered to have a diameter of 8-10 inches or more at 4 ½ feet off the ground. A palm tree is considered to be mature at 25 feet or more in height. Citrus trees are mature when commercial levels of fruit-bearing occur at about 5 to 7 years.	Plan preparation	WMWD	Plan approval by WMWD.			
	All Alternatives	<b>MM Cult 8:</b> If construction activities that require	Prior to construction plan	WMWD	Arborist to present WMWD with			

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		digging are located closer than eight feet from a mature palm (over 25 feet in height), a certified arborist shall evaluate the specific palm(s) to determine if the palm can remain in place, be relocated successfully, or if project redesign may be warranted. If the palm must be removed, replacement shall be pursuant to the requirements of the jurisdiction within which the palm(s) is/are located.	completion and as early in the design process as possible.		findings report to be incorporated into project design and landscape plans.			
	All Alternatives	<b>MM Cult 9:</b> If construction activities that require digging are located closer than thirty feet from the drip line of a mature wood tree, a certified arborist shall evaluate the specific tree(s). The arborist will recommend the course of action most likely to preserve the tree including but not limited to trimming to help with stability, no action and the tree remains in place as is, project redesign, or the means to achieve a successful relocation. If the tree must be removed, replacement shall be commensurate with the size and age of the tree being removed, pursuant to the requirements of the jurisdiction within which the tree(s) is/are located, and in no case shall replacement trees be less than 24-inch box size trees.	Prior to construction plan completion and as early in the design process as possible.	WMWD	Arborist to present WMWD with findings report to be incorporated into project design and landscape plans.			
	Realignment Alternative (Monroe Route Only)	<b>MM Cult 10:</b> In order to reduce impacts to historical resources along the Monroe Alternative route, jack-and-bore tunneling or a similar technique that does not impact a surface feature shall be used instead of traditional trenching techniques. This would protect impacts to features such as the Riverside Upper Canal (CA-RIV-4495H), Riverside Lower Canal (CA-RIV-4791H), RCF-6, and RCF-7.	During Grading and/or Construction	Contractor construction manager	Construction plans and specifications reviewed by WMWD.			
	Preferred Alternatives Only	<b>MM Cult 11:</b> In order to reduce impacts to historical resources associated with the Realignment Alternative with Additional Connections, new wells constructed as part of the Central Feeder Connection, shall be not be placed within the footprint of the historic house foundation site located on the southwest corner of the intersection of Nevada Street and San Bernardino Avenue or within the footprint of the Old Crown Jewel packinghouse site (Packing House Christian Academy) located on the southwest corner of the intersection of Alabama Street and San Bernardino Avenue.	Prior to construction plan review.	WMWD and project archaeologist	Approval of construction documents.			
	Realignment Alternative (Monroe Route Only)	<b>MM Cult 12:</b> (Applies to the Monroe Street alignment, only.) Prior to construction and if the Monroe Street Alternative route is for the Central Reach is selected, P-33-17542 and P-22-17543 must be evaluated for NRHP or CRHR eligibility and the appropriate mitigation measures developed and implemented, if needed. Mitigation measures could include such things as: • avoidance,	Pre-Construction	WMWD and project archaeologist	Survey and modified construction plans, if required.			

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		<ul style="list-style-type: none"> <li>modified construction techniques, or</li> <li>documentation and removal.</li> </ul>						
	All Alternatives	<b>MM Cult 13:</b> If the local jurisdiction where mature trees and landscaping are being removed does not have standards or tree replacement requirements, WMWD shall install 15-gallon trees or larger at a 1:1 replacement ratio and other landscaping similar to what was removed or damaged.	Encroachment permit or other approved by affected agency. Installation no later than 30 days after.	WMWD Local affected agency approving and inspecting project.	Approved plans and final site inspection.			
Energy	Preferred Alternative Only	<b>MM Energy 1:</b> Hydroelectric generating stations shall be constructed as part of the Mockingbird and Clay Street Connections pump station facilities.	Prior to plan approval	WMWD and Project Engineer	Review by WMWD to see that included on plans, if feasible.			
Groundwater Levels	All Alternatives	<b>MM GWL 2 (Revised):</b> To assure that ongoing management of the RCF is coordinated with management of the Basin Area as a whole, monitoring and adaptive management shall be employed. The RCF operations management plan will be developed and tested using the groundwater modeling employed by the Basin Area TAC (or its successor or assignee) on an annual basis. The groundwater flow and groundwater model(s) shall be used to predict the effects of project operations on the safe yield of the Basin Area. If the model(s) suggest that the replenishment and pumping regime of the proposed project operation would result in a water level reduction of greater than 10 feet, the project operation shall be modified to reduce impacts to less than significant levels.	On-going	WMWD	Annual report to the TAC for the San Bernardino Groundwater Basin.			
Groundwater Levels	All Alternatives	<b>MM GWL 3:</b> WMWD and the City of Riverside, within one year of certification of the EIR by the WMWD Board of Directors, shall enter into a Engineering and Operation Agreement that will facilitate annual review of volumes of water to be recharged, stored and/or extracted from the San Bernardino Basin Area (SBBA) by WMWD in as part of the Project to ensure consistency with the conjunctive use rules developed by the SBBA Basin Technical Advisory Committee, or govern conjunctive use operations in the absence of BTAC-developed rules. The Engineering and Operation Agreement shall develop and implement procedures intended to minimize groundwater level impacts at certain specified Riverside wells and determine water storage and extraction targets for the Project. To accomplish those purposes, the Engineering and Operation Agreement shall address the following areas: <ul style="list-style-type: none"> <li>Proposed water extractions of previously stored water and the consequent changes in groundwater levels at key wells;</li> <li>The length of time that water will be stored within the SBBA before WMWD extracts the water; and</li> </ul>	On-going	WMWD	Engineering and Operation Agreement			

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		<ul style="list-style-type: none"> <li>Methodology for accounting of water loss of water stored by WMWD in the basin, including but not limited to the determination of when water is no longer stored within the SBBA because of outflow from that basin, a loss corresponding to the amount of water lost to evaporation if recharge occurs in a spreading basin, and annual loss corresponding to the amount of water that flows out of the SBBA on the surface and below the surface (outflow).</li> <li>Remedy if WMWD extracts water in excess of the agreed-upon limits set forth in the Engineering and Operation Agreement or in excess of what is stored in the SBBA.</li> </ul>						
Groundwater Quality	All Alternatives	<p><b>MM GWQ 2 (Revised):</b> To assure that ongoing management of the RCF is coordinated with management of the Basin Area as a whole, monitoring and adaptive management shall be employed.</p> <p><b>a)</b> The RCF operations management plan will be developed and tested using the groundwater modeling employed by the Basin Area TAC (or its successor or assignee) on an annual basis. Existing groundwater flow and groundwater quality model(s) shall be used to predict the effects of project operations on groundwater quality. The results of the modeling shall be presented to the BTAC. If the results indicate that the location of the pollution plumes will be shifted by project operations such that additional existing “clean” wells could become contaminated, WMWD shall modify planned operations to avoid the result or otherwise address the modeled situation to the satisfaction of the BTAC. Examples of operational modifications that could be used are provided in the following table.</p> <p><b>b)</b> When a new well is drilled, indicator wells in the vicinity that could be affected by Project operation will be selected to become part of the annual operations management plan. If water quality testing at any indicator wells (which are already tested regularly) suggests that the replenishment and pumping regime of the proposed project operation is causing drinking water quality in a given well to become newly contaminated or to worsen due to the Project, production and/or spreading in the area(s) contributing to the contamination shall cease until</p>	On-going	WMWD	Annual report to the TAC for the San Bernardino Groundwater Basin.			

		a remedy is identified and implemented. Such remedies may include but not be limited to the following:																																							
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Hazards and Hazardous Waste / Materials	All Alternatives	<b>MM Haz 1:</b> Avoid sites and alternative alignments on or near environmentally contaminated property. If avoiding a particular site compromises physical engineering requirements, then the following mitigation measures shall be implemented to reduce environmental effects related to hazards as a result of the project to a level below significance.	Prior to project design	WMWD and Project Engineer	Report of current hazardous sites list provided to WMWD by project engineer.																																				
	All Alternatives	<b>MM Haz 2:</b> Check potential sites for listing on the most recent Hazardous Waste and Substances List	Prior to project design	WMWD and Project Engineer	Report of current hazardous sites list provided to WMWD by project																																				

		(List) provided by the San Bernardino County Division of Hazardous Materials and by the Riverside County Department of Environmental Health pursuant to Section 65962.5 of the Government Code. If a selected site is on the List, avoidance of that property will be the first consideration.			engineer.			
All Alternatives	<b>MM Haz 3 (HAZ-4):</b> If the selected future alignment traverses a site listed on the List and avoidance is not feasible or if there are other indications that a site could be contaminated (i.e., where pipeline alignment crosses railroad rights-of-way), a Phase I Environmental Site Assessment (ESA) will be prepared.	Prior to project design.	WMWD and Project Engineer	Phase I ESA report.				
All Alternatives	<b>MM Haz 4:</b> If the Phase I ESA identifies possible contamination on the pipeline alignment, then recommended subsurface investigation measures listed in the Phase I ESA will be implemented. Based on subsurface investigations characterizing subsurface contamination, remediation measures shall be implemented for the applicable site or an alternative alignment will be chosen.	After Phase I ESA complete and prior to project design.	WMWD and Project Engineer	Project plans for WMWD review and approval.				
All Alternatives	<b>MM Haz 5:</b> All environmental investigation and/or remediation shall be conducted under a Work plan approved by jurisdictional regulatory agencies overseeing hazardous waste cleanups. For the cities of Corona and Riverside, the local agencies are City of Corona Fire Department and City of Riverside Fire Department. For the Cities of San Bernardino, Colton and Grand Terrace, the enforcement agency is the County of San Bernardino Fire Department, Hazardous Materials Division. In the unincorporated Riverside County, the Department of Environmental Health administers a program for the purpose of monitoring establishments where hazardous waste is generated, stored, handled, disposed, treated, or recycled, and to regulate by the issuance of permits, the activities of establishments where hazardous waste is generated. For any jurisdiction that may not be or have access to a responsible party for this purpose, the California Department of Toxic Substances Control shall be used to provide oversight. (Draft SEIR/EIS, p. 4.8-25)	After Phase I ESA if avoidance is not possible.	WMWD and appropriate agency listed in <b>MM Haz 5</b>	Approved. Work plan.				
All Alternative	<b>MM Haz 5a:</b> All environmental investigation and/or remediation shall be conducted under a Work plan approved by jurisdictional regulatory agencies overseeing hazardous waste cleanups. For the city of Redlands, the local agency is City of Redlands Fire Department. For the city of Rialto and County of San Bernardino, the enforcement agency is the County of San Bernardino fire Department, Hazardous Materials Division. For any jurisdiction that may not be or have access to a responsible party for this purpose, the California Department of Toxic Substances Control shall be used to provide oversight.	After Phase I ESA if avoidance is not possible.	WMWD and appropriate agency listed in <b>MM Haz 5</b>	Approved. Work plan.				
All Alternatives	<b>MM Haz 6:</b> Prior to any excavation or soil removal	Prior to excavation if	Contractor and	Construction drawing specifications or				

		action on known contaminated sites, or if contaminated soil (i.e., soil with a visible sheen or detectable odor) is encountered, complete characterization of the soil will be conducted. Appropriate sampling shall be conducted prior to disposal of the excavated soil. If the soil is contaminated, it shall be properly disposed of it according to Land Disposal restrictions. If site remediation involves the removal of contamination, then contaminated material will need to be transported off-site to a licensed hazardous waste disposal facility. This may incrementally decrease the volume available at a hazardous waste disposal site or incrementally increase the emissions of a hazardous waste incinerator. These impacts are not considered significant. If the proposed project plans on importing soils to backfill the areas excavated, proper sampling shall be conducted to make sure that the imported soil is free of contamination.	contaminated soil known or encountered.	appropriate agency listed in <b>MM Haz 5</b>	work plan.			
All Alternatives	<b>MM Haz 7:</b> If during construction of the project, soil and/or groundwater contamination is suspected, construction in the area shall cease and appropriate Health and Safety measures shall be implemented. The project proponent shall contact the respective jurisdictional enforcement agency (see <b>MM Haz 5</b> ) to obtain the necessary information on appropriate measures and their implementation.	During construction, after Phase I ESA if avoidance is not possible.	WMWD and appropriate agency listed in <b>MM Haz 5</b>	Approved. Work plan.				
All Alternatives	<b>MM Haz 8:</b> If the selected future alignment traverses a site listed on the List and avoidance is not feasible or if there are other indications that a site could be contaminated (i.e., where pipeline alignment crosses railroad rights-of-way), an electronic “sniffer” capable of detecting actionable levels of hydrocarbons shall be employed during excavation activities in proximity to the previously referenced sites in lieu of preparing a Phase I Environmental Site Assessment (ESA) as required in <b>MM Haz 3</b> . Should actionable levels of contaminants be encountered, these materials shall be removed and disposed of in accordance with applicable regulations or pursuant to <b>MM Haz 4</b> through <b>MM Haz 7</b> .	During construction.	Contractor	WMWD review of construction specifications to include “sniffer” at key locations.				
All Alternatives	<b>MM Haz 9 (HAZ-1, 2 and 3):</b> To reduce potentially hazardous conditions and minimize the impacts from the handling of potentially hazardous materials, the following shall be included in WMWD construction specifications for all construction projects covered by this SEIR/EIS:  The contractor(s) shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor(s) shall store all reserve fuel supplies only within the confines of a designated construction staging area, and regularly inspect all construction equipment for leaks.  The contractor(s) shall prepare a Health and Safety	Plans prior to construction. Implemented during construction.	WMWD and Contractor	WMWD review of construction specifications, contractor to implement in the field.				

		Plan. The plan shall include measures to be taken in the event of an accidental spill. The construction staging area(s) shall be designed to contain contaminants such as oil, grease, and fuel products so that they do not drain towards receiving waters or storm drain inlets.						
	Realignment Alternatives	<b>MM Haz 10:</b> A minimum of 45 days prior to commencement of the Central Reach construction projects and a minimum of 45 days prior to commencement of the Clay Street Connection construction projects, the manager of the Riverside Municipal Airport shall be consulted in order to determine whether construction activities and construction equipment will encroach into the 100-to-1 imaginary surface surrounding the Riverside Municipal Airport. If it is determined that there will be an encroachment into the 100-to-1 imaginary surface, a minimum of 30 days before the date of the proposed construction, Western Municipal Water District shall file a FAA Form 7460-1, <i>Notice of Proposed Construction or Alteration</i> , for the construction activity. If FAA determines that the project would potentially be an obstruction unless reduced to a specified height, WMWD will work with FAA to resolve any adverse effects on aeronautical operations. These could include things as, but not limited to:  <ul style="list-style-type: none"> <li>• The use of construction equipment that is short enough to avoid encroachment into the imaginary surface;</li> <li>• Alternative construction methods to avoid the use of cranes or other tall equipment; or</li> <li>• Construction at night when the airport is closed.</li> </ul>	Minimum 45-days prior to construction of Central Reach and Clay Street Connection.	WMWD and Riverside Municipal Airport FAA	FAA certification of Form 7460-1, if applicable.			
	Realignment Alternatives	<b>MM Haz 11:</b> To avoid potential impacts resulting from temporary flight hazards within the Flabob Airport Influence Area, no construction equipment shall exceed 70 feet in height within the Northern Reach where it is located in Avalon Street south of the 60 Freeway, Mission Boulevard and Limonite Street.	During construction	Contractor	Construction equipment list provided to WMWD.			
Noise	All Alternatives	<b>MM Noise 1:</b> Based on the Acoustical Impact Analysis which shows that the 65 dBA Leq is slightly less than one-quarter mile from the pipeline alignment, a minimum of 30 days prior to commencement of construction projects for all reaches and facilities, Western Municipal Water District shall identify all noise-sensitive receptors (e.g., residential dwellings, hotels, hospitals, nursing homes, schools and libraries) located within one-quarter mile of the active construction area. If construction is planned to occur within one-quarter mile of a sensitive receptor, the hours of construction shall be limited to those that would cause the least noise disruption to the sensitive uses and in	Minimum 30-days prior to construction	WMWD or contractor	Proof of noticing to local jurisdiction within which project is located, may be a part of Traffic Control Plan, if appropriate.			

		<p>consultation with the local jurisdiction. Mitigation could include such approaches as:</p> <ul style="list-style-type: none"> <li>• Allowing nighttime construction in commercial/industrial areas or adjacent to schools which operate only during the day</li> <li>• Prohibiting nighttime construction in residential areas</li> <li>• Time of year construction, such as during a school holiday week</li> <li>• If more than one sensitive receptor that might warrant opposite approaches to hours of operation is affected by the same construction location, the hours of construction allowed by local jurisdictions regulations shall apply.</li> </ul> <p><b>MM Noise 1a:</b> For portions of the Project to be constructed within the city of Riverside, the need for traffic detours has been identified as a possibility for some locations. If it is determined, once a detailed project alignment is finalized with the City for each segment of construction pursuant to <b>MM Trans 3b</b>, that there is no other option but to detour a significant amount of traffic to a street along which sensitive receptors are located, additional noise impacts analysis shall be completed to identify site-specific mitigation measures that are appropriate to the location in question. Some such potential mitigation approaches are outlined in <b>MM Noise 1</b>; the mitigation determined feasible shall be included in the Traffic Control Plan which has to be approved by the City prior to its issuance of the Encroachment Permit.</p>	Prior to the issuance of an Encroachment Permit	WMWD	Traffic Control Plan			
	Preferred Alternative Only	<b>MM Noise 2:</b> Although blasting does not exceed any noise standards because its duration is so short, as a courtesy to adjacent residents, Western Municipal Water District or its designee shall notify residences within one-quarter (1/4) of a mile of any areas that will require blasting, as to the timing and duration of any potential blasting activities associated with the project site. Notification shall take place between a minimum of five (5) and a maximum of ten (10) working days prior to anticipated blasting activities.	Between 5 and 10 working days prior to blasting	WMWD or contractor	WMWD review construction specifications for requirement. Provide proof of noticing to local jurisdiction within which blasting is required.			
	All Alternatives	<b>MM Noise 3 (NOISE-2):</b> All equipment used during construction shall be muffled and maintained in good operating condition. All internal combustion engines shall be fitted with well maintained mufflers in accordance with manufactures' recommendations. Maintenance and equipment records shall be made available by WMWD upon request if local jurisdictions receive complaints. If records indicate that equipment does not meet the requirements of this measure, the equipment in question shall be services, retrofitted or replaced.	During construction	WMWD and Contractor	Maintenance and equipment records shall be made available by WMWD upon request if local jurisdictions receive complaints.			
	All Alternatives	<b>MM Noise 4 (NOISE-3):</b> The buildings housing pump stations shall be insulated and contain sound	Prior to building plan review	WMWD	Approval of building plans by WMWD.			

<p>Stormwater / Water Quality</p>	<p>All Alternatives</p>	<p>attenuation materials to meet local noise standards.</p> <p><b>MM Water Qual 1 (HYD-1):</b> WMWD shall require contractors to implement a program of best management practices (BMPs) and best available technologies to reduce potential impacts to water quality that may result from construction activities. To reduce or eliminate construction-related water quality impacts before the onset of construction activities, the construction agent(s) shall obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General construction permit. Construction activities shall comply with the conditions of this permit that include preparation of a stormwater pollution prevention plan (SWPPP), implementation of BMPs, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMPs shall be implemented to provide effective erosion and sediment control. These BMPs shall be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMPs to be implemented as part of this mitigation measure shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>a. Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover would be employed for disturbed areas to avoid water erosion. Stockpiled dirt could be covered, misted continuously, protected with three-sided temporary wind breaks or other means to avoid wind erosion.</li> <li>b. Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to the construction agent(s), local jurisdictions and the California Regional Water Quality Control Board, Santa Ana Region.</li> <li>c. Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events.</li> <li>d. No disturbed surfaces shall be left without wind and water erosion control measures in place between October 15 and April 15, and when the winds exceed 25 MPH. The construction agent(s) shall file a Notice of Intent with the Regional Board and require the preparation of a SWPPP prior to commencement of construction. The construction agent(s) shall routinely inspect the construction site to verify that the BMP's specified in the SWPPP are properly installed and maintained. The construction agent shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.</li> <li>e. Controls on construction site dewatering shall be implemented. If possible, water generated as part of construction dewatering shall be discharged onsite such that there would be no discharge to surface waters. If discharge to surface waters were</li> </ul>	<p>Prior to construction</p>	<p>Contractor</p>	<p>Proof of NPDES Permit provided to WMWD</p>			
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		unavoidable, the construction agent shall obtain coverage under the NPDES General Dewatering Permit prior to commencement of construction. The provisions of this permit are sufficiently protective of water quality to ensure that impacts to surface waters would remain below significance thresholds. During dewatering activities, all permit conditions shall be followed. The construction agent(s) shall routinely inspect the construction site to verify that the BMP's specified in the SWPPP are properly installed and maintained. The construction agent shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.						
Transportation and Traffic	All Alternatives	<b>MM Trans 1:</b> Bus stops and signs temporarily removed or closed by the proposed project shall be replaced and posted pursuant to the standards and requirements of the affected transit agency.	Prior to implementation of the Traffic Control and Safety Plan ( <b>MM Trans 2</b> ).	WMWD	Transit agency review and concurrence with Traffic Control and Safety Plan.			
	All Alternative	<b>MM Trans 1a:</b> WMWD shall coordinate the potential temporary closure of bus stops with the affected public transit agency (RTA and/or Omnitrans) to set up and comply with a collection and storage procedure that safeguards any bus stop furniture, such as bus shelters, passenger waiting benches, trash receptacles and bus stop signage, that must be removed prior to commencement of individual construction projects.	Prior to completion of Traffic Control Plan	WMWD and transit agency	Traffic Control Plan provided to local transit agency.			
	All Alternatives	<b>MM Trans 2:</b> (See also <b>MM Trans 2a</b> ) A Traffic Control and Safety Plan shall be prepared for each reach of construction. WMWD shall coordinate with affected transit agencies, schools, fire stations, and other affected local jurisdictions on the preparation of each Traffic Control and Safety Plan. Traffic Control and Safety Plans may include such things as adjusted hours of construction in certain locations, signs, flagmen, adequate notice of construction schedules, and cones or barriers to detour traffic. The Traffic Control and Safety Plan for each Reach shall be completed and notice/information given to affected sensitive sites at least 30-days prior to the anticipated disruption to be caused by construction.	Plan to be prepared and reviewed by affected agencies at the time of construction drawing review. Notice to affected properties 30 days prior to construction.	WMWD	Approved Traffic Control and Safety Plan.			
	All Alternative	<b>MM Trans 2a:</b> (TRAF-1 through TRAF 3 and TRAF-6): Based on the Traffic Impact Study Report and Traffic Impact Study Report Addendum prepared for the project, it is concluded that the traffic impacts generated from the installation of the pipeline will require implementation of mitigation which may include non-peak hour construction (AM peak hours are 7:00 a.m. to 9:00 a.m., PM peak hours are 4:00 p.m. to 6:00 p.m.), temporary lane closures, temporary lane shifts using channelizing devices, temporary signal phasing modifications, and detours to divert traffic through nearby streets. A Traffic Control and Safety Plan shall be prepared for each reach of project construction. To maintain traffic flow and reduce air quality impacts, Traffic Control and	Prior to construction	WMWD	Traffic Control Plan with relevant issues addressed, provided to all affected parties.			

		<p>Safety Plans shall implement recommendations on pages 1-3 through 1-12 of the Traffic Study and 1-3 through 1-6 of the Traffic Study Addendum, and shall ensure that all vehicular/pedestrian/bike connections are maintained throughout the construction period and may include, but not be limited to, such things as:</p> <ul style="list-style-type: none"> <li>• identification of all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow;</li> <li>• circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone;</li> <li>• procedures to limit lane closures during peak hours to the extent possible;</li> <li>• haul routes that would minimize truck traffic on local roadways to the extent possible;</li> <li>• detours for bicycles and pedestrians in all areas potentially affected by project construction;</li> <li>• procedures ensuring that open trenches subject to vehicular or pedestrian traffic would be covered at the end of each workday with metal plates capable of accommodating traffic;</li> <li>• the installation of traffic control devices as specified in the California Manual on Uniform Traffic Control Devices;</li> <li>• the installation of safety fencing, where needed, to protect pedestrians from construction areas;</li> <li>• applicable railroad safety and engineering guidelines that would be adhered to when installing pipeline within a railroad right-of-way, and by which all construction crews and project personnel would be trained on applicable railroad safety guidelines prior to commencing work within the railroad right-of-way;</li> <li>• procedures by which construction vehicles and equipment would not cross the tracks except at established public crossings or as specified by the applicable railroad company;</li> <li>• developed access plans to be implemented for highly sensitive land uses such as police and fire stations, transit stations, hospitals, and schools. The access plans would be developed with the facility owner or administrator. To minimize disruption of emergency vehicle access, affected jurisdictions shall be asked to identify detours for emergency vehicles, which will then be posted by the contractor. The facility owner or operator shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures;</li> <li>• procedures to store construction materials only in designated areas;</li> <li>• coordination with local transit agencies for temporary relocation of routes or bus stops in</li> </ul>					
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		<p>work zones, as necessary;</p> <ul style="list-style-type: none"> <li>plans to restore all roads disturbed during project construction to their preconstruction condition, pursuant to franchise agreements with an applicable jurisdiction;</li> <li>provide dedicated turn lanes for movement of construction trucks and equipment on and off site; and</li> <li>reroute construction trucks away from sensitive receptor areas.</li> </ul>					
All Alternatives		<p><b>MM Trans 3:</b> Prior to the commencement of each individual construction project, WMWD and its contractor shall consult with the affected local jurisdiction(s) in order to coordinate project construction with applicable Capital Improvement Projects, underground facilities and/or other known potential items needing to be taken into account during final design, plan specifications, and/or construction so that issues can be avoided and/or remedies included in the specifications that meet with each jurisdiction's requirements.</p>	Prior to construction	WMWD and local jurisdiction	Traffic Control Plan with relevant issues addressed, provided to all affected parties.		
		<p><b>MM Trans 3a:</b> Project specifications for the portion of the Project construction that includes the intersection of Van Buren Boulevard and Arlington Avenue within the city of Riverside shall ensure the red light enforcement system is not impacted so that it remains operational. In addition, if the contractor anticipates impacts to the red light enforcement system anywhere within the city of Riverside, WMWD and its contractor shall consult with the City of Riverside Public Works Department, provide plans and proposed specifications including construction timing and duration, construction techniques to clearly identify potential impacts and to show that specifications ensure that such red light enforcement shutdowns are minimized during pipe installation.</p>	Prior to construction	WMWD, Contractor, and City of Riverside Public Works Department	Construction Plans and Specifications		
		<p><b>MM Trans 3b:</b> For portions of the Project to be constructed within the city of Riverside, prior to the commencement of each individual construction project (i.e. portion of the whole Project), WMWD and its engineer shall consult with the Riverside Public Works Department and Planning Department regarding the detailed intended alignment. The intended alignment will be designed to minimize impacts to local business access to the greatest extent feasible. The Alignment Study will be adjusted/completed with City comments in mind and provided to City for review. To assure that all detailed issues associated with the detailed alignment are being addressed, 50% plans shall be provided to the City for review and comment. Issuance of the</p>	Prior to construction	WMWD, Contractor, and City of Riverside Public Works and Planning Departments	Alignment Study and City of Riverside Encroachment Permit		

		Encroachment Permit will constitute the City's approval of plans, specifications, Traffic Control Plans and any other items required for approval of such.						
All Alternatives		<b>MM Trans 4:</b> WMWD shall restrict all necessary lane closures or obstructions along the Reach on major roadways to off-peak periods in urbanized areas to mitigate traffic congestion and delays which would be caused by lane closures during construction and by exploratory excavations. Lane closures must not occur between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m., or as directed in writing by the affected public agency. Alternatively, WMWD shall consider nighttime construction in areas where no residences are located within 500 feet, and where traffic impacts could be reduced by avoidance of daytime construction. WMWD shall have a Traffic Management Plan prepared by a registered Traffic Engineer for the Northern Reach, describing which traffic lanes would require closure based on the pipeline location within each street, and where night construction is proposed. This plan shall be approved by each affected local jurisdiction prior to construction and implementation by WMWD.	Prior to construction in the Northern Reach	WMWD and local jurisdiction	Traffic Control Plan with relevant issues addressed, provided to all affected parties.			
All Alternatives		<b>MM Trans 5:</b> Prior to finalizing plans for individual construction projects, WMWD shall identify all land uses along the right-of-way where project construction may adversely affect vehicular access to driveways. Where practicable, WMWD shall install the pipeline in a street location or in a manner which minimizes access problems WMWD shall also develop construction scheduling in a manner that minimizes impacts to businesses or residential areas, scheduling construction to avoid the hours or days of the week during which businesses receive the most customers, and avoiding peak traffic times adjacent to residential areas.	Prior to construction	WMWD and local jurisdiction	Traffic Control Plan with relevant issues addressed, provided to all affected parties.			
All Alternatives		<b>MM Trans 6:</b> WMWD shall give written notification to all landowners, tenants, business operators, and residents along the right-of-way of the construction schedule, and shall explain location and duration of the pipeline and construction activities within each street (e.g., which lane/s will be blocked, at what times of day, and on what dates). WMWD shall identify any potential obstructions to driveway access, and if necessary shall make alternative access provisions. The written notification shall include a toll-free telephone number for business coordination and shall encourage affected parties to discuss their concerns with WMWD prior to the start of construction so individual problems and solutions can be identified. Alternative access provisions shall include WMWD-provided signage and alternate parking as provided and approved by local agencies.	Prior to construction	WMWD and contractor	Traffic Control Plan and construction project schedule.			

All Alternatives	<b>MM Trans 7:</b> WMWD shall submit the location of proposed staging area(s) to appropriate local jurisdictions for review and approval. WMWD shall state the size of the area, the purpose (e.g., storage of construction equipment and employee parking), the number of vehicles and pieces of equipments to be stored, and the duration (in number of days and number of hours per day) that each staging area will be used. Such areas shall be configured to minimize traffic interference.	Prior to construction	WMWD and local jurisdiction	Traffic Control Plan and/or construction documents with relevant issues addressed, provided to all affected parties.			
All Alternatives	<b>MM Trans 8:</b> WMWD shall provide a shuttle bus service for construction workers from convenient off-street parking areas to the work sites to minimize traffic volumes and parking demand at the work sites. Sufficient off-street parking shall be provided at the bus service staging areas so that adjacent or nearby parking facilities are not adversely affected. Multiple staging areas shall be utilized, if necessary, to reduce traffic impacts on the roadways serving the staging areas. A plan for use of shuttle buses and parking areas shall be submitted to the affected local jurisdictions for review and written approval.	Prior to construction	WMWD and local jurisdiction	Traffic Control Plan with relevant issues addressed, provided to all affected parties.			
Preferred Alternative Only	<b>MM Trans 9:</b> Based on the Traffic Impact Study Report Addendum prepared for the project, it is concluded that the traffic impacts generated from the installation of the pipeline at the Mockingbird Connection underneath Van Buren Boulevard shall utilize a jack and bore method of construction so that construction will not impact traffic. Construction shall be handled so as to continue to allow access to local residents.	During Grading and/or Construction	Contractor construction manager	Construction plans and specifications reviewed by WMWD.			
All Alternatives	<b>MM Trans 10:</b> WMWD shall coordinate in advance with public transit agencies (RTA and Omnitrans) to avoid disruption to transit operations. Public transit agencies which operate bus routes on the roadways potentially affected by the proposed construction activities shall be informed in advance of the pipeline project and the potential impacts at the bus stop locations. Alternative pick-up/drop off locations shall be determined and signed appropriately. WMWD shall document coordination with transit agencies and provide documentation to the public agencies prior to the start of construction.	Prior to implementation of the Traffic Control and Safety Plan ( <b>MM Trans 2</b> ).	WMWD	Transit agency review and concurrence with Traffic Control and Safety Plan.			
All Alternatives	<b>MM Trans 11:</b> WMWD shall provide alternative pedestrian/bicycle access routes and trails to avoid obstruction to pedestrian/bicycle circulation. Where existing pedestrian circulation routes or bike trails would be obstructed by pipeline construction, alternative access routes shall be identified in consultation with the local jurisdiction and signed/marked appropriately.	Prior to implementation of the Traffic Control and Safety Plan ( <b>MM Trans 2</b> ).	WMWD and local jurisdiction	Traffic Control and Safety Plan.			
All Alternatives	<b>MM Trans 12 (TRAF-7):</b> WMWD shall restore any impacted public street, sidewalks, bikeways and trails to their pre-construction condition, following	Encroachment permit or other approved by affected agency. Installation no later than 30	WMWD Local affected agency approving and	Approved plans and final site inspection.			

		completion of each individual construction project as mutually agreed between WMWD and the local jurisdiction prior to construction.	days after.	inspecting project.				
	All Alternatives	<b>MM Trans 13</b> (TRAF-4): Encroachment permits for all work within public rights-of-way shall be obtained from each involved agency prior to commencement of any construction. WMWD shall comply with all traffic control requirements of the affected local agencies.	Prior to construction	WMWD	Encroachment permit and Traffic Control Plan.			
	All Alternatives	<b>MM Trans 14</b> (TRAF-5): As required by local jurisdictions, the proposed pipeline shall be jacked under select major intersections to avoid traffic disruption and congestion.	Prior to construction	WMWD	Consultation with affected jurisdiction, review of plans by WMWD			

<sup>1</sup> Reductions attributed to certain mitigation measures are based on personal communication with Charles Blankson, AQMD staff, and the AQMD CEQA Handbook.