

EXECUTIVE SUMMARY

ES.1 Introduction

The Los Angeles County Waterworks District No. 40, Antelope Valley (LACWWD40) as the Lead Agency has prepared this Final Program Environmental Impact Report (PEIR) in consultation with the following Responsible Agencies: the City of Lancaster, the City of Palmdale, the Rosamond Community Services District (RCSD), the County Sanitation Districts Nos. 14 and 20 of Los Angeles County (LACSD Nos. 14 and 20), Palmdale Water District (PWD), Antelope Valley-East Kern Water Agency (AVEK), and Quartz Hill Water District (QHWD). This Final PEIR has been prepared to provide information about the potential effects on the local and regional environment associated with the North Los Angeles/Kern County Regional Recycled Water Project (proposed project). The purpose of the proposed project is to construct a regional recycled water distribution system to help meet the growing demand for water in the region.

The proposed project would be located in the Antelope Valley, which encompasses approximately 2,400 square miles in northern Los Angeles County, southern Kern County, and western San Bernardino County. The proposed project would be located within several cities including the City of Palmdale, the City of Lancaster, the Town of Rosamond, and portions of unincorporated Los Angeles County including Quartz Hill.

This Final PEIR has been prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq.; the State *CEQA Guidelines* in the Code of Regulations, Title 14, Division 6, Chapter 3; and CEQA-Plus requirements of the State Water Resources Control Board.

Inquiries about the proposed project should be directed to:

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ES.2 Background

The Antelope Valley is faced with serious challenges with respect to management of water and wastewater resources in the region. The population in the Antelope Valley is expected to increase by 161 percent by 2035 (RWMG, 2007). Currently, the demand for potable water exceeds supply in the region, and by 2035 this demand is expected to double (RWMG, 2007). Wastewater discharges also will increase in the future as population increases.

The Regional Water Management Group (RWMG) is a collection of 11 local agencies that are working collectively to resolve the water management challenges in the Antelope Valley. LACWWD40 and the partner agencies that are sponsoring the proposed project are members of the RWMG. Currently, the demand for potable water in the region is met largely by water imported through the State Water Project and groundwater pumped from the Antelope Valley Groundwater Basin. Imported water supplies are becoming less reliable; the AV Groundwater Basin is facing overdraft conditions; and the water rights of overlying landowners of the AV Groundwater Basin have not yet been adjudicated (although this process is currently under way) (DWR, 2008; RWMG, 2007). Thus, under current conditions, imported water and groundwater can not be expected to accommodate the future water demands of a growing population in the Antelope Valley. As a result, the RWMG is tasked with finding creative solutions for finding new sources of water for Antelope Valley residents.

The RWMG has prepared the *Integrated Regional Water Management Plan (IRWMP)* for the Antelope Valley as a roadmap for resolving the water management challenges in the region. The proposed project is identified in the IRWMP as a project that addresses the need for both increased water supplies and wastewater effluent management. The proposed project would provide a backbone system for distribution of recycled water throughout the Antelope Valley.

ES.3 Project Objectives

The objectives of the proposed project are as follows:

- Provide recycled water conveyance backbone infrastructure sufficient to accommodate planned regional recycled water demands;
- Integrate regional recycled water production, distribution, and re-use capabilities in the Antelope Valley;
- Provide conveyance, storage, and pumping capacity sufficient to accommodate peak future demands;
- Reduce the region's dependency on imported water;
- Augment local water supplies;
- Promote the State's policies for beneficial reuse of recycled water to replace potable water where possible.

ES.4 Project Description

The proposed project would include the following components: approximately 70 miles of recycled water conveyance pipelines, four storage reservoirs, two distribution pump stations, and two booster pump stations (Figure ES-1). The proposed project would provide the primary backbone system for distribution of recycled water to end users in the Antelope Valley. The end users would include but would not be limited to the following:

- Municipal and industrial (M&I) applications;
- Agricultural irrigation¹;
- Cooling water for power plants; and
- Groundwater recharge.

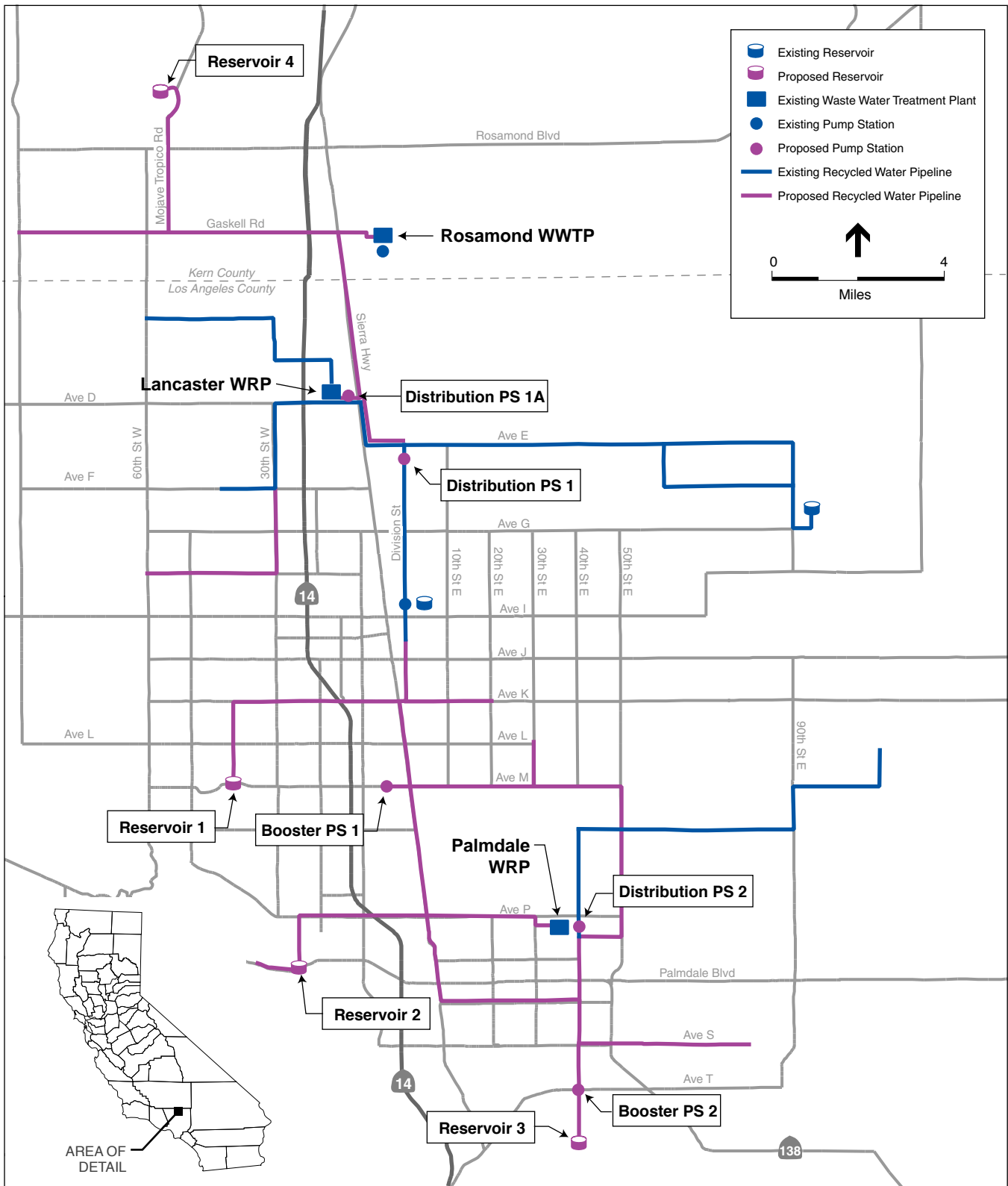
For existing and future end users identified to-date, the annual demand for recycled water in the Antelope Valley is estimated at 21,210 afy at buildout. The system capacity of the proposed project would be designed to meet this demand. This demand includes 17,491 afy for M&I end uses in Los Angeles County (Kennedy/Jenks, 2006), plus 1,119 afy for M&I end uses in Kern County (Seal, 2008), and 2,600 afy for use as cooling water at the planned Palmdale Hybrid Power Plant.

Recycled water use would comply with the California Department of Public Health recycled water regulations contained in Title 22 of the California Code of Regulations (see Chapter 1, Introduction for additional information). In addition, the proposed project would be subject to conditions imposed by the Regional Water Quality Control Board (RWQCB) pursuant to Water Recycling Requirements (WRRs). The proposed project would be constructed in phases, subject to funding and the identification of recycled water users. Each component would be constructed by LACWWD40 or one of the Responsible Agencies as part of the regional backbone distribution system.

This PEIR provides project-level coverage for the following project components: construction and operation of the recycled water pipelines and M&I applications for recycled water. The analysis of these components is conducted at a sufficient level of detail such that additional environmental documentation is not necessary. In other words, these project components are evaluated at a level of detail that is typically provided for a project EIR (*CEQA Guidelines* §15161).

Program-level coverage is provided for the remaining components of the proposed project, which include the following: construction and operation of the proposed pump stations and storage reservoirs, and the use of recycled water for agricultural irrigation (agricultural reuse), cooling water at power plants, and groundwater recharge. Prior to implementation of these components, additional analysis is required to determine the need for subsequent environmental documentation.

¹ The Facilities Plans for the PWRP and LWRP include agricultural effluent management sites for application of recycled water produced at both reclamation plants (LACSD No. 14, 2004; LACSD No. 20, 2005). The environmental effects of using recycled water for agricultural irrigation at these effluent management sites have been evaluated pursuant to CEQA in previous environmental documents (see Chapter 1, Section 1.5.2). This proposed project does not include these agricultural effluent management areas.



SOURCE: Kennedy/Jenks Consultants; ESA

North LA/Kern County Regional Recycled Water Project . 206359

Figure ES-1
Existing and Proposed Facilities

ES.5 Project Alternatives

An EIR must describe a range of reasonable alternatives to the proposed project or alternative project locations that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts to the proposed project. The alternatives analysis must include the “No Project Alternative” as a point of comparison. The No Project Alternative includes existing conditions and reasonably foreseeable future conditions that would exist if the proposed project were not approved (*CEQA Guidelines* §15126.6). The following alternatives are discussed further in Chapter 6, Alternatives Analysis. CEQA also requires that an EIR identify an environmentally preferred alternative (*CEQA Guidelines* §15126.6[e][2]).

No-Project Alternative

Under the No-Project Alternative, LACWWD40 and the partner agencies would not implement the Regional Recycled Water Project. The LWRP, PWRP, and RWWTP would be upgraded as planned to produce tertiary-treated effluent; however, there would be no integrated system to distribute this recycled water to end users in the Antelope Valley. LACSD Nos. 14 and 20 would manage recycled water with agricultural reuse only. RCSD would need to develop alternative measures for discharge or distribution of the recycled water produced at the RWWTP. Under the No-Project Alternative, future water demand in the Antelope Valley would continue to grow and would be met with increased quantities of groundwater, surface water, and imported water, and/or increased conservation measures.

Alternative 1: Non-Integrated System

Under Alternative 1, instead of implementing the proposed project, LACWWD40, PWD, QHWD, and RCSD would design, construct, and operate their own recycled water systems. Alternative 1 would result in four separate recycled water systems in the Antelope Valley instead of one integrated regional system. LACWWD40 would construct recycled water pipelines, pump stations, and storage reservoirs within its service area. LACWWD40 would contract independently with LACSD No. 14, LACSD No. 20, and RCSD to purchase recycled water for the end users in its service area.

ES.6 Summary of Impacts

Table ES-1, at the end of this chapter, presents a summary of the impacts and mitigation measures identified for the proposed project. The complete impact statements and mitigation measures are presented in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures. The level of significance for each impact was determined using significance criteria (thresholds) developed for each category of impacts; these criteria are presented in the appropriate sections of Chapter 3. Significant impacts are those adverse environmental impacts that meet or exceed the significance thresholds; less-than-significant impacts would not exceed the thresholds. Table ES-

1 indicates the measures that will be implemented to avoid, minimize, or otherwise reduce significant impacts to a less-than-significant level.

ES.7 Organization of this PEIR

This Final PEIR has been organized into the following sections:

- ES. Executive Summary.** This chapter summarizes the contents of the Final PEIR.
- 1. Introduction and Project Background.** This section discusses the CEQA process and the purpose of the PEIR.
 - 2. Project Description.** This section provides an overview of the proposed project, describes the need for and objectives of the proposed project, and provides detail on the characteristics of the proposed project.
 - 3. Environmental Setting, Impacts and Mitigation Measures.** This chapter describes the environmental setting and identifies impacts of the proposed project for each of the following environmental resource areas: Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Agriculture; Noise; Environmental Justice; Transportation and Traffic; and Utilities and Service Systems. Measures to mitigate the impacts of the proposed project are presented for each resource area.
 - 4. Cumulative Impacts.** This chapter describes the potential impacts of the proposed project when considered together with other related projects in the project area.
 - 5. Growth Inducement.** This chapter describes the potential for the proposed project to induce growth.
 - 6. Alternatives Analysis.** This chapter presents an overview of the alternatives development process and describes the alternatives to the proposed project that were considered.
 - 7. References.**
 - 8. Report Preparers.** This chapter identifies authors and consultants involved in preparing this Final PEIR, including persons and organizations consulted.
 - 9. Acronyms.**
 - 10. Comment Letters.** This chapter includes all comment letter received during the Draft PEIR public comment period.
 - 11. Response to Comments.** This chapter includes written responses to all comment letters received during the Draft PEIR public comment period (Chapter 10).
 - 12. Lead Agency Revisions to Final PEIR:** This chapter includes revisions to the Draft PEIR made by the Lead Agency in addition to those included in Chapter 11 as a result of responses to comments.

**TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>Aesthetics</p> <p>3.1-1: Construction of the proposed recycled water pipeline could generate short-term impacts to aesthetic resources.</p> <p>3.1-2: Construction and operation of the proposed storage reservoirs and pump stations could result in significant impacts to aesthetic resources.</p>	<p>3.1-1: Following construction activities, the implementing agencies shall restore disturbed areas by reestablishing pre-existing conditions including topography, repaving roadways, replanting trees, and/or reseeding with a native seed mix typical of the immediate surrounding area. The implementing agencies shall be responsible for monitoring the replanted areas to ensure that revegetation is successful.</p> <p>3.1-2a: The implementing agencies shall attempt to locate pump stations and reservoirs in areas that are compatible with existing views and vistas.</p> <p>3.1-2b: During project design, the implementing agencies shall prepare a landscape plan for each aboveground project component. The landscape plan shall include measures to restore disturbed areas by reestablishing existing topography, including replanting trees and/or reseeding with a native seed mix typical of the immediately surrounding area. The landscape plan shall include a required seed mix and plant order to shield proposed aboveground facilities from public view. The landscape plan shall include a monitoring plan to ensure that the site restoration and the establishment of vegetation is successful.</p>	<p>Less than significant</p> <p>Less than significant</p>
<p>3.1-3: Operation of the proposed storage reservoirs and pump stations could result in additional light and glare impacts due to nighttime security lighting.</p> <p>3.1-4: Application of recycled water for groundwater recharge could result in significant impacts to aesthetic resources.</p> <p>Air Quality</p> <p>3.2-1: The proposed project could conflict with or obstruct implementation of the applicable air quality plan.</p>	<p>3.1-2c: The implementing agencies shall ensure that storage reservoir designs include non-glare exterior coatings that are colored an earth tone to blend in with the surrounding landscape.</p> <p>3.1-3: The exterior lighting installed around the storage reservoirs and pump stations shall be of a minimum standard required to ensure safe visibility. Lighting shall be shielded and directed downward, away from neighboring land uses to minimize impacts of light and glare.</p> <p>Implement Mitigation Measure 3.1-2b.</p> <p>3.2-1a: The implementing agencies shall include in contractor specifications the implementation of a fugitive dust control program pursuant to the provisions of AVAQMD Rule 403 or KCAPCD Rule 402.</p> <p>3.2-1b: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.</p> <p>3.2-1c: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions. Construction</p>	<p>Less than significant</p> <p>Less than significant</p> <p>Less than significant</p>

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.2-2: Construction activities associated with pipeline construction could generate substantial amounts of dust and other criteria pollutant emissions.</p>	<p>emissions shall be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.</p> <p>3.2-1d: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible.</p> <p>3.2-1e: All construction vehicles shall be prohibited from idling in excess of five minutes, both on- and off-site.</p> <p>3.2-1f: The project applicant shall utilize coatings and solvents that are consistent with applicable AVAQMD or KCAPCD rules and regulations.</p> <p>Implement Mitigation Measures 3.2-1a through 3.2-1f.</p>	Less than significant
<p>3.2-3: Operation of the pipelines would result in minimal emissions of criteria air pollutants.</p>	None required.	Less than significant
<p>3.2-4: Operation of the pipeline would not create objectionable odors affecting a substantial number of people.</p>	None required.	Less than significant
<p>3.2-5: The proposed project would result in fewer greenhouse gas emissions than would result from importing a similar amount of water.</p>	None required.	Less than significant
<p>3.2-6: Construction activities associated with reservoirs and pump stations could generate substantial amounts of dust and other criteria pollutant emissions.</p>	Implement Mitigation Measures 3.2-1a through 3.2-1f.	Less than significant
<p>3.2-7: Operation of the reservoirs and pump stations would result in minimal operational emissions of criteria air pollutants.</p>	None required.	Less than significant
<p>Biological Resources</p>		
<p>3.3-1: Construction of the pipeline could have a substantial adverse effect on listed, candidate or special-status ground dwelling wildlife species including the California red-legged frog and Mohave ground squirrel.</p>	<p>3.3-1a: The implementing agencies shall have a qualified biologist conduct a pre-construction field reconnaissance survey for special-status ground-dwelling species within the construction right-of-way. If potential for special-status ground-dwelling species is identified then presence/absence protocol surveys shall be conducted. If protocol surveys identify the presence of special-status ground-dwelling species, the implementing agencies shall consult with CDFG to determine further required mitigation.</p> <p>3.3-1b: The implementing agencies shall avoid impacts on California red-legged frog by eliminating construction activities within areas where the species may occur. Implementing agencies shall employ tunneling or jack and bore construction methods under drainages that may support California red-legged frog in order to avoid impacting the species.</p>	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
	<p>3.3-1c: The implementing agencies shall stake, flag, fence, or otherwise clearly delineate the construction right-of-way that restricts the limits of construction to the minimum necessary to implement the project near areas that may support California red-legged frogs as determined by a qualified biologist.</p> <p>3.3-1d: The implementing agencies shall install a silt fence or some other impermeable barrier to exclude small wildlife species from entering the active work areas. Exclusion fencing can be limited to areas of documented occurrences of special-status wildlife as determined during pre-construction surveys by a qualified biologist.</p> <p>3.3-1e: Prior to project implementation, a habitat assessment will be conducted by a qualified biologist to determine the potential for the Mohave ground squirrel to occur within construction zones. If the habitat assessment determines that potential habitat for the Mohave ground squirrel is present in the impact zone or within 300 feet of the construction zone, then the implementing agencies have two options: 1) assume the Mohave ground squirrel is present and either take the steps necessary to avoid any potential direct or indirect impacts (i.e., construction noise and dust) that may be incurred by the Mohave ground squirrel or 2) arrange for a qualified biologist with the necessary permits to implement a trapping program to determine the presence or absence of the Mohave ground squirrel. If Mohave ground squirrel is identified as present or assumed present, implementing agencies shall obtain an incidental take permit from CDFG pursuant to Section 2081 of the California Fish and Game Code and provide compensation at a ratio determined by CDFG.</p>	
<p>3.3-2: Construction of the pipeline could have a substantial adverse effect on listed, candidate or special-status bat and avian species including the Swainson's hawk, American peregrine falcon,</p>	<p>3.3-1f: Prior to project implementation, a burrowing owl presence/absence survey shall be conducted by a qualified biologist in accordance with CDFG's <i>1995 Staff Report on Burrowing Owl Mitigation and the Burrowing Owl Consortium's 1992 Burrowing Owl Protocol and Mitigation Guidelines</i> to determine the potential for the burrowing owl to occur within impacted areas and construction zones. If the survey results in discovery of burrowing owl, sign, or potential burrow sites in the impact zone, then additional surveys shall be performed during the breeding season (April 15 to July 15) in accordance with the <i>1992 Guidelines</i> to determine use of the site by burrowing owl. Following this survey, the implementing agencies shall consult with CDFG to determine avoidance or mitigation measure to minimize project impacts to burrowing owl.</p>	
<p>3.3-2a: Construction of the pipeline could have a substantial adverse effect on listed, candidate or special-status bat and avian species including the Swainson's hawk, American peregrine falcon, nesting/roosting special-status mobile bird and bat species, and other</p>	<p>3.3-2a: Prior to any ground-disturbing activities, the implementing agencies shall have a qualified biologist conduct a pre-construction spring/summer active season reconnaissance survey for</p>	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
southwestern willow flycatcher, and least Bell's vireo.	<p>nesting birds within 300 feet (500 feet for raptors) of the construction limits of each project element to determine and map the location and extent of special-status species occurrence(s) that could be affected by the project.</p> <p>3.3-2b: The implementing agencies shall avoid direct impacts on any nesting birds located within the limits of construction. This could be accomplished by establishing the construction right of way and removal of plant material outside of the typical breeding season (February 1 through August 31).</p> <p>3.3-2c: If construction and vegetation removal is proposed for the bird nesting period February 1 through August 31, then preconstruction surveys for nesting/roosting bird and bats species shall begin 30 days prior to construction disturbance with subsequent weekly surveys, the last one being no more than three days prior to work initiation. The surveys shall include habitat within 300 feet (500 feet for raptors) of the construction limits. Active nest sites located during the pre-construction surveys shall be avoided and a non-disturbance buffer zone established dependent on the species and in consultation with the USFWS and CDFG. This buffer zone shall be delineated in the field with flagging, stakes or construction fencing. Nest sites shall be avoided with approved non-disturbance buffer zones until the adults and young are no longer reliant on the nest site for survival as determined by a qualified biologist. For species with high site fidelity, such as Swainson's hawk, if direct take of nests outside of the breeding seasons is required, the implementing agency shall contact CDFG to determine appropriate mitigation measures.</p> <p>3.3-2d: If a natal bat roost site is located within the limits of construction during pre-construction surveys, it shall be avoided with non-disturbance buffer zone established by a qualified biologist in consultation with the USFWS and CDFG until the site is abandoned.</p> <p>3.3-2e: The implementing agencies shall minimize impacts on documented locations of special-status species and any nesting birds to the extent feasible and practicable by reducing the construction right-of-way through areas of occurrences to either avoid the occurrence or reduce impacts to the minimum necessary to complete the project.</p> <p>3.3-2f: The implementing agencies shall stake, flag, fence, or otherwise clearly delineate the construction right-of-way that restricts the limits of construction to the minimum necessary to implement the project that also would avoid and minimize impacts on special-status avian and bat species.</p>	

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.3-3: Construction of the pipeline could have a substantial effect on special-status plant species and habitat types.</p>	<p>3.3-2g: The implementing agencies shall instruct construction personnel on the importance of buffer zones and sensitivity of the delineated areas.</p> <p>3.3-3a: The implementing agencies shall have a qualified biologist conduct a pre-construction spring/summer floristic inventory and rare plant survey of the proposed project areas in accordance with CDFG's <i>Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities</i>, (revised May 8, 2000) to determine and map the location and extent of special-status plant species populations within the construction right-of-way. The survey shall be conducted during the appropriate flowering time for target plant species.</p> <p>3.3-3b: If not possible to avoid, the implementing agencies shall minimize impacts on special-status plant species by reducing the construction right-of-way through areas with potential occurrences of special-status plant species. For unavoidable direct impacts to special-status species, consultation with CDFG shall be required to determine the impact area and further mitigation, which could include acquisition of habitat of equal or superior value at a ratio of at least 2:1.</p> <p>3.3-3c: The implementing agencies shall stake, flag, fence, or otherwise clearly delineate the construction right-of-way that restricts the limits of construction to the minimum necessary to implement the project that also would avoid and minimize impacts on special-status plant species.</p> <p>3.3-3d: The implementing agencies shall restore all disturbed areas back to pre-construction conditions and a restoration plan shall be developed and implemented that contains the following items: responsibilities and qualifications of the personnel to implement and supervise the plan; site preparation and planting implementation; schedule; maintenance plan/guidelines; and monitoring plan.</p> <p>3.3-3e: Earth-moving equipment will avoid maneuvering in areas outside the identified limits of construction in order to avoid disturbing open space areas that will remain undeveloped. Prior to construction, the natural open space limits will be marked by the construction supervisor and a qualified biologist. These limits will be identified on the construction drawings. The implementing agencies will submit a letter to the appropriate agencies verifying that construction limits have been flagged and clearly delineated in the field. No earth-moving equipment will be allowed outside demarcated construction zones.</p>	Less than significant

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.3-4: Construction of the pipeline could conflict with the Joshua Tree and Native Desert Vegetation Preservation Ordinance.</p>	<p>3.3-4a: The implementing agencies shall attempt to place all project components in areas exhibiting absence or a low density of Joshua trees and other native desert vegetation.</p> <p>3.3-4b: Prior to the commencement of grading activities for any component of the proposed project, within the City of Palmdale, a qualified biologist/arborist shall be consulted to determine the biological/aesthetic value of potentially impacted trees under the jurisdiction of the Palmdale Native Desert Vegetation Ordinance. For protected vegetation located within the final impact areas, a proposal application would be necessary, including a desert vegetation preservation plan which depicts the location of each Joshua tree and California juniper, details tree age and health, and describes which can be saved and maintained on the site or relocated. A permit must be obtained from the City of Palmdale's landscape architect prior to removal of protected vegetation in Los Angeles County, which may require mitigation in the form of replacement plantings of all impacted vegetation. Prior to the removal of protected vegetation in Kern County, the Kern County Environmental Health Services shall be contacted.</p>	<p>Less than significant</p>
<p>3.3-5: Construction of the pipeline could conflict with designated Significant Ecological Areas.</p>	<p>3.3-4c: If avoidance of Joshua tree woodlands or other special-status vegetative community is not feasible, the implementing agencies shall acquire off-site habitat of equal or superior quality at a no less than a 2:1 ratio within remaining habitat in the Antelope Valley. Location, terms and conditions for habitat acquisition, protection, and maintenance shall be determined through consultation with resource agencies, including CDFG.</p> <p>None required.</p>	<p>Less than significant</p>
<p>3.3-6: Construction of the pipeline could have a substantial adverse effect on wetlands considered waters of the state.</p>	<p>3.3-6: Prior to construction, the implementing agencies shall retain a qualified biologist to survey proposed construction zones including staging areas and access roads. If wetlands would be affected by construction, the qualified biologist would prepare a report outlining mitigation and compensation requirements to be implemented prior to construction. The mitigation requirements shall include the following at a minimum:</p> <ul style="list-style-type: none"> • Implementing agencies shall avoid impacting previously undisturbed areas where possible. This would include employing tunneling or jack and bore methods under drainages. • If avoidance is not feasible for engineering or cost reasons, the implementing agencies shall conduct jurisdictional delineation of wetland features. 	<p>Less than significant</p>

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.3-7: Construction of the pump stations and reservoirs could have a substantial effect on special-status wildlife species including the California red-legged frog and Mohave ground squirrel.</p>	<ul style="list-style-type: none"> Implementing agencies shall obtain WDRs from the RWQCB for impacts to waters of the state including wetland areas. <p>Implement Mitigation Measures 3.3-1a through 3.3-1f.</p>	Less than significant
<p>3.3-8: Construction of the pump stations and reservoirs could have a substantial effect on special-status bat and avian species including the Swainson's hawk, American peregrine falcon, southwestern willow flycatcher, and least Bell's vireo.</p>	Implement Mitigation Measures 3.3-2a through 3.3-2g.	Less than significant
<p>3.3-9: Construction of the pump stations and reservoirs could have a substantial effect on special-status plant species.</p>	Implement Mitigation Measures 3.3-3a through 3.3-3e.	Less than significant
<p>3.3-10: Construction of the pump stations and reservoirs could conflict with the Joshua Tree and Native Desert Vegetation Preservation Ordinance.</p>	Implement Mitigation Measures 3.3-4a through 3.3-4c.	Less than significant
<p>3.3-11: Construction of the pump stations and reservoirs could conflict with designated Significant Ecological Areas.</p>	None required.	Less than significant
<p>3.3-12: Construction of the pump stations and reservoirs could have a substantial adverse effect on wetlands considered waters of the state.</p>	Implement Mitigation Measure 3.3-6.	Less than significant
<p>Cultural Resources</p>	<p>3.4-1a: Prior to initial construction of pipelines, the implementing agency shall retain the services of a qualified archaeologist to prepare a Cultural Resources Monitoring and Mitigation Plan (CMMP) and a Treatment Plan (TP) in accordance with CEQA Guidelines Sections 15064.5 and 15126.4. The CMMP shall set forth criteria for evaluating the significance of resources discovered during construction and identify appropriate data recovery methods and procedures to mitigate project impacts on significant resources. At a minimum, the CMMP shall include a summary of available information on known sites and sensitive locations in the project area; a historical context for the evaluation of resources that may be encountered during construction; a research design outlining important historical themes and research questions relevant to the known sites in the study area; data requirements and the appropriate field and laboratory methods to be used to acquire data needed for significance evaluation and impact mitigation. The CMMP will also identify specific pipeline segments where cultural resources monitors would be required during construction. The TP will identify reporting and curating requirements for artifacts uncovered during construction.</p>	Less than significant
<p>3.4-1: Ground-disturbing activities during pipeline installation could unearth, expose, or disturb archaeological, historical, or Native American resources.</p>		

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.4-2: Ground-disturbing activities during pipeline installation could unearth, expose, or disturb human remains.</p>	<p>All project activities within or adjacent to the <i>Historical area of Old Palmdale and Old Lancaster and Old Rosamond and Tropico Mine</i> area shall be monitored by a professional archaeologist as there is a high probability for subsurface feature discovery, which includes (though is not limited to) foundations, cisterns, wells, cesspools, basements, or associated elements of the <i>Old Palmdale roundhouse spur of the Southern Pacific Railroad</i>.</p> <p>3.4-1b: A Phase I cultural resources survey shall be conducted for the segments of pipeline not already assessed in the Phase I Assessment conducted for the proposed project. Following completion of the Phase I cultural resource survey, the CMMP and TP shall be updated to include these segments.</p> <p>3.4-2: If human skeletal remains are uncovered during project construction, the implementing agency shall immediately halt work, contact the Kern County or the Los Angeles County coroner, depending upon the location of the find, to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the <i>CEQA Guidelines</i>. If the County coroner determines that the remains are Native American, the implementing agency shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.</p>	Less than significant
<p>3.4-3: Installation of pipelines could potentially unearth, expose, or disturb paleontologic resources including fossil remains, localities, or known fossil-bearing geologic horizons.</p>	<p>3.4-3: The implementing agencies shall develop and implement a Paleontological Resource Monitoring and Mitigation Plan (PRMMP) prior to the onset of construction-related earth moving activities in order to either avoid or mitigate to a less-than-significant level the effects on paleontological resources. During earth-moving construction-related activities, additional previously-unknown fossil sites may be uncovered. The PRMMP must include mitigation protocol for discoveries as well. The PRMMP shall include provisions for the following: special consideration shall be made to collect sediment samples for potential fossiliferous locations as per the Society of Vertebrate Paleontology standards; stratigraphic cross-sections shall be recorded, mapping of the geologic units graphed, and fossil remains, cleaned, analyzed, and catalogued to be accepted for curation at a legal repository; all work must be conducted by a qualified Paleontologist and a final Report of Findings must be submitted upon completion of laboratory analysis.</p>	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.4-4: Proposed ground-disturbing activities for storage reservoirs, pump stations and groundwater recharge facilities could unearth, expose, or disturb archaeological, historical, or Native American resources.</p>	<p>3.4-4a: Prior to initial construction of storage reservoirs, pump station, and recharge facilities, the implementing agency shall retain the services of a qualified archaeologist to prepare a Cultural Resources Monitoring and Mitigation Plan (CMMP) and a Treatment Plan (TP) in accordance with CEQA Guidelines Sections 15064.5 and 15126.4. The CMMP shall set forth criteria for evaluating the significance of resources discovered during construction and identify appropriate data recovery methods and procedures to mitigate project impacts on significant resources. At a minimum, the CMMP shall include a summary of available information on known sites and sensitive locations in the project area; a historical context for the evaluation of resources that may be encountered during construction; a research design outlining important historical themes and research questions relevant to the known sites in the study area; data requirements and the appropriate field and laboratory methods to be used to acquire data needed for significance evaluation and impact mitigation. The CMMP will also identify specific locations where cultural resources monitors would be required during construction. The TP will identify reporting and curating requirements for artifacts uncovered during construction.</p> <p>3.4-4b: <i>DPS1-Hist1</i> and <i>BPS1-Hist1</i> would be adversely impacted by the proposed construction activities and, therefore, shall be subjected to Phase II testing and evaluation for significance under CEQA and NHPA (see Section 3.4.2).</p> <p>3.4-4c: A Phase I cultural resources survey shall be conducted within areas affected by storage reservoir, pump stations, and recharge facilities not already assessed in the Phase I Assessment conducted for the proposed project.</p> <p>3.4-4d: Following completion of additional Phase I cultural resource surveys for sites not already surveyed, the CMMP and TP shall be updated to include these additional sites.</p> <p>3.4-4e: All project activities within or adjacent to the <i>Historical area of Old Palmdale and Old Lancaster</i> and <i>Old Rosamond and Tropico Mine</i> area shall be monitored by a professional archaeologist as there is a high probability for subsurface feature discovery, which includes (though is not limited to) foundations, cisterns, wells, cesspools, basements, or associated elements of the <i>Old Palmdale roundhouse spur of the Southern Pacific Railroad</i>. If these elements are identified, mitigation measures shall be employed that include in-field evaluation by a professional archaeologist (per Secretary of the Interior Standards) and possible data recovery, as needed, per a mitigation treatment plan.</p> <p>3.4-4f: If a prehistoric site is encountered in the vicinity of the concentration of isolated prehistoric artifacts within the northern portion</p>	Less than significant

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.4-5: Construction of storage reservoirs, pump stations, and recharge facilities could potentially unearth, expose, or disturb paleontologic resources including fossil remains, localities, or known fossil-bearing geologic horizons.</p>	<p>of the western parcel of Proposed Reservoir 3, mitigation measures shall be employed that include in-field evaluation by a professional archaeologist (per Secretary of the Interior Standards) and possible data recovery, as needed, per a mitigation treatment plan.</p> <p>3.4-4g: If human skeletal remains are uncovered during project construction, the implementing agency shall immediately halt work, contact the Kern County or the Los Angeles coroner, depending upon the location of the find, to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the <i>CEQA Guidelines</i>. If the County coroner determines that the remains are Native American, the implementing agency shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.</p>	Less than significant
<p>3.5-1: In the event of a major earthquake within the region, underground pipelines could be subject to seismic hazards including surface rupture, liquefaction, landslide, and ground shaking capable of causing localized collapse or damage of engineered fills, structural damage, or pipeline rupture.</p>	<p>3.4-5: The implementing agencies shall develop and implement a Paleontological Resource Monitoring and Mitigation Plan (PRMMP) prior to the onset of construction-related earth moving activities in order to either avoid or mitigate to a less-than-significant level the effects on paleontological resources. During earth-moving construction-related activities, additional previously-unknown fossil sites may be uncovered. The PRMMP must include mitigation protocol for discoveries as well. The PRMMP shall include provisions for the following: special consideration shall be made to collect sediment samples for potential fossiliferous locations as per the Society of Vertebrate Paleontology standards; stratigraphic cross-sections shall be recorded, mapping of the geologic units graphed, and fossil remains, cleaned, analyzed, and catalogued to be accepted for curation at a legal repository; all work must be conducted by a qualified Paleontologist and a final Report of Findings must be submitted upon completion of laboratory analysis.</p>	Less than significant
<p>Geology and Soils</p>	<p>3.5-1: Prior to the approval of construction plans for the project, a design-level geotechnical investigation, including collection of site specific subsurface data shall be completed by the implementing agency. The geotechnical evaluation shall identify density profiles, approximate maximum shallow groundwater levels, a characterization of the vertical and lateral extent of the saturated sand/silt layers that could undergo liquefaction during strong ground shaking, and</p>	

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.5-2: Construction of the proposed recycled water pipelines could result in substantial soil erosion or loss of topsoil, which would result in a significant impact.</p>	<p>development of site-specific design criteria to mitigate potential risks. Recommendations made as a result of these investigations to protect new structures from seismic hazards shall become part of the proposed project.</p> <p>3.5-2: To control water and wind erosion during construction of the project, the implementing agencies, shall ensure that contractors implement Best Management Practices (BMPs) to control wind and water erosion during and shortly after construction of the project and permanent BMPs to control erosion and sedimentation once construction is complete. The BMPs could include, but would not be limited to, sediment barriers and traps, silt basins, and silt fences.</p>	Less than significant
<p>3.5-3: The presence of yet undetermined local expansive soils in the project area could result in structural damage to the recycled water pipelines.</p>	<p>3.5-3: The implementing agencies shall require the preparation of site specific geotechnical investigations along the proposed pipeline alignments. These investigations shall identify appropriate engineering considerations, as recommended by a certified engineering geologist or registered geotechnical engineer for planned facilities, including engineering considerations to mitigate the effects of expansive soils. Recommendations made as a result of these investigations to protect new structures from expansive soils shall become part of the proposed project.</p>	Less than significant
<p>3.5-4: Construction of the proposed storage reservoirs and pump stations could result in substantial soil erosion or loss of topsoil, which would result in a significant impact.</p>	<p>Implementation of Mitigation Measure 3.5-2.</p>	Less than significant
<p>3.5-5: In the event of a major earthquake within the region, storage reservoirs and pump stations could be subject to seismic hazards including surface rupture, liquefaction, landslide, and ground shaking capable of causing localized collapse or damage of engineered fills or structural damage.</p>	<p>Implementation of Mitigation Measures 3.5-1 through 3.5-3.</p>	Less than significant
<p>3.5-6: Ground shaking, expansive soils, liquefaction, settlement, erosion and corrosive soils could damage recycled water end uses including the power plant cooling water system and the groundwater recharge basins and appurtenant facilities.</p>	<p>Implementation of Mitigation Measure 3.5-1 through 3.5-3.</p>	Less than significant
<p>Hazardous Materials</p>		
<p>3.6-1: During construction of the proposed project, contaminated soils could be encountered during excavation activities, causing a risk of exposure to hazardous materials.</p>	<p>3.6-1: In the event that evidence of potential soil contamination, including soil discoloration, noxious odors, debris, or buried storage containers are encountered during construction, the implementing agencies shall require the construction contractor(s) to have a contingency plan for sampling and analysis of potentially hazardous substances and coordination with the appropriate regulatory agencies, if necessary. The required handling, storage, and disposal methods shall depend on the types and concentrations of chemicals identified in</p>	Less than significant

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.6-2: Accidental upset of hazardous materials used during project construction may increase the risk of exposure to the environment, workers, and the public.</p>	<p>the soil. Any site investigations or remedial actions shall comply with applicable laws.</p> <p>3.6-2a: Construction contractor(s) shall be required to implement best management practices (BMPs) for handling hazardous materials during the project. The use of the construction BMPs shall minimize negative effects on groundwater and soils, and will include, without limitation, the following:</p> <ul style="list-style-type: none"> • Follow manufacturers' recommendations and regulatory requirements for use, storage, and disposal of chemical products and hazardous materials used in construction. • Avoid overtopping construction equipment fuel tanks. • During routine maintenance of construction equipment, properly contain and remove grease and oils. • Properly dispose of discarded containers of fuels and other chemicals. <p>3.6-2b: The implementing agencies shall require the construction contractor(s) to implement safety measures in accordance with General Industry Safety Orders for Spill and Overflow Control (CCR Title 8, Sections 5163-5167) to protect the project area from contamination due to accidental release of hazardous materials. The safety measures shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Spills and overflows of hazardous materials shall be neutralized and disposed of promptly. • Hazardous materials shall be stored in containers that are chemically inert to and appropriate for the type and quantity of the hazardous substance. • Containers shall not be stored where they are exposed to heat sufficient enough to rupture the containers or cause leakage. • Specific information shall be provided regarding safe procedures and other precautions before cleaning or subsequent use or disposal of hazardous materials containers. <p>Disposal of all hazardous materials shall be in compliance with applicable California hazardous waste disposal laws. The construction contractor shall contact the local fire agency and the County Department of Public Health, Environmental Health Division, for any site-specific requirements regarding hazardous materials or hazardous waste containment or handling.</p>	<p>Less than significant</p>

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.6-3: The proposed project could result in a safety hazard for people residing or working in the project area in the vicinity of airports.</p>	<p>3.6-2c: In the event of an accidental release of hazardous materials during construction, containment and clean up shall occur in accordance with applicable regulatory requirements.</p> <p>3.6-2d: Oil and other solvents used during maintenance of construction equipment shall be recycled or disposed of in accordance with applicable regulatory requirements. All hazardous materials shall be transported, handled, and disposed of in accordance with applicable regulatory requirements.</p> <p>3.6-2e: The implementing agencies shall require the construction contractor(s) to prepare a Site Safety Plan in accordance with applicable regulatory requirements.</p> <p>3.6-2f: The implementing agencies shall require the construction contractor(s) to prepare and implement a Safety Program to ensure the health and safety of construction workers and the public during project construction. The Safety Program shall include an injury and illness prevention program, as site-specific safety plan, and information on the appropriate personal protective equipment to be used during construction.</p>	<p>Less than significant</p>
<p>3.6-4: The proposed project could interfere with emergency response and evacuation plans during project construction.</p>	<p>Implementation of Mitigation Measure 3.11-1a.</p>	<p>Less than significant</p>
<p>3.6-5: Construction activities in grassland areas would have the potential to expose people or equipment to risk of loss, injury, or death involving wildland fires.</p>	<p>3.6-5a: The implementing agencies shall coordinate with local fire agencies to develop a fire safety plan, which describes various potential scenarios and action plans in the event of a fire.</p> <p>3.6-5b: During construction, all staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be equipped with a spark arrestor in good working order. During the construction of the recycled water backbone, contractors shall require all vehicles and crews working at the project site to have access to functional fire extinguishers at all times. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.</p>	<p>Less than significant</p>

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.6-6: Accidental upset of hazardous materials used during construction of the storage reservoirs and pump stations may increase the risk of exposure to the environment, workers, and the public, resulting in a significant impact.</p> <p>Hydrology and Water Quality</p> <p>3.7-1: Operation of the proposed recycled water pipelines could result in cross contamination of potable water pipelines, which could result in reduced water quality and potential public health concerns.</p>	<p>Implementation of Mitigation Measures 3.6-2a through 3.6-2f.</p>	<p>Less than significant</p>
<p>3.7-1a: Applicable backflow prevention devices, as outlined in Title 17 and the Purple Book, shall be incorporated into pipeline design to avoid potential for cross contamination.</p> <p>3.7-1b: Applicable minimum pipeline separation standards for potable and non-potable water pipelines, as outlined in Title 22, shall be incorporated into pipeline design to avoid potential for cross contamination.</p> <p>3.7-1c: All recycled water pipelines shall be painted purple or marked distinctly with purple tape.</p> <p>3.7-1d: Los Angeles County Department of Public Health (DPH), Cross Connection Control Program for Los Angeles County and the Kern County Department of Public Health in Bakersfield for Kern County shall be advised of each new site where recycled water is to be used prior to placing the site into service.</p> <p>3.7-1e: All recycled water sites shall be inspected and tested for possible cross connections with the potable water system, in accordance with Sections 60314(3) and 60316(a), Title 22, California Code of Regulations.</p> <p>3.7-2: The implementing agencies shall develop and implement BMPs to minimize erosion and sedimentation. The implementing agencies shall include in contractor specifications that the contractor is responsible for developing and implementing the BMPs. The BMPs shall be maintained at the site for the entire duration of construction.</p> <p>The objectives of the BMPs are to identify pollutant sources that may affect the quality of storm water discharge and to implement measures to reduce pollutants in storm water discharges. The BMPs for the proposed project shall include, but not be limited to, the implementation of the following elements:</p> <ul style="list-style-type: none"> • Identification of all pollutant sources, including sources of sediment that may affect the quality of storm water discharges associated with construction activity from the construction site; • Identification of non-storm water discharges; • Estimate of the construction area and impervious surface area; 	<p>Less than significant</p>	
<p>3.7-2: Construction of the proposed recycled water pipelines could result in increased soil erosion and transport of subsequent contaminants and sedimentation, with impacts to water quality. Additionally, accidental release of fuels and other hazardous materials during construction could degrade water quality.</p>	<p>Less than significant</p>	

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.7-3: Construction activities associated with the recycled water pipelines could result in the dewatering of shallow groundwater resources and contamination of surface water.</p>	<ul style="list-style-type: none"> • Preparation of a site map and maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs); • Identification of all applicable erosion and sedimentation control measures, waste management practices, and spill prevention and control measures; • Maintenance and training practices; and, • A sampling and analysis strategy and sampling schedule for discharges from construction activities. 	Less than significant
<p>3.7-4: Construction of the recycled water pipelines could temporarily alter drainage patterns at the construction sites, which could cause localized flooding.</p>	<p>3.7-4: The implementing agencies shall include in contractor specifications that all disturbed areas are to be restored back to pre-construction conditions.</p>	Less than significant
<p>3.7-5: Operation of the pipelines would result in the use of recycled water for municipal and industrial (M&I) applications, which could affect surface and groundwater quality. This could be a potential public health impact.</p>	<p>3.7-5a: The implementing agencies shall require the development and implementation of Recycled Water User Agreements with each recycled water end user. The Agreements shall include provisions that prohibit over-application of recycled water and fertilizer, such as requiring irrigation at agronomic rates to reduce the potential for runoff and increased nutrients into the groundwater basin.</p> <p>3.7-5b: The implementing agencies, in consultation with the Lahontan RWQCB, shall develop and implement a salt management plan, if needed in the future, to reduce the potential for salt and nutrient loading and minimize impacts to water quality in the Antelope Valley groundwater basin.</p>	Less than significant
<p>3.7-6: The use of recycled water for M&I applications could alter drainage patterns or increase local storm water runoff during storm events resulting in localized flooding.</p>	<p>3.7-6: The implementing agencies shall require recycled water end users to cease all irrigation activities during rain events, thereby minimizing off-site runoff.</p>	Less than significant
<p>3.7-7: Construction of the proposed storage reservoirs and pump stations could result in increased soil erosion and transport of contaminants, with impacts to water quality. Additionally, release of fuels or other hazardous materials associated with construction activities could degrade water quality.</p>	<p>Implementation of Mitigation Measure 3.7-2.</p>	Less than significant

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.7-8: Construction and operation of the proposed storage reservoirs and pump stations would increase the amount of impervious surfaces at each site, altering the drainage patterns at each site and resulting in increased local storm water runoff. This could cause localized flooding or contribute to a cumulative flooding impact.</p>	<p>3.7-7: The implementing agencies shall ensure adequately sized and located storm water capture facilities are incorporated into the final design for each storage reservoir and pump station facility.</p>	Less than significant
<p>3.7-9: Placement of storage reservoirs and pump stations within a 100-year flood zone could expose people or property to risks related to flooding.</p>	<p>3.7-8: The implementing agencies shall require flood diversion facilities to be incorporated into each storage reservoir and pump station site and facility design that would not increase flood risk in other areas.</p>	Less than significant
<p>3.7-10: Use of recycled water for agricultural irrigation could potentially affect surface and groundwater quality.</p>	<p>Implementation of Mitigation Measure 3.7-5a and 3.7-5b.</p>	Less than significant
<p>3.7-11: The use of recycled water for groundwater recharge could result in significant water quality impacts if the native groundwater is degraded below existing or acceptable conditions.</p>	<p>3.7-9a: The implementing agencies shall operate recharge projects in compliance with CDPH Title 22 regulations as well as in coordination with the RWQCB. The recharge water shall be a blend of recycled water and diluent water at a ratio consistent with Title 22 regulations and CDPH criteria.</p>	Less than significant
	<p>3.7-9b: The implementing agencies shall develop and implement a monitoring program of the proposed recharge area in compliance with Title 22 regulations and CDPH criteria. As part of this program, some monitoring wells shall be placed between the proposed recharge area and down gradient drinking water supply wells.</p>	
	<p>3.7-9c: The implementing agencies shall require recharged recycled water via surface spreading to remain in groundwater storage for the minimum time period stipulated by CDPH Title 22 Water Recycling Criteria prior to extraction.</p>	
<p>Land Use and Agriculture</p>		
<p>3.8-1: The proposed pipeline could traverse through land controlled by other agencies.</p>	<p>None required.</p>	Less than significant
<p>3.8-2: The proposed pipeline would be constructed within the AIA for Palmdale Regional Airport, General William J. Fox Airfield, and Rosamond Skyport Airport.</p>	<p>3.8-1a: For project components occurring within an AIA, as identified by the ALUP, the implementing agencies shall submit their proposed project plans to the Los Angeles County ALLUC for review and comment prior to final design.</p>	Less than significant
	<p>3.8-1b: Prior to conducting construction activities within an AIA, the implementing agencies shall prepare an airport construction safety plan that would identify best management practices. The plan would include, at a minimum, construction timeframes and hours, lighting and flagging requirements, air traffic control communication requirements, access and egress restrictions, equipment staging area requirements, and personal safety equipment requirements for construction workers, and appropriate notification to aviators. The plan would be reviewed and</p>	

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.8-3: The proposed pipeline would be constructed in the vicinity of three public use airports and potentially affect navigable airspace as defined by FAR Part 77.</p> <p>3.8-4: Construction and operation of the proposed storage reservoirs and pump stations could result in short-term disturbance to some adjacent land uses or result in long-term effects to existing land uses.</p> <p>3.8-5: Construction and operation of the proposed groundwater recharge basins could result in short-term disturbance to some adjacent land uses or result in long-term effects to existing land uses.</p>	<p>approved by airport staff and implemented by both the airport and project construction staff and FAA.</p> <p>3.8-1c: Prior to final design of project components within an AIA, the implementing agencies shall identify the ground elevation associated with each project component and submit their project plans to airport staff for review and comment. Working with airport staff, the implementing agencies shall submit their design plans for airspace analysis (FAA Part 7460 review) to determine whether any of the proposed project components or proposed construction equipment would protrude into protected airspace. If such objects are identified, the implementing agencies, airport staff, and FAA will identify appropriate steps to adjust project plans or include appropriate markings to identify hazards to aviators pursuant to FAA Part 7460.</p> <p>3.8-1d: To prevent the creation of wildlife attractants, the implementing agency should coordinate with construction contractors to ensure that neither project design nor construction plans create temporary or permanent sources of open water, inappropriate seed mixtures, or inappropriate landscaping designs. Notes should be incorporated on construction plans to warn against the creation of potential wildlife hazards.</p> <p>Implementation of Mitigation Measure 3.8-1c.</p> <p>3.8-2: The implementing agencies shall obtain conditional use permits and complete site plan reviews from the appropriate jurisdiction, as necessary, prior to construction of project facilities. The implementing agencies shall also coordinate with FAA regarding the locations and design of proposed reservoirs and pump stations.</p> <p>Implementation of Mitigation Measure 3.2-1a through 3.2-1f and Mitigation Measure 3.11-1a.</p> <p>3.8-3: The implementing agencies shall obtain a conditional use permit or a general plan amendment if necessary from the appropriate jurisdiction prior to construction of groundwater recharge facilities. The implementing agencies shall also coordinate with FAA regarding the locations and design of future recharge basins.</p> <p>Implementation of Mitigation Measure 3.2-1a through 3.2-1f and Mitigation Measure 3.11-1a.</p>	<p>Less than significant</p> <p>Less than significant</p> <p>Less than significant</p>

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>Noise</p> <p>3.9-1: Construction of the proposed recycled water pipeline would intermittently and temporarily generate noise levels above existing ambient levels in the vicinity of those project elements.</p>	<p>3.9-1a: The implementing agencies shall implement procedures to reduce noise generation from project construction activities. Typical noise control procedures include the following:</p> <ul style="list-style-type: none"> • Require construction contractors to comply with the construction hours and days limitations established in local noise ordinances. Night-time construction would require approval from local jurisdictions. • Require all construction contractors to locate fixed construction equipment (e.g., compressors and generators) as far as possible from noise-sensitive receptors. • Equipment used in the construction of individual project components shall be muffled and maintained in good operating condition. Internal combustion engine-driven equipment shall be fitted with intake and exhaust mufflers that are in good condition. • If pile driving is required for facility construction, the contract specifications for those projects shall incorporate the following requirements: <ul style="list-style-type: none"> – Wherever possible, sonic or vibratory pile drivers will be used lieu of impact pile drivers. – Wherever feasible, pile holes will be pre-drilled to reduce potential noise and vibration impacts. <p>Additional noise attenuating measures include changing the location of stationary construction equipment and/or staging areas; notifying adjacent residences and nearby sensitive receptors in advance of construction work; shutting off idling equipment; rescheduling construction activities; requiring on-going construction noise monitoring to assure adherence to City/County construction equipment standards; and/or installing temporary barriers around stationary construction noise sources.</p> <p>3.9-1b: To further address the nuisance impact of project construction, construction contractors shall implement the following:</p> <ul style="list-style-type: none"> • Signs will be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number for the applicable jurisdiction agency in the event of problems. 	Significant and unavoidable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.9-2: Construction of the proposed recycled water pipeline would expose persons to or generate excessive ground-borne vibration or ground-borne noise levels.</p>	<ul style="list-style-type: none"> • An onsite complaint and enforcement manager shall track and respond to noise complaints. <p>3.9-2: When drilling or boring within 25 feet of any building or 50-100 feet of a historical building, a “crack survey” shall be undertaken. The crack survey must be taken before the start of construction with photo, video, or visual inventory of all existing cracks inside and outside buildings with sufficient detail for comparison after construction to determine whether actual vibration damage occurred. The implementing agencies shall be responsible for the costs of any damage caused by construction vibration.</p>	Significant and unavoidable
<p>3.9-3: Construction of the proposed storage reservoirs and pump stations would intermittently and temporarily generate noise levels above existing ambient levels in the vicinity of those project elements.</p>	<p>Implementation of Mitigation Measures 3.9-1a and 3.9-1b.</p>	Significant and unavoidable
<p>3.9-4: Operation of the proposed storage reservoirs and pump stations could result in substantial noise increases in the vicinity of project facilities.</p>	<p>3.9-4: The implementing agencies shall comply with local noise ordinances. In areas where pump and/or stationary equipment operation would cause noise levels to exceed the normally acceptable range for a given land use, the operation of such equipment shall not cause noise levels to increase by 5 dBA CNEL or more. In areas where noise levels already exceed the normally acceptable range for a given land use, the operation of such equipment shall not cause noise levels to increase by 3 dBA CNEL or more. To accomplish these performance standards, the implementing agency shall consider the following:</p> <ul style="list-style-type: none"> • Maximize the buffer area or setback distance between pump facilities and noise-sensitive land uses; • Design stationary equipment and pump enclosures such that building exhaust fans and louvers are oriented away from noise-sensitive uses. To the extent feasible, configure the facility layout such that noise-generating equipment is setback from noise-sensitive land uses; • Incorporate equipment enclosures, fan silencers, mufflers, acoustical treatments at vent openings, acoustical panels, etc. • Construct a perimeter wall at the site such that the line of site between the building openings (exhaust fans and louvers) at the pump facilities and nearby sensitive receptors is effectively blocked. Effective shielding can significantly reduce noise. 	Less than significant
<p>Environmental Justice</p>	<p>None required.</p>	Less than significant
<p>3.10-1: The proposed storage reservoirs and pump stations could cause disproportionate impacts to minority or low income populations.</p>		

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
Transportation and Traffic	<p>3.11-1: Construction of the proposed pipelines could adversely affect traffic and transportation conditions in the project area.</p>	Less than significant
	<p>3.11-1a: The implementing agencies' construction contractor shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the appropriate local jurisdiction prior to construction. The plan shall:</p>	
	<ul style="list-style-type: none"> • Identify hours of construction and hours for deliveries; • Include a discussion of haul routes, limits on the length of open trench, work area delineation, traffic control and flagging; • Identify all access and parking restrictions, pavement markings and signage requirements (e.g., speed limit, temporary loading zones); • Maintain access to residence and business driveways at all times to the extent feasible; Minimize access disruptions to businesses and residences; • Layout a plan for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints; • Include a plan to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times; • Include a plan to coordinate all construction activities with the Antelope Valley Union High School District and Southern Kern Unified School District at least two months in advance. The Antelope Valley Union High School District and Southern Kern Unified School District shall be notified of the timing, location, and duration of construction activities. The implementing agencies shall require its contractor to maintain vehicle, pedestrian, and school bus service during construction through inclusion of such provisions in the construction contract. The assignment of temporary crossing guards at designated intersections may be needed to enhance pedestrian safety during project construction. 	

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
	Also the following provisions shall be met:	
	<ul style="list-style-type: none"> - Pipeline construction near schools shall occur when school is not in session (i.e., summer or holiday breaks). If this is not feasible, a minimum of two months prior to project construction, the implementing agencies shall coordinate with the Antelope Valley Union High School District and Southern Kern Unified School District to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods; - A minimum of two months prior to project construction, the implementing agencies shall coordinate with the Antelope Valley Union High School District and Southern Kern Unified School District to identify alternatives to their Safe Routes to School program, alternatives for the school busing routes and stop locations, and other circulation provisions, as part of the Traffic Control/Traffic Management Plan; 	
	<ul style="list-style-type: none"> • Include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and • Specify the street restoration requirements pursuant to agreements with the local jurisdictions. 	
	<p>3.11-1b: The implementing agencies shall identify all roadway locations where special construction techniques (e.g., horizontal boring, directional drilling or night construction) will be used to minimize impacts to traffic flow.</p>	
	<p>3.11-1c: The implementing agencies shall develop circulation and detour plans to minimize impact to local street circulation, including bikeways. This may include the use of signing and flagging to guide vehicles and cyclists through and/or around the construction zone.</p>	
	<p>3.11-1d: The implementing agencies shall encourage construction crews to park at staging areas to limit lane closures in the public right-of-way.</p>	
	<p>3.11-1e: Peak travel periods shall be avoided when considering partial road closures.</p>	

**TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT**

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.11-2: Construction of the proposed pipeline would have temporary effects on alternative transportation or alternative transportation facilities.</p>	<p>3.11-1f: The implementing agencies shall consult with the Antelope Valley Transit Authority and the East Kern Regional Transit Express that connects to Lancaster at least one month prior to construction to coordinate bus stop relocations (if necessary) and to reduce potential interruption of transit service.</p>	Less than significant
<p>3.11-3: Parking demand would temporarily increase during construction of the proposed pipeline.</p>	None required.	Less than significant
<p>3.11-4: Construction and operation of the proposed pump stations, storage reservoirs, and groundwater recharge basins could adversely affect traffic and transportation conditions in the project area.</p>	Implementation of Mitigation Measures 3.11-1a through 3.11-1f.	Less than significant
<p>Utilities and Service Systems</p>		
<p>3.12-1: Construction of the pipelines could result in temporarily, planned or accidental disruption to utility services.</p>	<p>3.12-1a: The locations of overhead and underground utility lines, such as natural gas, electricity, sewage, storm drains, telephone, fuel, and water lines, shall be verified by contractors through field surveys and other methods prior to construction. In areas where unanticipated underground utilities are found, plans to minimize service impacts shall be developed and worked out with the affected utilities.</p>	Less than significant
<p>3.12-2: Construction activities associated with the pipelines would generate solid waste that would increase the demand for landfill capacity.</p>	<p>3.12-1b: As necessary, detailed specifications shall be prepared as part of the design and engineering plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. Affected utility services shall be notified of construction plans and schedule. Arrangements shall be made with these entities regarding protection, relocation, or temporary disconnection of services.</p> <p>3.12-1c: Residents and businesses in the project area shall be notified of any planned utility service disruption, in conformance with county and state standards.</p> <p>3.12-2a: Project facility design and construction methods that produce less waste, or that produce waste that could more readily be recycled or reused shall be encouraged.</p> <p>3.12-2b: A requirement for the contractor to describe plans for recovering, reusing, and recycling wastes produced through construction, demolition, and excavation activities shall be included in construction specifications.</p>	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE NORTH LOS ANGELES / KERN COUNTY RECYCLED WATER PROJECT

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.12-3: Implementation of the storage reservoirs and pump stations could result in the need for new storm water drainage facilities or expansion of existing facilities.</p>	None required.	Less than significant
<p>3.12-4: Operation of the storage reservoirs and pump stations could result in effects to local and regional energy supplies.</p>	<p>3.12-3: During project design, LACWWD40 and the implementing agencies shall require the use of energy efficient equipment, including pumps and lighting. Project facility design and construction methods that produce less waste, or that produce waste that could more readily be recycled or reused shall be encouraged.</p>	Less than significant
Cumulative Impacts		
<p>4-1: Concurrent construction of several projects in the Antelope Valley could result in cumulative short-term impacts to air quality and water quality.</p>	Implementation of Mitigation Measures 3.2-1a through 3.2-1f, 3.7-2, and 3.7-3.	Less than significant
<p>4-2: Concurrent construction of several projects in the Antelope Valley could result in cumulative short-term impacts to noise.</p>	Implementation of Mitigation Measures 3.9-1a, 3.9-1b and 3.9-2.	Significant and unavoidable
<p>4-3: Concurrent construction of several projects in the Antelope Valley could result in cumulative short-term impacts to traffic.</p>	<p>4-3: The implementing agencies, shall communicate and coordinate project construction activities with other municipalities (e.g., Palmdale, Lancaster, and Rosamond CSD) and agencies (e.g., Caltrans, LA County DPW) in the Antelope Valley. Phasing of project construction shall be coordinated to minimize cumulative impacts to traffic and circulation.</p>	Less than significant
<p>4-4: Concurrent construction of several projects in the Antelope Valley could result in cumulative short-term impacts to biological resources.</p>	Implementation of Mitigation Measures 3.3-1a-f, 3.3-2a-g, 3.3-3a-e, 3.3-4a-c and 3.3-6.	Less than significant
<p>4-5: The proposed project and related projects could result in cumulative long-term impacts to groundwater resources.</p>	Implementation of Mitigation Measures 3.7-5a, 3.7-5b, and 3.7-9a through 3.7-9c.	Less than significant

