DRAFT

Environmental Impact Report

California State Clearinghouse No. 2005041138

Castaic Lake Water Agency

Recycled Water Master Plan

Volume I

Draft Program EIR

Prepared for

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November 2006

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EXECUTIVE SUMMARY

INTRODUCTION

This Executive Summary has been prepared in accordance with Section 15123 of the California Environmental Quality Act (CEQA) Guidelines. This Draft Program Environmental Impact Report (EIR) has been prepared by the Castaic Lake Water Agency (CLWA) to analyze the potential impacts on the environment resulting from the implementation of the 2002 Recycled Water Master Plan (RWMP). The 2002 RWMP is a planning document that updates the 1993 *Draft Reclaimed Water Master Plan* (CLWA 2002a). The 2002 RWMP has been prepared to consider new significant developments affecting recycled water sources, supplies, users, and demands so that CLWA can develop a cost-effective recycled water system. Potential existing and future recycled water users were identified in the 1993 Master Plan and were updated in the 2002 RWMP through contacts with the local purveyors and the City of Santa Clarita. This EIR discusses alternatives to the proposed project and includes a mitigation program that will offset, minimize, or otherwise avoid significant environmental impacts.

The RWMP would be implemented completely within the boundaries of the CLWA service area, which comprises approximately 195 square miles of land in northwestern Los Angeles County and eastern Ventura County. No components of the RWMP would be located in Ventura County. The majority of the RWMP facilities would be located within the City of Santa Clarita. CLWA proposes to develop and construct a recycled water system to serve the Santa Clarita Valley in an attempt to reduce the present and future demands on its potable water supplies. The proposed recycled water system is described in the 2002 RWMP. The development of this recycled water resource is consistent with Chapter 7, Article 7, Section 13551 of the Water Reclamation Law as set forth in the California Water Code. CLWA is the lead agency for the proposed project.

The main source of recycled water would be the Valencia Water Reclamation Plant (WRP), which is owned and operated by the Los Angeles County Sanitation Districts. Other potential sources of recycled water could be supplied to the recycled water distribution system from the Placerita (Berry Petroleum) oil field, the Newhall Ranch WRP, Six Flags Magic Mountain, and the Shangri La dewatering system. All recycled water must meet the water quality standards as set forth in the California Code of Regulations (CCR), Titles 22 and 17. During periods of peak demand, recycled water would also be supplied from aquifer storage and recovery (ASR) facilities. Potential components of the RWMP include the distribution system, eight aboveground water reservoir tanks, one new recycled water pump station at the Placerita oil field, booster pump station(s), and the ASR system. These components of the RWMP are analyzed at the "Program" level in this EIR. As stated in Section 15168(a) of the CEQA Guidelines, a Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

(1) Geographically,

(2) As logical parts in the chain of contemplated actions,

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

If a later activity would have effects that were not examined in the Program EIR, a new initial study would need to be prepared leading to either an EIR or a Negative Declaration. If a

subsequent project is consistent with the description in the Program EIR, then no further CEQA analysis would be required.

Phase 1A of the RWMP is complete. This phase included construction of the 4,000 gallons per minute (gpm) recycled water pump station at the Valencia WRP and 15,600 linear feet (LF) of 20- and 24-inch ductile iron pipe from the Valencia WRP recycled water pump station to Recycled Water Reservoir No. 1 (a 1.5 million gallon (MG) aboveground steel reservoir located near the Westridge Golf Course). Environmental documentation for this phase was completed in 1991 and consisted of two primary documents:

- CLWA's 1988 *Final Program EIR for the Capital Program and Water Plan including Acquisition of Supplemental Water and Proposed Second Plant Site.*
- CLWA's 1991 *Site Specific Mitigated Negative Declaration for Construction of a Reclaimed Water Distribution System.*

The second phase of the RWMP (Phase 1B) includes the construction of the Northwest Spur pipeline, which would be located entirely within the County of Los Angeles on the west side of Interstate 5. The underground pipeline would begin at the Valencia WRP and connect with the existing underground 24-inch ductile iron pipe and would travel northward between The Old Road and the Valencia WRP property for approximately 0.11 mile. The pipeline would then continue northward under The Old Road right-of-way; turn westward under Henry Mayo Drive; and turn northwesterly under the Commerce Center Drive (under SR-126), which includes a bridge over Castaic Creek. The entire length of the proposed pipeline is 2.35 miles. CLWA would also construct and operate three new booster pump stations, one of which would be located within a graded parcel that is located on the west side of the Old Road, approximately one-quarter mile north of Magic Mountain Parkway. Another would be located on the north side of The Old Road immediately to the southeast of the Caltrans service facility and the last would be located on the northeast corner of Henry May Drive and Commerce Center Drive. The Northwest Spur pipeline is evaluated in this Program EIR in greater detail than the remaining later phases of the RWMP because of the greater knowledge of design and construction details.

PROJECT IMPACTS AND MITIGATION MEASURES

Table ES-1 at the end of this section provides a summary of the potential environmental effects of the project, includes the recommended mitigation measures, and identifies any unavoidable adverse impacts. The reader is referred to the full text of this EIR and the technical appendices, for a description of the proposed project's environmental effects and the recommended mitigation measures.

The summary provided in Table ES-1 shows that the proposed project would result in potentially significant impacts to the following topical issues: Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use, Noise, Transportation and Traffic, and Utilities and Service Systems. After implementation of the mitigation program, the following direct impacts would remain significant:

- Air Quality – Emissions of NO_X would exceed SCAQMD thresholds during construction
- Noise – Temporary, construction-related noise impacts would exceed the City of Santa Clarita's Noise Ordinance standards for ambient noise in residential areas.

PROJECT ALTERNATIVES

In accordance with Section 15126.6 of the CEQA Guidelines, Section 7.0 of this EIR includes an analysis of a reasonable range of alternatives that could feasibly attain the basic objectives of the project and evaluates the comparative merits of the alternatives. The implementation of the RWMP and the Northwest Spur Pipeline are considered concurrently in this alternatives analysis. The Northwest Spur Pipeline is a part of the larger RWMP and would not be constructed without approval and adoption of the RWMP. The following alternatives to the proposed project area evaluated in this EIR:

Alternatives Under Consideration

- Alternative 1: No Project
- Alternative 2: Increased Potable Water Deliveries
- Alternative 3: Purchase of Desalinated Water
- Alternative 4A: Reduced Capacity RWMP with Potable Water Deliveries
- Alternative 4B: Reduced Capacity RWMP with Desalinated Water

Alternatives Considered and Eliminated

- Increased use of existing groundwater resources; and
- Increased water conservation to supply the total amount of recycled water that would be available from the RWMP project

AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

CEQA requires an EIR to identify areas of controversy which are known to the lead agency, including issues raised by other agencies and the public. Areas of controversy associated with the proposed project are known through the responses to the Notice of Preparation as well as through an understanding of the issues in the Santa Clarita Valley. Areas of controversy and issues to be resolved include the following:

- Concerns over decrease in effluent discharge to the Santa Clara River and potential impacts of decreased flow to Ventura County
- Impacts to flora and fauna, with emphasis on endangered, threatened, and locally unique species and sensitive habitats
- Direct, indirect, and cumulative impacts to biological resources, including wetlands and riparian and aquatic habitats
- Impacts to water quality due to chloride in the recycled water
- Concerns about the channelization or conversion of watercourses to subsurface drains
- Direct and indirect impacts to recreational facilities
- Possible encroachment into Caltrans right-of-way
- Identification of potential adverse air quality impacts from RWMP construction and operation
- Potential impacts to impaired water bodies and associated total maximum daily loads (TMDLs), increases in runoff, and decreases in percolation

TABLE ES-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
3.1 Aesthetics		
Direct Impact: The operation of the RWMP components has the potential to result in significant impacts to scenic vistas and resources.	MM 3.1-1 Prior to commencement of grading activities for each phase of development, CLWA shall prepare a Landscape Plan that identifies specific measures to reduce the visual impacts associated with the visible aboveground RWMP facilities, including the strategic planting of native trees, shrubs, and other vegetation to buffer the views of the structures.	Less Than Significant
Direct Impact: The operation of the eight reservoir tanks has the potential to result in significant impacts to scenic vistas and resources.	MM 3.1-2 Reservoir tanks and booster pump stations shall be painted with low-reflective paint in a camouflaging color that blends with the surrounding environment.	Less Than Significant
Direct Impact: Construction of the reservoir tanks in the hillside areas has the potential to damage scenic resources, such as trees and vegetation, in open space areas.	MM 3.1-3 Prior to the commencement of grading activities, CLWA's Engineer for the grading and construction of the reservoir tanks shall provide a Grading Plan that incorporates landform grading techniques and minimizes changes to topography. If bench-cuts into hillsides are required to locate some reservoir tanks or other RWMP facilities, then landform grading techniques shall be incorporated that preserve as much of the natural topography as possible and that create cuts which blend into the surrounding hillside areas.	Less Than Significant
Direct Impact: Trees are considered to be scenic resources for the County of Los Angeles, County of Ventura, and the City of Santa Clarita and removal of trees could constitute a significant impact.	MM 3.1-4 Prior to the commencement of grading activities for any component of the RWMP, a qualified Biologist/Arborist shall be consulted to determine the biological/aesthetic value of potentially impacted trees. All impacted native trees shall be replaced at a minimum ratio of 1:1 to mitigate for the loss of biological value, and all impacted ornamental trees shall be replaced at a minimum ratio of 1:1 to mitigate for aesthetic impacts. All impacted trees shall be replaced with appropriate native species at an ultimate ratio to be determined by a qualified Biologist/Arborist.	Less Than Significant
Direct Impact: If construction activities were performed at night in order to minimize traffic impacts, then artificial lighting would be required to illuminate the work area. The distribution system would be installed under major commercial corridors as well as residential streets and would have the potential to create significant temporary impacts due to nighttime lighting.	MM 3.1-5 In order to mitigate for potential impacts due to nighttime lighting for construction activities near sensitive receptors, such as residential homes, construction activities will be restricted to daytime hours on residential streets. For nighttime construction in commercial corridors, the areas of pipeline construction adjacent to walkways or roadways must be well lit and clearly defined at all times to ensure the safety of motorists and pedestrians. Temporary lighting must be directed onto the worksite and avoid any spill-over light or glare onto adjacent properties. Construction activities will comply with encroachment permit requirements and approved traffic control plan requirements.	Less Than Significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
Indirect Impact: There are potential changes to the visual characteristics and resources from development of open space and further urbanization of hillside and natural areas. There is a potential increase in the amount of night lighting and unwanted glare in presently undeveloped areas (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Significant Unavoidable Adverse Impacts
3.2 Agricultural Resources		
Indirect Impact: There is the potential for conversion of agricultural lands to non-agricultural uses or for changes in agricultural zoning by local jurisdictions in order to allow a higher density or intensity of development (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and Piru general and area plans.	Less Than Significant
3.3 Air Quality		
RR 3.3-1	The project shall comply with SCAQMD Rule 1113, which limits the ROG content of architectural coatings used in the Basin or shall allow the averaging of such coatings, as specified, so that actual emissions do not exceed the allowable emissions if all the averaged coatings had complied with the specified limits.	
RR 3.3-2	During clearing, grading, earth moving or excavation operations, excessive fugitive dust emissions shall be controlled by regular water or other dust preventive measures using the following procedures, as specified in the SCAQMD Rule 403. • Limit on-site vehicle speed to 25 miles per hour. • Water or securely cover material transported on-site or off-site sufficiently to prevent generating excessive amounts of dust. • Minimize area disturbed by clearing, grading, earth moving, or excavation operations so as to prevent generating excessive amounts of dust. • Indicate these control techniques in project specifications. Compliance with the measure will be subject to periodic site inspections by CLWA. • Prevent visible dust from the project from emanating beyond the property line, to the maximum extent feasible. • Cease operations during high wind conditions, defined by Rule 403 as instantaneous wind speeds that exceed 25 miles per hour.	
RR 3.3-3	Prior to construction of any RWMP development phase, if a backup generator or engine would be installed that was greater than 50 brake horsepower, then under SCAQMD Rule 201, CLWA shall apply for a Permit To Construct which provides an orderly procedure for the review of new and modified sources of air pollution.	
RR 3.3-4	The project shall comply with SCAQMD Rule 402, which prohibits the discharge from a facility of air pollutants that cause injury, detriment, nuisance, or annoyance to the public or that damage business or property.	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
Direct Impact: Construction-related emissions would exceed the SCAQMD threshold for NOx.	MM 3.3-1 Prior to the approval of the project plans and specifications for any component of the RWMP that has the potential to exceed AQMD daily NO_x significance thresholds, the construction bid packages shall include a separate Diesel Fuel Reduction Plan for the RWMP. This plan shall identify the actions to be taken to reduce diesel fuel emissions during construction activities (inclusive of grading and excavation activities). Reductions in diesel fuel emissions can be achieved by measures including, but not limited to, the following: (a) use of alternative energy sources, such as compressed natural gas or liquefied petroleum gas, in mobile equipment and vehicles; (b) use of "retrofit technology" including diesel particulate traps, on existing diesel engines and vehicles; and (c) other appropriate measures. The Diesel Fuel Reduction Plan shall include the following provisions: • All diesel-fueled off-road construction equipment shall be California Air Resources Board (CARB) certified or use post-combustion controls that reduce pollutant emissions to the same level as CARB-certified equipment. CARB-certified off-road engines are engines that are three years old or less and comply with lower emission standards. Post-combustion controls are devices that are installed downstream of the engine on the tailpipe to treat the exhaust. These devices are now widely used on construction equipment and are capable of removing over 90 percent of the PM10, carbon monoxide, and volatile organic compounds from engine exhaust, depending on the specific device, sulfur content of the fuel, and specific engine. The most common and widely used post-combustion control devices are particulate traps (i.e., soot filters), oxidation catalysts, and combinations thereof. • All diesel-fueled on-road construction vehicles shall meet the emissions standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used or older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible. • The effectiveness of the latest diesel emission controls is highly dependant on the sulfur content of the fuel. Therefore, diesel fuel used by on-road and off-road construction equipment shall be low sulfur (>15 ppm) or other alternative low polluting diesel fuel formulation.	There would be significant unavoidable direct impacts to air quality related to exceedance of NOx emissions during construction. There would be no significant unavoidable direct impacts to air quality from operation of the proposed project.
Indirect Impact: There is a potential increase in air pollutant emissions from transportation and development (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans. Also reduced by compliance with SCAQMD plans	Significant Unavoidable Adverse Impacts

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
3.4 Biological Resources		
RR 3.4-1 Prior to the construction of any phase or component of the RWMP that involves impacting drainages, streams, or wetlands through filling, stockpiling, conversion to a storm drain, channelization, bank stabilization, road or utility line crossings, or any other modification to a jurisdictional drainage, a jurisdictional delineation shall be conducted. Any jurisdictional impacts will require permits from the USACE, the RWQCB, and the CDFG before any development could commence. Both permanent and temporary (construction-related) impacts are regulated and would therefore trigger the need for permits. Compensatory mitigation for the loss of wetland or riparian function and values is a fundamental component of the applicable regulatory programs.		
Direct Impact: Because the locations of many RWMP components are conceptual, the implementation of the RWMP has the potential to result in significant impacts to special status vegetation types, including riparian habitats under the jurisdiction of the CDFG, special status plant species, and special status wildlife species. Construction of the RWMP components also has the potential to impact nesting raptors and birds.	MM 3.4-1 As each component of the RWMP is brought forward for implementation (with the exception of the Northwest Spur Pipeline), a Biological Reconnaissance Survey will be conducted by a qualified Biologist to map and determine the extent and location of all special status vegetation types, to assess the suitability for special status plant and wildlife species and to conduct focused surveys at the appropriate time of year if suitable habitat is present within or adjacent to the proposed impact area. Surveys will definitively determine the absence or the presence and location of all special status plant species. If present, an assessment of the potential impacts will be conducted. If potentially significant impacts are assessed, the CLWA will attempt to avoid, or minimize if not possible to avoid, the impacts by adjusting the location of the proposed pipeline alignment or reservoir location. For unavoidable impacts, a mitigation plan shall be prepared and implemented to offset such impacts. Impacted special status vegetation types will be restored on site. A revegetation program will be implemented in accordance with an appropriate, agency-approved landscape palette developed for the region on all graded areas not utilized for improvements or structures. Restoration will consist of seeding and planting containers of appropriate species. For those special status plant species that may be replanted, a pre-construction survey during the peak flowering period will be conducted by the Project Biologist. The limits of each plant or plant population location within the impact area will be clearly delineated with lath and brightly colored flagging. If the plant is located in the impact area, the loss will be mitigated by seed and bulb collection, if appropriate (depending on the growth type of the species), and revegetated onto a suitable mitigation site in the vicinity. A detailed revegetation and special status plant restoration program will be developed and implemented and will contain the following items: responsibilities and qualifications of the personnel to implement and supervise the plan; site selection; site preparation and planting implementation; schedule; maintenance plan/guidelines; monitoring plan; long-term preservation; and performance standards. Restored areas shall be designated as open	Less Than Significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	space and shall be protected from development in perpetuity. In addition, if a potentially impacted species is state-or federally listed as Threatened or Endangered, the CDFG and/or the USFWS will be consulted and a permit application will be submitted. The requirements of the mitigation, as set forth by the appropriate agency, will be adhered to. At a minimum, the construction period will be scheduled to avoid the breeding season of such species, year-long residents shall be relocated if feasible, and loss of habitat will be replaced at a minimum ratio of 1:1. In an effort to avoid or minimize impacts to nesting birds, 7 days prior to the onset of construction activities, a qualified Biologist will survey within 500 feet of the current project component impact area for the presence of any active raptor nests (common or special status). Any nest found during survey efforts will be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys will be provided to the CDFG.	
Direct Impact: Because the locations of many RWMP components are conceptual, the implementation of the RWMP has the potential to result in significant impacts to biological resources.	MM 3.4-2 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 applicant will submit a letter to the appropriate agencies verifying that construction limits have been flagged in the field. No earth-moving equipment will be allowed within the open space areas.	Less Than Significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
Direct Impact: Construction of the RWMP components has the potential to impact nesting raptors and birds. Because the locations of many RWMP components are conceptual, the implementation of the RWMP has the potential to result in significant impacts to drainages/streams and associated habitats that may be under the jurisdiction of the CDFG and USACE.	MM 3.4-3 The most noise-intensive portions of construction (i.e., asphalt scraping or pounding) shall be conducted outside the bird nesting season (March 15 to September 15) to avoid disturbance of nesting special status bird species. If construction cannot be avoided during this time period, construction will be limited in the vicinity of nests per the recommendations of a qualified Biologist. In addition, temporary disturbance within Castaic Creek shall occur outside the breeding season of those special status wildlife species that potentially occur in the impact area and during periods of no surface water flow. Construction shall essentially be limited to the months of July, August, September, and October with August and September being the preferable months for construction. No night lighting or nighttime construction shall be allowed within Castaic Creek. If listed species are determined to be present in the vicinity, a Noise Monitoring Program will be implemented during the nesting season of that particular species.	Less Than Significant
Indirect Impact: There could be conversion and degradation of habitat; reduction/local extinction of local native plant and wildlife populations, including sensitive species; introduction of invasive non-native species; disruption of established wildlife corridors and native wildlife nursery sites; impacts on sensitive fish and amphibian populations due to wastewater discharge and polluted runoff; conflicts with local policies and ordinances that protect biological resources (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans. State and federal regulatory agencies permit conditions may reduce significant impacts.	Significant Unavoidable Adverse Impacts
3.5 Cultural Resources		
RR 3.5-1	The Northwest Spur Pipeline crosses State Route 126, which is within the jurisdiction of the State of California Department of Transportation (Caltrans). Therefore, a copy of the Cultural Resources Technical Report shall be submitted to Caltrans as supporting documentation in conjunction with the Encroachment Permit Application Request. The submittal of this report with the Encroachment Permit Application Request will streamline the permitting process and may eliminate the need for a Caltrans-format Archeological Survey Report and/or a Historic Properties Survey Report. If additional information is requested by Caltrans, the CLWA will provide all required information to Caltrans' satisfaction.	
RR 3.5-2	If human remains are encountered during ground-disturbing activities for any of the RWMP components, the Los Angeles County Coroner's Office shall be notified immediately, and all activities in that area must cease until lawful measures have been implemented. If the Coroner determines that the remains are prehistoric, the NAHC (Native American Heritage Commission) must also be contacted under state law. The NAHC will designate a Most Likely Descendent (MLD) who will make procedural determinations concerning disposition of the remains.	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
Direct Impact: Because the locations of many RWMP components are conceptual, the implementation of the RWMP has the potential to result in significant impacts to cultural resources.	MM 3.5-1 Prior to implementation of any RWMP component that involves ground disturbance in native soils (with the exception of the Northwest Spur Pipeline), the CLWA will arrange for the completion of a Phase I Cultural Resources Assessment by a qualified Cultural Resources Professional. The qualified Cultural Resources Professional shall meet the Secretary of the Interior's professional qualification standards (36 Code of Federal Regulations 61). The Phase I Cultural Resources Assessment for each subsequent RWMP phase may include, but not be limited, to the following tasks, per the recommendations of the Archaeologist: • An archaeological/historical/cultural resources records search shall be conducted at the South Central Coastal Information Center (SCCIC), located at the California State University, Fullerton to identify potential impacts that may be caused by the project. • Consultation shall occur with the Native American Heritage Commission (NAHC) in Sacramento regarding the possibility of special Native American sites that may be located in the vicinity of any project components shall be conducted. Consultation shall occur with local Native American representatives with knowledge regarding Native American sites in the project area and shall be contacted in regard to each construction phase if the qualified Cultural Resources Professional determines that there is the potential to impact Native American resources. • A field survey by the appropriate qualified Cultural Resources Professional shall be conducted. A qualified Archaeologist shall be retained to visually examine the ground surface for evidence of prehistoric (Native American) or historic (non-Native American) archaeological materials, or other potential historic features (e.g., structures, bridges, mines, or wells), in areas where ground disturbance is proposed in native soils. • Any identified buildings or structures that may be over 45 years of age that may be impacted by the project shall be examined by a qualified Architectural Historian and the Historian's recommendations shall be implemented accordingly. Any previously unknown resources that are identified during the surveys shall be recorded on State of California Department of Parks and Recreation 523 Forms to meet CEQA and OHP (Office of Historic Preservation) standards.	Less Than Significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	• A paleontological records search and literature review shall be conducted for each subsequent phase of the RWMP project site that will require any ground disturbance in native soils to determine if the project will have any impacts to any significant paleontological resources. • The results of any additional Phase I Cultural Resource Studies shall be documented in a technical report prepared according to Archaeological Resource Management Report (ARMR) guidelines and OHP standards. Any impacts that cannot be avoided shall be mitigated according to the recommendations of the Phase I Cultural Resources Assessment.	
Direct Impact: Construction activities associated with the Northwest Spur Pipeline have the potential to impact the marker for California Historical Landmark No. 556, which would be a significant impact.	MM 3.5-2 Prior to initiation of Northwest Spur Pipeline construction activities in the vicinity of the marker for California Historical Landmark (CHL) No. 556, at the southwest corner of the intersection of The Old Road and State Route 126, temporary fencing shall be installed around the marker at a radius of no less than 20 feet in order to protect the marker from adverse effects of construction of the pipeline beneath the nearby roadway. No construction activities or storage areas shall occur within the fenced area. The fencing shall not be removed until construction activities in the vicinity of the marker for CHL No. 556 are complete.	Less Than Significant
Direct Impact: Ground-disturbing activities have the potential to impact archaeological resources, which would be a significant impact.	MM 3.5-3 If potential archaeological or paleontological resources are inadvertently discovered during ground-disturbing activities for any of the RWMP components, work in that location shall be temporarily diverted and a qualified specialist (Archaeologist or Paleontologist) shall be contacted immediately to evaluate the find.	Less Than Significant
Direct Impact: Construction of the Northwest Spur Pipeline has the potential to impact paleontological resources, which would be a significant impact.	MM 3.5-4 A qualified Paleontologist shall be retained during initial ground-disturbing activities for the Northwest Spur Pipeline to determine if the proposed trenching will extend into the older, fossil-bearing Quaternary soils and to develop a monitoring program. The monitoring program shall include recovery, preparation (to a point of identification), and cataloguing of fossil materials. Any fossils that are collected shall be placed in an accredited repository for curation.	Less Than Significant
Indirect Impact: There is potential for disturbance of human remains, archaeological, historical, and paleontological resources by excavation and grading activities associated with future development (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
Indirect Impact: There is potential for disturbance of human remains, archaeological, historical, and paleontological resources by excavation and grading activities associated with future development (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.6 Geology and Soils		
Direct Impact: Implementation of the RWMP has the potential to create hazards from seismic ground shaking and liquefaction, expansive soils, and any other soil instabilities.	MM 3.6-1 For all RWMP phases of development, a Geotechnical Engineer shall be consulted to develop a Hydrogeological/Soils Analysis Report. Prior to and during construction activities for all components of the RWMP, the recommendations of the Geotechnical Consultant shall be followed. These recommendations would include component-specific design specifications for minimizing or avoiding impacts associated with strong seismic ground shaking and liquefaction, expansive soils, and any other soil instabilities.	Less Than Significant
Direct Impact: Implementation of the RWMP has the potential to result in a loss of topsoil due to grading/excavations.	MM 3.6-2 During construction activities, excavated topsoil shall be salvaged, stockpiled, and subsequently placed over fill areas to assist in revegetation and to minimize erosion and loss of topsoil. The use of any excavated soils must be deemed appropriate by the contracted Geotechnical Consultant for use as backfill material.	Less Than Significant
Indirect Impact: There are potential impacts from: geologic hazards, including fault rupture; seismically induced ground failure and seiches; and permanent changes on topography, loss of topsoil, and removal of unique geologic features (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.7 Hazards and Hazardous Materials		
RR 3.7-1 The CLWA shall comply with all applicable federal, state, and local regulations pertaining to the handling, use, and disposal of hazardous substances as well as all applicable mandates that require the development and implementation of hazardous material-related plans (e.g., Business Plans, Emergency Response Plans, Risk Management Plans, Hazardous Waste Management Plans, Injury and Illness Prevention Plans). The project may require various plans to be modified in order to accommodate the risks associated with new hazardous materials and facilities that would be prepared in accordance with applicable regulations. Any applicable hazardous waste materials shall be transported by a properly licensed Hazardous Waste Hauler, who must be in compliance with the Department of Transportation regulations under Title 49 CFR 171–179 and under 40 CFR 263 (Subtitle C of RCRA).		

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
Direct Impact: Implementation of the RWMP has the potential to create construction activities in High Fire Hazard Zones.	MM 3.7-1 Prior to commencement of construction activities within designated High Fire Hazard Zones, the Fire Department shall be contacted regarding weed/brush removal in the project vicinity. All flammable weeds/brush within a radius specified by the Fire Department shall be removed. During construction activities, the project site shall be equipped with fire-fighting equipment, such as fire extinguishers, to the satisfaction of the Fire Department.	Less Than Significant
Indirect Impact: Previously contaminated sites may require the removal or remediation of soils before development. There is a potential increase in transport, use, and disposal of hazardous materials, along with increased risks of hazardous substance releases. There is also the potential for impairment of emergency response plans or emergency evacuation plans and increased public exposure to wildland fires (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.8 Hydrology and Water Quality		
RR 3.8-1	Prior to the commencement of grading activities for construction of each of the proposed project components, the CLWA shall determine whether or not the construction activities are required to obtain coverage under the NPDES (National Pollutant Discharge Elimination System)General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ) or the NPDES General Permit for Storm Water Discharges Associated with Construction Activity from Small Linear Underground Projects (Water Quality Order 2003-0007-DWQ). If the project component meets the criteria for coverage under either of these two NPDES permits, then the CLWA will be responsible for filing a Notice of Intent, an SWPPP (if applicable), and the appropriate fees to the State Water Resources Control Board, Division of Water Quality in order to obtain coverage under the applicable NPDES permit. Pursuant to the permit requirements, the CLWA shall minimize construction-related pollutants, including erosion-related sediment, in the site runoff through the implementation of Best Management Practices.	
RR 3.8-2	Prior to commencement of any pipeline construction activities, the CLWA shall determine whether or not the construction activities are required to obtain coverage under and comply with all requirements of LARWQCB (Los Angeles Regional Water Quality Control Board) Order No. R4-2004-0109 "Waste Discharge Requirements for Discharges of Low Threat Hydrostatic Test Water to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties", which is General NPDES Permit No. CAG674001. If the project meets the criteria for coverage under this NPDES permit, then the CLWA will be responsible for full compliance with the requirements of the permit.	
RR 3.8-3	The Recycled Water Master Plan shall be implemented in compliance with all applicable federal, state and local regulations, including the California Water Code, CCR Title 22, CCR Title 17, DHS (Department of Health Services) Guidelines, and the Los Angeles County Department of Health Services Cross-Connection and Water Pollution Control Program.	
RR 3.8-4	All reservoir tanks shall be located and designed to be in compliance with the Uniform Building Code (or local codes and conditions if they are more stringent), American Water Works Association, and American National Standards Institute specifications to ensure that reservoir tank construction would be designed to withstand potential seismic activity.	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
RR 3.8-5 The operation of ASR facilities must comply with all applicable state and federal groundwater recharge regulations, including the future Title 22 "Groundwater Recharge Reuse" regulations should they be adopted, which are in draft form and are currently proposed by the California Department of Health Services.		
RR 3.8-6 The CLWA shall include additional chlorination capacity, if necessary, or relocate the compliance point for disinfection, to ensure that the recycled water supply is adequately chlorinated and in compliance with Title 22 requirements for the disinfection of tertiary recycled water prior to delivery to customers.		
Direct Impact: Use of the aquifer storage and recovery system could result in water quality impacts to groundwater supplies.	MM 3.8-1 Prior to the implementation of any components of the RWMP that are contingent upon the availability of a functioning ASR facility, a hydrogeology analysis and/or water quality analysis of the proposed location of the ASR facility shall be conducted. In order for the ASR facility to be implemented, the findings of the geotechnical investigation and/or water quality analysis must conclude that the injection of recycled water into the ASR facility would not have the potential to impact the water quality of the potable water supplies of the Saugus Formation or the Alluvial Aquifer, or other groundwater supplies designated as a potential source of domestic water supply.	Less Than Significant
Direct Impact: Potential use of an above ground recycled water lagoon/pond/lake could result in groundwater quality impacts.	MM 3.8-2 Prior to the commencement of construction of an aboveground recycled water lagoon/pond/lake, a technical analysis of potential impacts on groundwater quality would be required. The technical analysis must take into consideration the existing groundwater and soil characteristics in the project area and recommend mitigation measures to reduce potential groundwater impacts to less than significant, if necessary.	Less Than Significant
Indirect Impact: There is the potential for increased demand on local groundwater resources during periods of reduced SWP deliveries, which could result in substantial short-term stressing of groundwater supplies. There is also the potential for alteration of surface flows, reduction of aquifer recharge, and increased amount and rate of stormwater runoff. Increases in polluted surface runoff could decrease water quality in surface waters. Increased flooding and peak flow rates could result in substantial erosion or siltation on or off site.(Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
3.9 Land Use and Planning		
Indirect Impact: There is potential for division of a community or a conflict with adopted land use plans (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.10 Mineral Resources		
Indirect Impact: There is potential loss of known mineral resources or locally important mineral resources that would be of value to the region, state, or local areas (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.11 Noise		
RR 3.11-1 For facilities being constructed within the County of Los Angeles, the Construction Contractor shall limit exterior construction-related activities to the hours of 7:00 AM and 7:00 PM on weekdays and Saturdays. Construction shall not occur on Sundays or federal holidays and shall be conducted in compliance with the County Code, Chapter 12.08 Noise Control. Operation of all RWMP components shall be in compliance with the County Code, Chapter 12.08, Noise Control.		
Direct Impact: Implementation of the RWMP has the potential to temporarily increase ambient noise and create noise impacts to sensitive receptors.	MM 3.11-1 For facilities being constructed within the City of Santa Clarita, the Construction Contractor shall limit exterior construction–related-activities to the hours of 7:00 AM and 7:00 PM Monday through Friday, and 8:00 AM and 6:00 PM on Saturday. Construction shall not occur on Sundays or Federal holidays. Operation of all RWMP components shall be in compliance with the City's Municipal Code, Chapter 11.44, Noise Limits.	There would be significant unavoidable direct impacts to noise due to temporary construction-related increases in ambient noise adjacent to sensitive receptors. There would be no significant unavoidable direct noise impacts due to operation of the proposed project.
	MM 3.11-2 The Contractor shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Where possible, noise-generating equipment shall be shielded from nearby noise-sensitive receptors by noise-attenuating buffers. Stationary noise sources located less than 500 feet from noise-sensitive receptors shall be equipped with noise-reducing engine housings. Portable acoustic barriers shall be placed around noise-generating equipment that is located less than 200 feet from noise-sensitive receptors.	
	MM 3.11-3 The Contractor shall assure that construction equipment powered by gasoline or diesel engines has sound-control devices at least as effective as those provided by the Original Equipment Manufacturer (OEM). No equipment shall be permitted to have an unmuffled exhaust.	
	MM 3.11-4 The Contractor shall assure that noise-generating mobile equipment and machinery are shut-off when not in use.	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	MM 3.11-5 Residences within 500 feet of a construction area shall be notified of the construction schedule in writing prior to construction. The CLWA and the Contractor shall designate a Noise-Disturbance coordinator who would be responsible for responding to complaints regarding construction noise. The Coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the Noise-Disturbance Coordinator shall be conspicuously placed on construction site fences and written into the construction notification schedule sent to nearby residences.	
	MM 3.11-6 Pump stations located within 150 feet of sensitive receptors (i.e., residential homes, schools, or hospitals) shall have a noise study conducted to verify that the design will meet the City or County noise standards. Note that these noise limitations are for steady-state, base load operations, and exclude startups, shutdowns, and off-normal or emergency conditions.	
Indirect Impact: There are potential short-term increases from construction and grading activities, increase in traffic-related emissions, and changes in land uses (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.12 Population and Housing		
Indirect Impact: There is a potential increase in population and housing (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.13 Public Services		
Indirect Impact: There is a potential increase in demand for public facilities and services (police, fire, schools, and library services) (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant
3.14 Recreation		
Indirect Impact: There is a potential increase in demand for recreational resources (Growth-related impact).	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Less Than Significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
3.15 Transportation/Traffic		
RR 3.15-1 Prior to commencement of construction activities on any phase of the RWMP that would impact Caltrans right-of-way jurisdiction, a Caltrans Encroachment Permit shall be obtained. A standard Caltrans Encroachment Permit application along with six sets of Engineering Plans will be required for Caltrans review and approval. A Construction Management Plan will be written for any lane closures, detours, or parking restrictions within Caltrans right-of-way and provided to Caltrans for approval. Transport of over-sized or over-weight vehicles on state highways will require a Caltrans Transportation Permit.		
Direct Impact: Construction activities have the potential to temporarily impact traffic and circulation.	MM 3.15-1 Prior to construction activities for any phase of the RWMP that would require the diversion of traffic, the CLWA shall prepare a Traffic Control Plan and implement construction zone traffic control measures in compliance with the Work Area Traffic Control Handbook (WATCH) Manual or the Manual on Uniform Traffic Control Devices (MUTCD) standards. If the project construction requires special measures outside the WATCH Manual or MUTCD standards, then the Traffic Control Plan shall be prepared by, stamped, and signed by a registered Traffic Engineer.	Less Than Significant
Direct Impact: Construction activities have the potential to temporarily impact parking availability in the vicinity of the project area.	MM 3.15-2 Prior to commencement of construction activities on any phase of the RWMP that would require substantial amounts of Construction Worker parking for long periods of time, the CLWA shall consult with the applicable jurisdiction (City of Santa Clarita or County of Los Angeles) about the availability of off-site parking. When feasible and appropriate, Construction Worker parking shall be consolidated in an off-site location and workers shall be shuttled to the worksite to minimize parking impacts near the work site(s).	Less Than Significant
Indirect Impact: Potential increase in traffic and need for new or altered roads, highways, and transportation systems in the Santa Clarita Valley (Growth-related impact)	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Significant Unavoidable Adverse Impacts

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
3.16 Utilities and Service Systems		
Direct Impact: Construction activities would produce debris that would impact solid waste facilities.	MM 3.16-1 The disposal of all construction debris from the implementation of the RWMP shall be conducted in accordance with County of Los Angeles and City of Santa Clarita codes and ordinances related to the disposal of construction and demolition debris, including Los Angeles County Code, Chapter 20.87 – Construction and Demolition Debris Recycling and Reuse.	Less Than Significant
Indirect Impact: There is a potential increase in wastewater generation and demand for wastewater treatment; and a potential need for new stormwater drainage facilities or the expansion of existing facilities. There is also potential for increased demand for solid disposal services and increased need for potable water treatment.	Reduced by local governments implementing the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans.	Significant unavoidable adverse impacts to wastewater treatment and landfill capacity, unless additional capacity is constructed and approved.

SECTION 1.0 INTRODUCTION

1.1 OVERVIEW

The Castaic Lake Water Agency (CLWA) was formed in 1962 as a State Water Project Contractor to provide wholesale water supply from the State Water Project (SWP) to retail water purveyors in the Upper Santa Clara River area. Four retail water purveyors receive water from CLWA: Newhall County Water District (NCWD), Los Angeles County Waterworks District No. 36 (LACoWD36), Santa Clarita Water Company (SCWC), and Valencia Water Company (VWC).

The CLWA service area consists of incorporated and unincorporated areas Los Angeles County and a small portion of eastern Ventura County. No components of the proposed project would be located in Ventura County. The CLWA service area encompasses all existing and currently planned municipal water service areas of the Upper Santa Clara River area (i.e., the suburban areas generally proximate to the Santa Clara River in Los Angeles County), generally between the hills of the San Gabriel Mountains and the Santa Susana Mountains on the north and south, and between the Los Angeles/Ventura County line and Lang Station on the west and east, respectively. The extent of the CLWA service area and the geographical locations of the individual water purveyors are illustrated in Figure 1-1.

In 1993, the CLWA prepared a *Draft Recycled Water System Master Plan* (1993 Master Plan) that outlined a multi-phase program to integrate recycled water into the overall water supply system in the CLWA service area. Phase I of the 1993 Master Plan, which was estimated to deliver approximately 1,700 acre-feet per year (af/yr), began deliveries of recycled water for golf course irrigation in mid-2003.

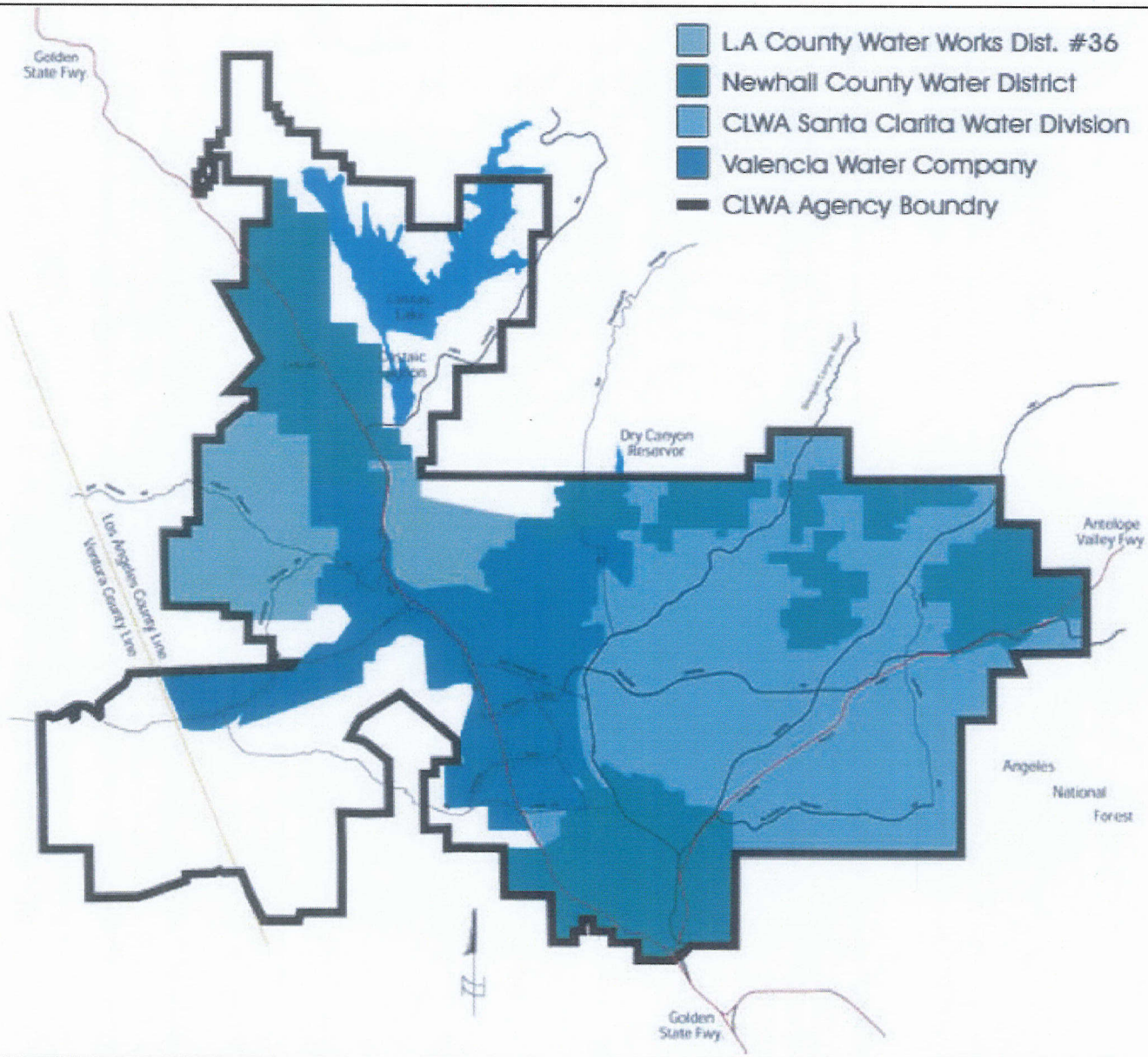
The proposed project is the implementation of the 2002 Recycled Water Master Plan (RWMP), as detailed in the *Draft Report Recycled Water Master Plan* completed in May 2002 by Kennedy/Jenks Consultants. The RWMP is a planning document that updates the 1993 *Draft Reclaimed Water Master Plan* in order to consider new opportunities that affect recycled water sources, supplies, users, and demands so that CLWA can develop a cost-effective recycled water system.

The RWMP is also a component of the CLWA's *Urban Water Management Plan* (UWMP), most recently updated in November 2005. The 2005 UWMP forecasts a total potential annual recycled water demand of approximately 17,400 af/yr by the year 2030 (CLWA 2005c). The RWMP estimates that up to 17,441 af/yr of recycled water would be available for landscape irrigation, industrial processes, and other non-potable uses. The 2005 UWMP refined the forecasted availability of recycled water based on more current information, and anticipates that the total potential annual recycled water demand will be approximately 17,400 af/yr by the year 2030. Therefore, for the purposes of this analysis, it is assumed that implementation of the RWMP would enable the reclamation of 17,400 af/yr, consistent with the recently updated UWMP.

1.2 PROJECT OBJECTIVES

The objectives of the RWMP are as follows:

- To satisfy the legislative mandates, as set forth in the Water Recycling Act of 1991, which encourage the production and use of recycled water through the established statewide goal of recycling a total of 700,000 af/yr of water by the year 2000 and 1,000,000 af/yr by the year 2010.



CLWA Service Area and Water Purveyor Boundaries

Figure 1-1

CLWA Recycled Water Master Plan

Source: Castaic Lake Water Agency Website, May 2005

BonTerra CONSULTING

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- To conserve potable water supplies by making recycled water available for various non-potable uses, including irrigation, industrial processes, and recreational enhancement, where feasible and appropriate.

- To develop a cost-effective system for the delivery of recycled water.

- To create a recycled water system that can produce enough water to meet the recycled water demands of its existing and future customers.

1.3 INTENDED USES OF THIS ENVIRONMENTAL IMPACT REPORT

This Environmental Impact Report (EIR) evaluates the potential environmental impacts of the implementation of the Recycled Water Master Plan (RWMP), as detailed in the *Draft Report Recycled Water Master Plan* completed in May 2002 and prepared by Kennedy/Jenks Consultants (CLWA 2002a).

These actions are referred to as "the project" in subsequent sections of this EIR. The project is intended to meet recycled water demands of both existing users and from anticipated growth within the CLWA service area. CLWA is not a land use approval agency and has no control over where and when growth will occur within its service area. To the extent that land use decision-makers utilize or rely on this EIR to predict future CLWA water supplies, they are cautioned that although CLWA will implement all feasible measures to firm up its water supplies, previous water deliveries are not a guarantee of future delivery rates. Rather than repeat this advice to decision-makers in each section of the EIR, the reader is requested to keep this advice in mind when reading the information about the availability and reliability of water supplies wherever such information appears. Information regarding water supplies is presented throughout this document as it relates to the CLWA service area, the Project Description (Section 2.0), and Growth-Inducing Effects and Growth-Related Impacts (Section 4.0). To facilitate reading of this EIR, it is suggested that the reader refer to Section 10.0, List of Acronyms and Glossary of Terms. The acronyms used in this EIR are defined the first time they are used in the text.

The California Environmental Quality Act (CEQA) requires preparation of an EIR when an agency action is believed to have a potential for significant impacts to the environment. An EIR is "a public document used by the governmental agency to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid the possible environmental damage" (14, CCR 15002). An EIR serves as an informational document for decision-makers and the general public alike.

The CLWA has determined that the preparation of a Program Environmental Impact Report would be the most appropriate environmental document for the evaluation of impacts associated with the implementation of the RWMP. As stated in Section 15168(a) of the CEQA Guidelines, a Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

(1) Geographically,

(2) As logical parts in the chain of contemplated actions,

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The CEQA Guidelines state that:

> use of the Program EIR also enables the Lead Agency to characterize the overall program as the project being approved at that time. Following this approach when individual activities within the program are proposed, the agency would be required to examine the individual activities to determine whether their effects were fully analyzed in the Program EIR. If the activities would have no effects beyond those analyzed in the Program EIR, the agency could assert that the activities are merely part of the program which had been approved earlier, and no further CEQA compliance would be required. This approach offers many possibilities for agencies to reduce their costs of CEQA compliance and still achieve high levels of environmental protection.

The RWMP has numerous components, the construction of which will be phased over time to utilize the increases in WRP production. The phasing of the RWMP, as described above, would allow for some components of the RWMP to be comprehensively evaluated in the Program EIR pursuant to CEQA due to their near-term implementation schedule, while other components would be evaluated more generally. The depth of the environmental analysis for each project component is summarized in Section 2.0, Project Description.

The CLWA is the lead agency for preparation of the EIR and thus will evaluate, and if appropriate, certify this EIR, make CEQA Findings, and approve the project. The CLWA has the principal responsibility for carrying out and implementing the project because (1) the project occurs within CLWA's jurisdiction and substantially affects the CLWA; (2) the CLWA has been the lead proponent of the project and has assumed the primary task of implementing the Recycled Water Master Plan; (3) the CLWA has the expertise to implement the project; and (4) the project does not implicate the entire statewide water rights or supply framework.

The EIR would be used by CLWA and other agencies with decision-making authority over the project to identify potential significant environmental impacts of the project, proposed mitigation that would reduce significant impacts to less-than-significant levels, and if applicable, any unavoidable significant impacts that would result from the project and/or cumulatively from other projects. In addition, project alternatives are considered and evaluated. All documents referenced in this EIR are available for public inspection at the CLWA offices at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350, (661) 297-1600.

1.3.1 RELATED ENVIRONMENTAL DOCUMENTATION

In 1991, a Mitigated Negative Declaration (MND) was completed and approved for the construction of Phase I and Phase II of the distribution system for the RWMP. This portion of the RWMP was previously approved through the following CEQA document:

- *Proposed Site-Specific Mitigated Negative Declaration Tiered Upon Prior County and Agency Completed EIR's – Construction of a Reclaimed Water Distribution System*, Castaic Lake Water Agency, Prepared By Kennedy/Jenks/Chilton, January 1991.

This environmental document was tiered upon three EIRs previously adopted by the CLWA and/or other agencies. These EIRs include the following:

- *Capital Program and Water Plan Including Acquisition of Supplemental Water and of a Proposed Second Plant Site* (SCH No. 87123012), Prepared for CLWA, April 1988.

- *Amendment of the Projections of Population, Housing and Employment, County of Los Angeles General Plan Sub-Plan Amendment 87-275* (SCH No. 87040811), Prepared for County of Los Angeles, November 1987.

- *Santa Clarita Valley Area Plan Comprehensive Update Sub-Plan Amendment 89363-5* (SCH No. 89010293), Prepared for Los Angeles County Department of Regional Planning, May 1990.

The MND evaluated the construction of a recycled water distribution system that could deliver 1,700 af/yr to recycled water users. The scope of the project included connections to the Valencia Water Reclamation Plant, installation of approximately 18,000 linear feet (LF) of pipeline along the northwestern portion of the City of Santa Clarita, and construction of a 3.1 million gallon (MG) aboveground storage tank.

Deliveries of recycled water began in September 2003 for irrigation water supply at the 96-acre Westridge Golf Course and in the roadway median strips. In 2003, a total of 16.19 MG (49.7 acre feet) of recycled water was used at this site. The total recycled water use in 2003 was approximately 700 acre-feet (af), which represents the initiation of Phase I of the RWMP. The components of Phase I include the capacity to deliver 1,700 af of recycled water per year (CLWA 2004e).

1.4 PUBLIC INVOLVEMENT PROCESS

As required by Public Resources Code (PRC) Section 21080.4 and State CEQA Guidelines Section 15082, the CLWA (lead agency) issued a Notice of Preparation (NOP) indicating its determination to prepare an EIR for the proposed project. The NOP can be found in Appendix A. The NOP was issued on April 22, 2005, and the public comment period ended on May 24, 2005. In addition, the CLWA held a public scoping meeting on May 12, 2005, to hear comments on the scope and content of information to be contained in the EIR.

Comment letters on the NOP were received from state agencies or bodies, regional and local agencies, and non-governmental organizations. A listing of the NOP letters received is provided in Table 1.4-1 below. These comment letters can also be found in Appendix A and have been considered in the preparation of this Program EIR.

TABLE 1.4-1
NOTICE OF PREPARATION COMMENT LETTERS

Agency	Division/Department	Date
State of California	Department of Fish and Game	May 23, 2005
State of California	Department of Transportation	May 9, 2005
State of California	Regional Water Quality Control Board	May 31, 2005
South Coast Air Quality Management District (AQMD)		April 27, 2005
Southern California Association of Governments (SCAG)		May 9, 2005
County of Los Angeles	Department of Parks and Recreation	May 24, 2005
County of Los Angeles	Fire Department	August 3, 2005
County of Ventura	Planning Division	May 25, 2005
Individuals		
Casey K. Clark		May 20, 2005
Ed Dunn		May 12, 2005

As required by PRC Section 21161 and CEQA Guidelines Section 15085, the CLWA will file the Notice of Completion for the Draft EIR with the State of California Governor's Office of Planning and Research (OPR), which coordinates state-level reviews through the State Clearinghouse. In addition, as required by PRC Section 21092 and CEQA Guidelines Section 15087, the Notice of Completion/Availability of the Draft EIR will be posted for 30 days in the Office of the County Clerk in the County of Los Angeles and the County of Ventura.

1.5 RELATED PROJECTS

This project is necessitated by the specific project objectives listed in Section 1.2 and is not dependent on other CLWA or non-CLWA projects underway or in the planning stages. Related projects or growth that could have potential additive impacts to the environmental resources affected by the proposed project, in a location and timeframe that are similar to the proposed project, are identified and addressed in Section 6.0, Cumulative Impacts.

1.6 EIR ORGANIZATION

Executive Summary — Presents an overview of the project objectives and project description, followed by a summary table listing potentially significant environmental impacts, project design features, regulatory requirements, mitigation measures, and significance after mitigation for each of the environmental factors/resources.

Section 1.0 — Provides an introduction to the project including project objectives, permits and approvals, and public involvement.

Section 2.0 — Provides a description of the proposed project.

Section 3.0 — Describes the environmental setting, significance criteria, direct environmental impacts, mitigation measures, and any unavoidable significant impacts for the following environmental resources: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

Section 4.0	Addresses the potential for the project to result in growth-inducement and indirect growth-related impacts and describes related mitigations.
Section 5.0	Describes consistency of the project with local general and regional plans.
Section 6.0	Addresses the potential for the project to result in cumulative impacts and describes related mitigation.
Section 7.0	Describes, as applicable, alternatives to the proposed project that could reduce potentially significant adverse impacts of the proposed project.
Section 8.0	Lists references as well as persons and agencies contacted during preparation of the EIR.
Section 9.0	Presents a list of recipients of the Draft EIR.
Section 10.0	Presents the acronyms.
Section 11.0	Identifies the preparers of the EIR.

SECTION 2.0 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

The Castaic Lake Water Agency (CLWA) has a contract with the State of California, acting by and through the Department of Water Resources, to purchase water from the State Water Project (SWP) and to sell/convey water used to supplement local groundwater supplies to four domestic retail water purveyors in the Santa Clarita Valley. The CLWA's SWP contract permits purchasing up to 95,200 acre-feet (af) of SWP Water annually.[1] The imported water is delivered to Castaic Lake through SWP facilities. From Castaic Lake, which serves as the terminal reservoir of the SWP's West Branch, the imported water is treated at CLWA's Earl Schmidt Filtration Plant or at its Rio Vista Water Treatment Plant and is thereafter delivered to the domestic water purveyors through transmission lines owned and operated by the CLWA.

The four water purveyors primarily serve municipal and industrial (M&I) customers. In normal years, approximately 50 percent of the M&I demand within the CLWA's service area is met with imported SWP water. However, the reliability of the SWP supply is subject to the availability of water (i.e., precipitation and snowpack of the present and past years), and deliveries can be curtailed depending on available supply. When sufficient imported water is not available, any imbalance between SWP supply and local demand is met with local groundwater provided by the purveyors. Available groundwater supply is provided within the service areas by the purveyors and not by CLWA.

Projections of urban growth by local land use entitlement agencies (i.e., the City of Santa Clarita, Los Angeles County Department of Regional Planning, and Ventura County Resources Conservation Agency) suggest that water demands from new growth will continue to increase. Accordingly, additional reliable sources of water are necessary to meet projected water demands of the CLWA service area.

[1] "Table A" is a term used in SWP Water Supply Contracts. The "Table A Amount" is the annual maximum amount of water to which an SWP Contractor has a contract right to request delivery, and is specified in Table A of each Contractor's Water Supply Contract. The amount of water actually available for delivery in any year may be an amount less than the Contractor's Table A Amount due to a number of factors, including hydrologic conditions. The parallel term used in the member unit contracts between Kern County Water Agency (KCWA) and Buena Vista Water Storage District (BVWSD) and Rosedale-Rio Bravo Water Storage District (RRBWSD) is "Contract Entitlement" (sometimes referred to as "Table 1 Entitlement"). For the sake of brevity, in this EIR the term "Table A Amount" refers both to the Table A Amount in the SWP Water Supply Contracts and, where the term is used in connection with BVWSD and RRBWSD, it refers to the Table 1 Entitlement under its member unit contract with KCWA.

Forty-one thousand af of CLWA's 95,200 af of Table A Amount were acquired from the Wheeler Ridge-Maricopa Water Storage District by way of a Table A Water Transfer Agreement executed in March 1999. The CLWA prepared an EIR to address the environmental consequences of the transfer agreement. The environmental review for the project by the CLWA was the subject of litigation in Los Angeles Superior Court. The CLWA prevailed in the EIR litigation at the trial court; however, the project opponents (Friends of the Santa Clara River) filed an appeal.

In January 2002, the Court of Appeal issued a decision ordering the Superior Court to decertify the EIR for the transfer agreement on the grounds that it had tiered off another EIR that had been subsequently decertified in other litigation. In doing so, however, the Court of Appeal also examined all the plaintiffs' other arguments, found them to be without merit, and held that, if the tiering problem had not arisen, it would have affirmed the earlier trial court judgment upholding the EIR.

The Court of Appeal did not invalidate any portion of the completed 41,000 af/yr transfer agreement. Instead, the Court directed the trial court to vacate certification of the EIR, and to retain jurisdiction until the CLWA corrected the tiering technicality by preparing a new EIR. In September 2002, the Los Angeles Superior Court refused to prohibit the CLWA from using the 41,000 af of Table A water while a new EIR was being prepared. The Superior Court decision on remand was appealed by Friends of the Santa Clara River to the Appellate Court in January 2003. In December 2003, the appellate court denied any relief to Friends and affirmed the trial court's ruling.

The revised EIR was released for public review and comment in April 2004. It was subsequently certified by the CLWA Board of Directors on December 23, 2004. On January 24, 2005, separate lawsuits challenging the environmental review for this same project were filed by California Water Impact Network and Planning and Conservation League in the Ventura County Superior Court. These cases have been consolidated and transferred to Los Angeles County Superior Court and are still pending.

The CLWA recognizes that recycled water is an important reliable source of additional water that can assist in addressing future limitations on the available water supply.

The Sanitation Districts of Los Angeles County (LACSD) own and operate two water reclamation plants (WRPs), the Saugus WRP and Valencia WRP, within the CLWA service area. These WRPs provide advanced wastewater treatment (i.e., to tertiary levels) and discharge their effluent to the Santa Clara River. Effluent from the Valencia WRP (the larger of the two WRPs) would be a substantial source of recycled water to implement the 2002 Draft Recycled Water Master Plan (RWMP). The Newhall Land and Farming Company, as part of its Newhall Ranch development, is planning to construct a water reclamation facility, and non-potable, recycled water from this source may be incorporated into the CLWA recycled water system. Berry Petroleum has also expressed interest in providing treated oil field water from the Placerita Oil Field to sell to the CLWA for non-potable uses (oil-field-produced water is a by-product of the petroleum extraction process).

Additionally, other sources of recycled water are under consideration, including water used for the amusement park rides and irrigation and washdown runoff at Six Flags Magic Mountain Amusement Park (SFMM), as well as water from the City of Santa Clarita's Pumping Station #2 (PS#2), otherwise known as the Shangri La dewatering system. SFMM and PS#2 are currently discharging into the Santa Clara River and are regulated by National Pollutant Discharge Elimination System (NPDES) permits for point-source discharges.

By utilizing the effluent from the Valencia WRP, Newhall WRP, oil-field-produced water, and other miscellaneous sources for irrigation and other non-potable purposes, the CLWA can more efficiently allocate its potable water and thereby increase the overall reliability of the water supplies it provides to the retail water purveyors in the Santa Clarita Valley.

2.2 PROJECT LOCATION

The RWMP would be implemented completely within the boundaries of the CLWA service area, which comprises approximately 195 square miles of land in northwestern Los Angeles County and eastern Ventura County. No components of the RWMP would be located in Ventura County. The majority of the RWMP facilities would be located within the City of Santa Clarita. The regional location and local vicinity of the CLWA service area, which would contain all RWMP components, are located in Figure 2-1 and Figure 2-2, respectively.

2.3 ENVIRONMENTAL SETTING

The CLWA is a special district water agency that was created by the California Legislature in 1962 to acquire and distribute SWP water. The CLWA currently holds contractual rights to delivery of water from the SWP. The CLWA service area consists of incorporated and unincorporated areas in or adjacent to the Santa Clarita Valley area of Los Angeles County and also extends into eastern Ventura County. Elevations in the CLWA service area range from approximately 800 feet to more than 3,000 feet above sea level. Land use in the service area ranges from the urbanized area of the Santa Clarita Valley (including the City of Santa Clarita and several unincorporated communities in northern Los Angeles County) to relatively undeveloped areas within the eastern Santa Susana and western San Gabriel Mountains. Interstate Highway 5 and California State Highways 14 and 126 provide regional access to the Santa Clarita Valley. The population of the CLWA service area was estimated at approximately 190,000 persons in 2000 based on U.S. Census Bureau data[2].

[2] Using a Geographic Information System (GIS), the census blocks and tracts that were fully or partially within the CLWA service area were determined. If a block was partially within the service area, the percent of the area within the service area was multiplied by the block census counts.

Regional Location

Figure 2-1

CLWA Recycled Water Master Plan

BonTerra CONSULTING

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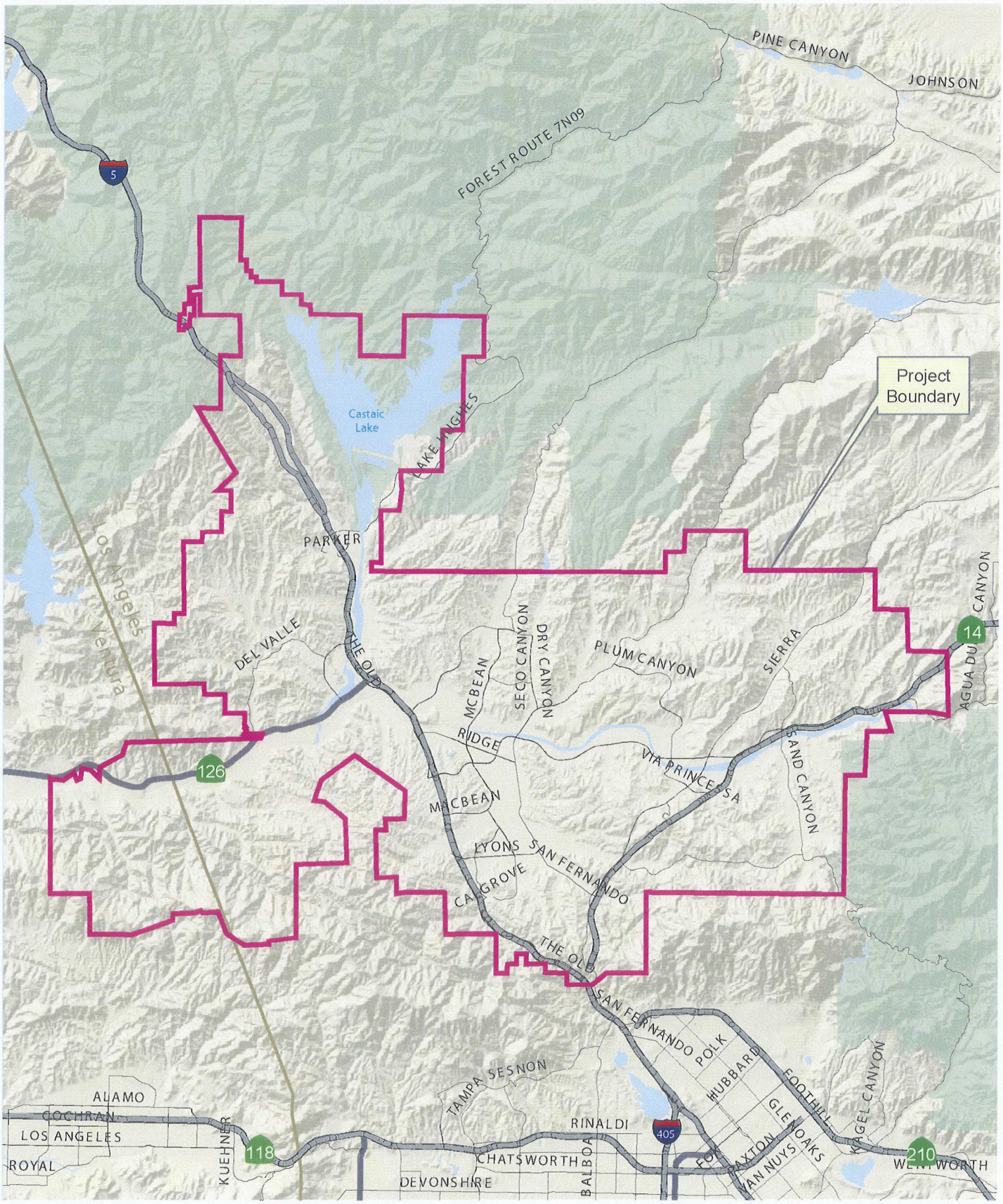

Local Vicinity

Figure 2-2

CLWA Recycled Water Master Plan

N W E S

3 1.5 0 3 Miles

BonTerra CONSULTING

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The CLWA service area is located within the South Coast Air Basin (SCAB), which is currently in non-attainment for carbon monoxide (CO), ozone (O_3), and particulate matter (PM_{10}). Generally, concentrations of photochemical smog, or ozone, are highest during the summer months and coincide with the season of maximum solar insulation. Inert pollutant concentrations tend to be greatest during the winter months and are a product of light wind conditions and surface-based temperature inversions that are frequent that time of year.

Although substantial portions of the CLWA service area have been developed, a large portion of the area still supports ecologically important vegetation and wildlife habitats. Major existing vegetation/habitat types include oak woodlands (stands of valley oaks, coast live oak, and interior live oak can be distinguished); chaparral, coastal and/or Venturan sage scrub; non-native grassland; riparian scrub (characterized by mulefat and/or shrubby willows); and riparian woodlands (characterized by large willows and cottonwoods, including densely forested areas). In addition to the above habitats, open water habitat is provided by Castaic Lake (a facility of the SWP), Castaic Lagoon (a facility of the County of Los Angeles) and limited areas along the Santa Clara River. Castaic Lake supports recreational fishing for bass, trout, catfish and bluegill, along with swimming, boating, and other recreation. The Santa Clara River is a regionally significant habitat for native fishes and other wildlife.

Los Angeles County has designated five locations in the Santa Clarita Valley as Significant Ecological Areas (SEAs). The SEAs include the Santa Clara River, the Santa Susana Mountains, San Francisquito Canyon, Lyon Canyon, and Valley Oaks Savannah. Other sensitive biological resources within the CLWA service area include riparian habitats, oak woodlands, and potential nesting and foraging habitat for sensitive and endangered species. Riparian habitats, especially riparian scrub and forest habitats along the Santa Clara River, provide nesting and foraging habitat for many sensitive bird species, including the endangered least Bell's vireo, the willow flycatcher, the yellow-breasted chat, and the yellow warbler. Riparian habitats along the Santa Clara River, Soledad Canyon, and San Francisquito Canyon are habitat areas primarily of the endangered unarmored threespine stickleback and arroyo toad.

On November 30, 1998, the Natural River Management Plan (NRMP) for the Santa Clara River was approved. The purpose of the NRMP is to plan for the development and preservation of the natural resources and habitats along part of the main stem of the Santa Clara River from Castaic Creek to one-half mile east of the Los Angeles Department of Water and Power Aqueduct and parts of San Francisquito Creek and the Santa Clara River South Fork. The RWMP would be implemented within the area governed by the NRMP.

The geology within and adjacent to the CLWA service area consists of recent alluvial deposits underlain by a relatively thick sequence of Plio-Pleistocene Saugus Formation. Alluvial deposits consist of a maximum of 200 feet of unconsolidated gravel, sand, silt and clay, which occur as relatively narrow strips that underlie and are adjacent to major stream channels. The Saugus Formation consists primarily of semi-consolidated conglomerate and sandstone materials, which reach a maximum thickness of approximately 7,000 feet. Two faults, the active San Gabriel Fault and the potentially active Holser Fault, traverse the CLWA area. The active San Andreas Fault is located approximately 18 miles northeast of the central portion of the Santa Clarita Valley.

The Santa Clarita Valley includes a variety of residential, commercial, industrial, institutional, agricultural, and open space uses. A large portion of the valley is not suitable for development due to steep terrain, flooding potential, or federal jurisdiction (Angeles National Forest). However, rapid residential, commercial, and industrial development of portions of the valley floor and in the canyons has occurred from growth influences from the Los Angeles metropolitan area and the presence of three major highways, including U.S. Interstate 5 (Golden State Freeway), State Highway 14 (Antelope Valley Freeway), and State Route 126 (SR-126).

There are a number of development projects underway and seeking approvals from local land use agencies in the Santa Clarita Valley. Two significant land use types that could be developed in the future, assuming adoption of the necessary General Plan amendments or Specific Plans, are: (1) nearly 40,000 acres of designated Hillside Management areas in Los Angeles County and (2) almost 8,500 acres of agriculture and open space lands in the Ventura County portion of the CLWA service area.

2.4 RECYCLED WATER REGULATION AND USE

2.4.1 REGULATION OF RECYCLED WATER

The State of California has implemented laws that provide for and encourage the use of recycled water. Section 461 of the State Water Code states, "It is hereby declared that the primary interest of the people of the state in the conservation of all available water resources requires the maximum reuse of reclaimed water in the satisfaction of requirements for beneficial uses of water." The State also encourages Californians to develop water recycling projects to help meet potable water demands and to augment surface and groundwater supplies, as stated in Water Code Sections 13500–13556.

The Water Recycling Act of 1991 established a statewide water recycling goal. This legislation defined recycled water as "water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that otherwise would not occur." In other words, recycled water is wastewater that has been treated to a quality that allows the water to be used again. The legislation also declared that recycled water was a valuable resource and established a statewide goal to recycle a total of 700,000 af of water per year by the year 2000 and 1,000,000 af by the year 2010. In 2001, the State Legislature created the Recycled Water Task Force, which was convened to analyze impediments and constraints that keep California from maximizing the benefits of recycled water (WaterReuse Association, California Section 2005).

The regulation of recycled water is vested by state law in the State of California Water Resources Control Board (SWRCB) and the State of California Department of Health Services (DHS). The DHS is responsible for the regulations on the use of recycled water. The established water quality standards and treatment reliability criteria for recycled water is codified under Title 22 of the *California Code of Regulations*. Permits are issued to each water recycling project by one of the nine Regional Water Quality Control Boards. These permits include water quality and public health protections, as detailed in Title 22 (DHS et. al. 2002).

Title 22 is enforced by the RWQCBs and regulates the sources, uses, plumbing requirements, sampling and analysis, reporting, design, and treatment requirements of recycled water in California. Title 17 regulates the protection of the potable water supply through the control of cross-connections with potential contaminants, including recycled water.

2.4.2 RECYCLED WATER USES

The SWRCB has compiled data about the uses of recycled water in the state of California. In 2002, approximately 525,000 af of recycled water was used throughout the state. Approximately 46 percent of the total recycled water available annually was used for agricultural irrigation, followed by landscape irrigation (21 percent), and groundwater recharge (14 percent including seawater intrusion barriers). Other uses include industrial use, recreational impoundment, wildlife habitat or miscellaneous enhancement, and "other or mixed" uses (SWRCB 2004).

Recycled water in the Santa Clarita Valley area would primarily be used for landscape irrigation for facilities such as golf courses, parks, schools, commercial/industrial landscaping, cemeteries and freeway medians, although all appropriate applications of recycled water would be considered if customers are available. Other likely uses of recycled water include industrial applications, such as recycled water use in cooling towers or industrial processes, as well as agricultural applications.

2.5 RECYCLED WATER SUPPLY

Recycled water would be supplied to the recycled water distribution system from the Valencia WRP. Other potential sources of recycled water include the Placerita oil field, the Newhall Ranch WRP, Six Flags Magic Mountain, and the City of Santa Clarita Shangri La dewatering system.

These recycled water sources are anticipated future sources of wastewater regardless of the implementation of the RWMP. Any future Valencia WRP expansions and the Newhall Ranch WRP construction are not a part of this EIR; this EIR only includes the identification of recycled water sources (i.e. the water coming from these facilities). However, the Valencia WRP expansions and Newhall Ranch WRP construction are considered in Section 6.0, Cumulative Impacts.

In particular, the Valencia WRP will experience increases in wastewater production commensurate with continued population growth. However, the RWMP would not contribute to an increase in wastewater production. Rather, the RWMP would optimize the beneficial reuse of the inevitable increase in wastewater by developing a distribution system to use this water as a non-potable source, thereby reducing dependence on potable water. During periods of peak demand, recycled water would also be supplied from aquifer storage and recovery (ASR) facilities. ASR facilities would be implemented only as part of the RWMP.

Valencia WRP

The use of recycled water from the Valencia WRP is permitted under Regional Water Quality Control Board (RWQCB) Order No. 87-48. On July 24, 1996, the CLWA executed an agreement with the LACSD to purchase up to 1,700 af/yr of recycled water from the Valencia WRP. As previously discussed, the CLWA completed the initial facility construction to utilize this supply in 2003.

The Valencia WRP is one of eleven publicly owned treatment works (POTWs) that are owned and operated by the LACSD, and it is located within District No. 32 on The Old Road near SFMM. The Valencia WRP was completed in 1967. The plant has a dry weather average design capacity of 21.6 million gallons per day (mgd) of tertiary treated municipal wastewater; the Valencia WRP discharges tertiary effluent to the Santa Clara River. The existing capacity of 21.6 mgd followed three expansions, including construction of a 4.4 mg flow equalization tank in February 1995, the Stage 4 expansion completed in June 1996, and the Joint Sewerage

System Phase I expansion of 9 mgd in 2002. According to the 2015 Joint Sewage Facility Plan, the Phase II expansion of the Valencia WRP is expected to be constructed and operational in 2010 and would involve an additional increase of 6 mgd, which would result in a capacity of 27.6 mgd.

Flow to the WRP consists of domestic, commercial, and industrial wastewater. In 2002, industrial wastewater represented only approximately 2.4 percent of the total flow to the WRP (LACSD 2003a). The treatment system at the Valencia WRP currently consists of comminution, grit removal, primary sedimentation, nitrification/denitrification (NDN), activated sludge biological treatment, secondary clarification, inert media filtration, chlorination, and dechlorination. The plant also provides flow equalization of primary effluent. Waste activated sludge is concentrated by dissolved air flotation, is blended with primary sludge, and is anaerobically digested. The digested solids are thickened using a filter press. Dried solids are trucked away off site either to a landfill or to a site for land application (LACSD 2003a).

The Valencia WRP will be the main source of recycled water for the RWMP; however, both the Valencia and Saugus WRPs currently discharge to the Santa Clara River. The 1988 Program EIR that included a recycled water element provided for the development of 1,700 af/yr of recycled water. The effluent discharged to the Santa Clara River in 1988 from both WRPs was assumed to be 9.72 mgd (10,877 af/yr). The removal of the 1,700 af/yr for use as recycled water was determined by the 1988 EIR to have no impact on the environment.

In the intervening years since this analysis was conducted, effluent production from the Valencia WRP has continued to increase due to increased sewage inflow from new development. Table 2.5-1 presents the average annual effluent flows from the Saugus and Valencia WRPs.

TABLE 2.5-1
AVERAGE ANNUAL SAUGUS AND VALENCIA WRP EFFLUENT FLOWS (MGD)

Year	Saugus WRP	Valencia WRP	Total
2001	5.7	11.2	**16.9**
2002	5.6	12.4	**18.0**
2003	4.1	14.0	**18.1**
2004	4.0	14.4	**18.4**
2005	4.2	16.6	**20.8**
AVERAGE	4.7	13.7	

Source: Alarcon 2005.

From 2001 through 2005, the Valencia WRP and Saugus WRP discharged an annual average of 13.7 mgd (15,348 AF/yr) and 4.7 mgd (5,265 AF/yr), respectively, of effluent to the Santa Clara River, for a combined effluent discharge of 18.4 mgd (20,614 AF/yr). This is the most recent data available of the effluent production from the Valencia and Saugus WRP. The Saugus and Valencia WRPs are an inter-connected sewerage and wastewater treatment system whereby sewage flows can be bypassed at the Saugus WRP and conveyed for treatment at the Valencia WRP. Over the past few years increased flows have been treated at the Valencia WRP with a concomitant decrease in flows treated at the Saugus WRP due to operational considerations related to the construction and operation of nitrification-denitrification facilities at both WRPs. In the future, it is anticipated that the flows at the Saugus WRP will increase back to the design capacity of the plant.

By 2030, the anticipated design capacities of the Saugus and Valencia WRPs are expected to be 6.5 mgd (current design capacity at the Saugus WRP) and 27.6 mgd, respectively, for a combined WRP design capacity of 34.1 mgd. Based on the RWMP, reuse of this effluent is anticipated at 15.5 mgd (17,400 AF/yr) by year 2030. Because no recycled water would be taken from the Saugus WRP and no expansion of this WRP is planned, it is anticipated that effluent discharges to the Santa Clara River from the Saugus WRP will be at the current design capacity of 6.5 mgd. The remaining discharges to the Santa Clara River will be from the Valencia WRP, and are anticipated to be 12.1 mgd (27.6 mgd less 15.5 mgd of reuse) by 2030.

Even though the discharge from the Valencia WRP to the Santa Clara River is anticipated to be lower than the 2001-2005 average conditions, the combined effluent discharges from both WRPs to the river are not expected to appreciably change. By 2030 (planning horizon for the RWMP), the combined WRP effluent discharge to the Santa Clara River of 18.6 mgd (34.1 mgd at both WRPs less 15.5 mgd of reuse at Valencia WRP) is slightly higher than the 2001-2005 average discharge conditions from both WRPs of 18.4 mgd. Therefore, the implementation of the RWMP would not impact the hydrology or ecology of the Santa Clara River system since the combined existing discharge conditions from both WRPs would be essentially maintained.

If, at a future time, recycled water facilities should require more diversions to achieve the RWMP goal of 17,400 af/yr of recycled water use, additional CEQA analyses and a determination as to the impacts of any additional effluent diversion would be done. However, as a project design feature, all effluent diversions from the Valencia WRP into the recycled water system would not impact or divert from the average annual effluent flow of 18.4 mgd released into the Santa Clara River, as measured between 2001 and 2005.

Berry Petroleum Oil-Field-Produced Water

The Placerita Oil Field is located within the city limits of Santa Clarita adjacent to the Antelope Valley Freeway (State Route 14). The oil-field-produced water is a by-product of oil production that is generated when oil is pumped out of the underground reservoir. As the oil is produced from an oil field, produced water can comprise approximately ninety percent of the fluids pumped from an oil well. Highly productive oil fields in California produce approximately 10 to 15 barrels of water for every barrel of oil. The produced water is generally of poor water quality and unsuitable for potable, industrial, or irrigation use without treatment. Currently, the produced water at Placerita Oil Field is deep well injected into the Pico Formation underground reservoir, which is below the Saugus Formation and is not used as a source of drinking water. Because the economics of oil field production is market-driven and different from those of drinking water supplies, oil fields may go in or out of production depending on economics. Therefore, the reliability of oil-field-produced water is considered to be a long-term, but not a permanent supply.

Newhall Ranch WRP

The Newhall Ranch project will include a WRP that would be located near the western edge of the development along the south side of State Route 126. The plant will be constructed in stages, with an ultimate capacity of 7.7 mgd. The WRP will exclusively serve the Newhall Ranch Specific Plan and a new County Sanitation District will be created and annexed into the Consolidated Sewer Maintenance District if its sewers are to be maintained by the County (County of Los Angeles 1999). The WRP would be designed and operated to provide a tertiary level of treatment and would be a "near zero-discharge" system. All treated wastewater would be reused to meet non-potable water demand within the Specific Plan Area for irrigation purposes.

According to the Newhall Ranch Draft "Additional Analysis" from their Environmental Impact Report, this plant is projected to produce 5,344 af/yr of effluent on average (Newhall 2000). During the dry summer months, all recycled water will be used for non-potable uses within Newhall Ranch, and will be supplemented by additional recycled water from the CLWA. During the wet winter months, when demands are low, the Newhall Ranch WRP will have approximately 286 af/yr in excess recycled water. This recycled water will be transferred into the CLWA recycled water system for use and/or storage (Newhall 2000).

Six Flags Magic Mountain

Six Flags Theme Parks, Inc. (SFTP) operates the SFMM amusement park in Valencia. Amusement park operations result in discharges to the Santa Clara River from pond drainage/overflow, washdown and irrigation runoff, and storm water runoff. These discharges into the Santa Clara River are regulated waste discharges under an NPDES permit (NPDES Permit No. CA 0003352) which expired on January 10, 2003. In April 2005, the RWQCB issued tentative waste discharge requirements (WDRs) that would serve as the NPDES permit for the amusement park. The WDRs and NPDES permit were adopted by the RWQCB in June 2005.

In the RWQCB review of SFTP's compliance history, exceedances were noted primarily for chloride, residual chlorine, lead, total dissolved solids, total suspended solids, and settleable solids. Other one-time exceedances were also noted. Of the exceedances, the most problematic are those for chloride, which are caused by chloride in the water supply, addition of chlorine for disinfection, and residual chlorine from evaporation on the water rides. To address the exceedances, SFTP is considering control of the turnover rate in the water rides to ensure that the water meets the RWQCB water reclamation criteria. This approach could provide an additional source of recycled water for the CLWA.

Shangri La Dewatering System

The Shangri La groundwater management system was installed by American Landmark Development, Inc. in 1990 to maintain low groundwater levels beneath shear keys in order to minimize the risk of landslides in the Shangri La residential neighborhood. The City of Santa Clarita took responsibility for the operation and maintenance of the system in 1993.

Pumping Station #2 (PS#2), located in eastern Santa Clarita on Crossglade Road near Whites Canyon Road discharges the groundwater into a concrete storm channel, which is then released into the Santa Clara River at Canyon View Drive. The amount of discharge from PS#2 is variable and dependent upon the amount of rainfall in a given season. Peak discharges from PS#2 were 100,000 to 115,000 gallons per day (112 to 129 af/yr) in 1993 to 10,000 to 20,000 gallons per day (11 to 22 af/yr) in 1998. The average discharge from PS#2 has been approximately 40,000 gallons per day (45 af/yr) between 1993 through 2005. The City of Santa Clarita holds the NPDES Permit (No. CA0061638) for PS#2, which was issued in June 1990 and renewed in September 1996 and July 2003.

The RWMP distribution system is not planned to extend as far as the Shangri La area of Santa Clarita. Therefore, in order for this recycled water supply to be a viable source for the RWMP, the City of Santa Clarita would have to design and pay for the construction of facilities to connect with the RWMP distribution system.

2.6 RWMP COMPONENTS

The CLWA proposes to develop and construct a recycled water system to serve the Santa Clarita Valley Area in an attempt to reduce the present and future demands on its potable water supplies. The proposed recycled water system is described in the 2002 RWMP. The

development of this recycled water resource is consistent with Chapter 7, Article 7, Section 13551 of the Water Reclamation Law as set forth in the California Water Code. CLWA is the lead agency for the proposed project.

The 2002 RWMP is a planning document that updates the 1993 *Draft Reclaimed Water Master Plan*. The 2002 RWMP has been prepared to consider new significant developments affecting recycled water sources, supplies, users and demands, so that the CLWA can develop a cost-effective recycled water system. Potential existing and future recycled water users were identified from the 1993 Master Plan and updated in the 2002 RWMP through contacts with the local purveyors and the City of Santa Clarita.

The recycled water system would be divided into two service zones based on the topography of the service area. The "topography" of an area refers to the configuration of the land surface, including its relief and positions of natural and manmade features. Where topography places the end user at a lower elevation than the recycled water source, gravity flow will be used to deliver the water. Gravity flow would be implemented wherever feasible. Where gravity flow is not feasible (i.e., the end user is located at an equal or higher elevation than the water source), a booster pump station would need to be constructed.

Flow and storage information for each of the zones is presented below in Table 2.6-1. Each of the zones would contain storage reservoirs, distribution system piping, and booster pump stations. The layout of the proposed recycled water system is shown on Figure 2-3 and the system components are discussed below.

TABLE 2.6-1
FLOW AND STORAGE DATA BY ZONE

Service Zone	Peak Day Demand (mgd)[a]	Peak Hour Demand (gpm)[b]	Storage Volume (mg)[c]
1430	22.9	43,812	17.5
1680	9.0	22,870	6.75
Total	**31.9**	**66,682**	**24.25**

Source: CLWA 2002a

Notes:

[a] million gallons per day

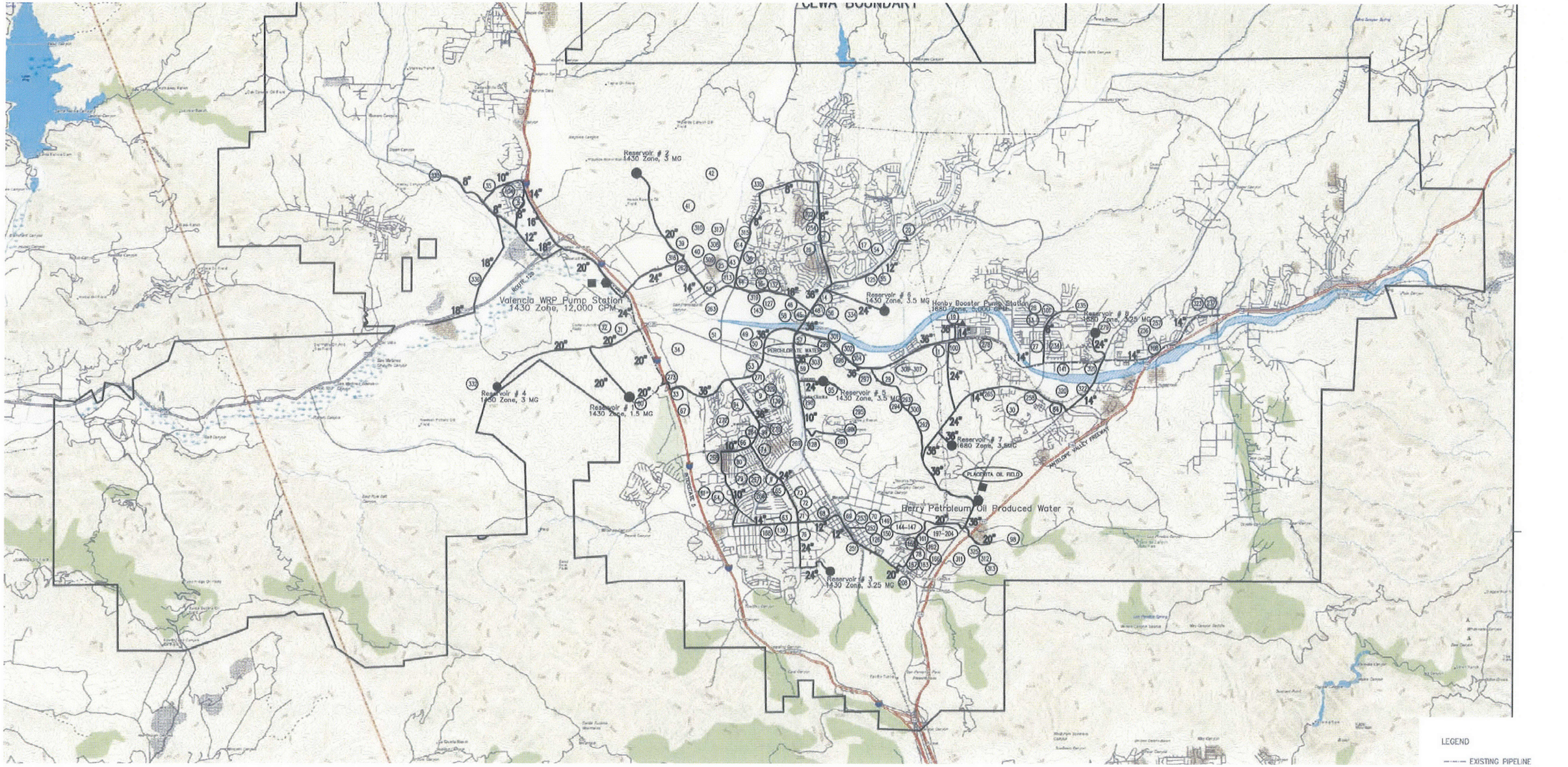
[b] gallons per minute

[c] mg=million gallons

2.6.1 PROJECT PHASING

As use of potable water increases and, consequently, recycled water production increases (from sewage generated by new development), the amount of recycled water available to meet system demands would also increase. Therefore, the RWMP recommends that construction of the recycled water system be phased to utilize the increases in WRP production. The total water supply available for recycled water use is expected to reach approximately 17,400 af/yr over the next 25 years, as described in the 2005 UWMP (CLWA 2005c). Therefore, the RWMP contains 12 phases to be implemented over approximately 25 years. Phases 1A through 11 are described in Section 13 of the 2002 RWMP.

The implementation phases are prioritized based on the status of the users (existing or future), anticipated construction schedule of future users, and the proximity of the users to the non-potable water sources. The RWMP recommends that the recycled water system be implemented as shown in Table 2.6-2 below.



Recycled Water Master Plan Components

Figure 2-3

CLWA Recycled Water Master Plan

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0 1 2 3
1 INCH = 5000 FEET

Source: CLWA

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TABLE 2.6-2
IMPLEMENTATION PHASES

Phase	Zone	Year	Water Demand (af/yr)[a]
1A	1430	Existing	880
1B	1430	Planned for 2007	3,862
2	1430	Undetermined	1,236
3	1430	Undetermined	4,644
4	1430	Undetermined	401
5	1680	Undetermined	658
6	1680	Undetermined	722
7	1430	Undetermined	3,892
8	1430	Undetermined	171
9	1680	Undetermined	351
10	1680	Undetermined	227
11	1430	Undetermined	399
		Total	**17,441[b]**

Notes:

[a] Demands by phase include both existing and future demands. Not all future demands would be on-line when phase is implemented.

[b] This forecasted water demand is based on 2002 calculations and is reflected in the 2002 Draft RWMP. The 2005 UWMP forecasts a recycled water demand of 17,400 af/yr total, slightly lower than the 2002 RWMP estimate. For the purposes of this analysis, a recycled water demand of 17,400, consistent with the UWMP, is assumed.

Phase 1A of the RWMP has been completed. This phase included construction of the 4,000 gallon per day (gpd) recycled water pump station at the Valencia WRP, 15,600 linear feet (LF) of 20- and 24-inch ductile iron pipe from the Valencia WRP recycled water pump station to Recycled Water Reservoir No. 1 (a 1.5 MG aboveground steel reservoir located near the Westridge Golf Course). The fully operational pipeline and reservoir from Phase IA located at the terminus of Westridge Parkway are illustrated in Figure 2-4. Environmental documentation for this phase was completed in 1991 and consisted of two primary documents:

- CLWA's 1988 *Final Program EIR for the Capital Program and Water Plan including Acquisition of Supplemental Water and Proposed Second Plant Site.*
- CLWA's 1991 *Site Specific Mitigated Negative Declaration for Construction of a Reclaimed Water Distribution System.*

2.6.2 NORTHWEST SPUR PIPELINE

The second phase of the RWMP (Phase 1B) includes the construction of the Northwest Spur Pipeline. This pipeline would connect to the existing pipeline discussed above and illustrated in Figure 2-4. The Northwest Spur would be located entirely within the County of Los Angeles on the west side of Interstate 5 and its proposed path is depicted in Figure 2-5.

Existing and Previously Approved Pipelines

Figure 2-4

CLWA Recycled Water Master Plan

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1,500 750 0 1,500

Feet

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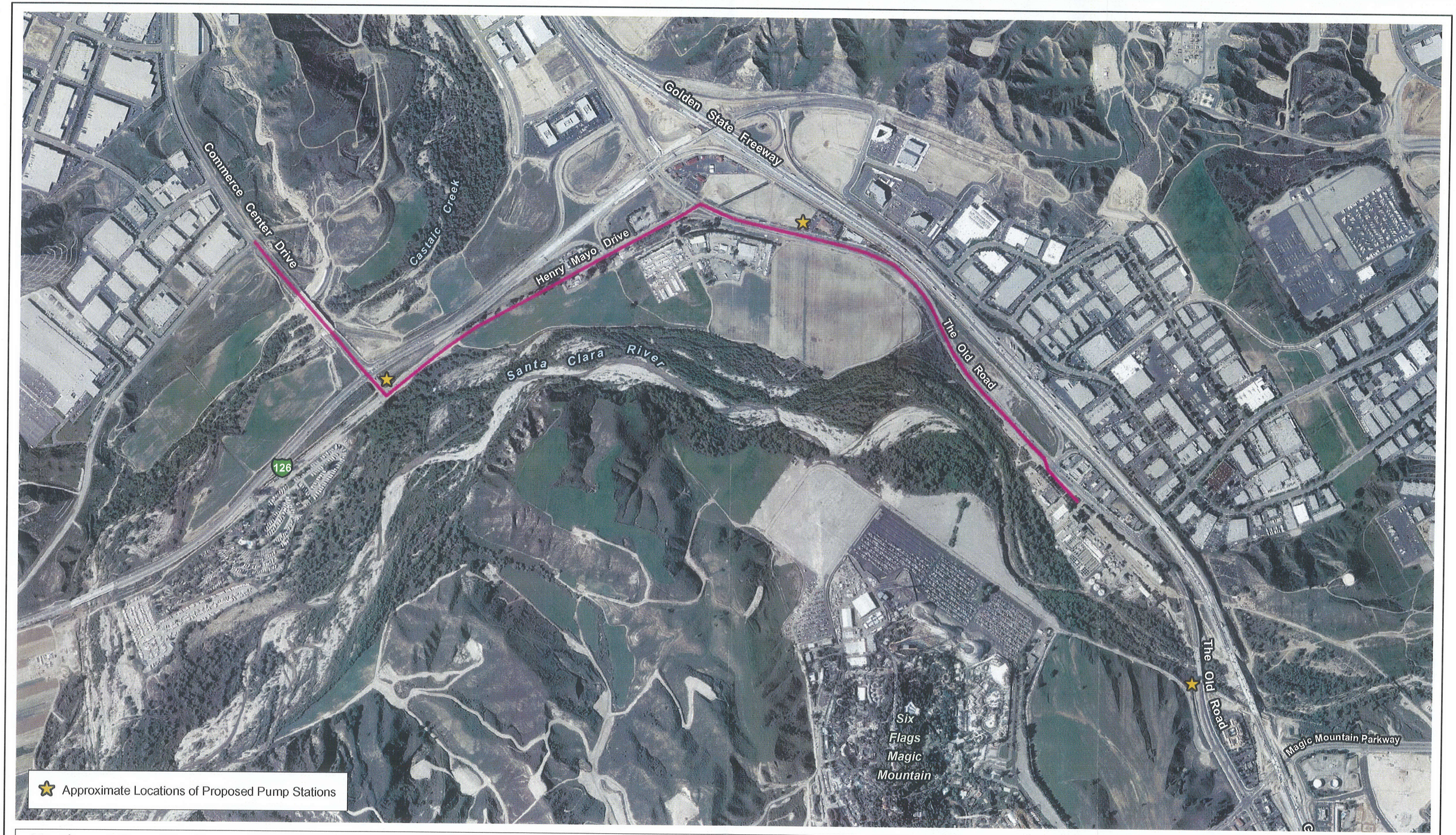

Northwest Spur Pipeline

CLWA Recycled Water Master Plan

Figure 2-5

N W E S

1,000 500 0 1,000 Feet

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The underground pipeline would begin at the Valencia WRP, would connect to the existing underground 24-inch ductile iron pipe, and would travel northward between The Old Road and the Valencia WRP property for approximately 0.11 mile. The pipeline would then continue northward in The Old Road right-of-way, turn westward under Henry Mayo Drive, and turn northwest under the Commerce Center Drive (under SR 126), which includes a bridge over Castaic Creek. The entire length of the proposed pipeline is 2.35 miles. The Northwest Spur Pipeline segment adjacent to The Old Road will be 20 inches in diameter to the north of the Valencia WRP and 24 inches in diameter to the south of the Valencia WRP. The segment in Henry May Drive would be 18 inches in diameter.

SR-126 is within the jurisdiction of the State of California Department of Transportation (Caltrans), and construction of the pipeline would require approval from Caltrans. All the pipeline construction, with the exception of approximately 0.11 mile of pipeline near the Valencia WRP, would be under paved or improved roadways. Construction of the proposed Northwest Spur Pipeline, which is anticipated to begin in Year 2007, would require construction trenches to be approximately 42 to 48 inches wide and approximately six to seven feet deep. Construction of this pipeline would result in an impact corridor measuring approximately 20 feet wide, which includes a four-foot-wide trench and approximately eight feet on either side of the trench for construction equipment.

The Northwest Spur Pipeline would eventually provide recycled water to the industrial complexes along Commerce Center Drive and would provide an opportunity for the proposed Newhall Ranch Recycled Water System (NRRW System) to tie into the Northwest Spur Pipeline at the intersection of Henry May Drive and Commerce Center Drive and in Magic Mountain Parkway (approximately one-quarter mile west of The Old Road).

The Northwest Spur Pipeline and other components of the CLWA Recycled Water System would be connected to the NRRW System, as described in the Newhall Ranch Specific Plan and its associated environmental documents. According to the Newhall Ranch Specific Plan, in a normal year the NRRW System would use 3,691 af of recycled water from the CLWA Recycled Water System.

Northwest Spur Pipeline Integrated Design Option

Since the preparation of the RWMP, further design details of the Northwest Spur Pipeline (NWSP) in conjunction with the NRRW System, have been identified and an optional design has been evaluated. In this option, in addition to the Northwest Spur Pipeline components described above, the CLWA and the Valencia Water Company (VWC) would jointly use the pipeline along Henry Mayo Drive and The Old Road (i.e., the same alignment as in the NWSP). The pipeline would be constructed, owned, and operated by the VWC. The VWC would construct it to an increased size of 27 inches in diameter in order to carry larger recycled water flows than as planned in the RWMP.

The CLWA would reduce the pressure at its pumping plant located at the Valencia WRP to accommodate the lower pressure zone of the Newhall Ranch Specific Plan adjacent to the Valencia WRP. The CLWA would construct and operate two new booster pump stations to the pipeline along The Old Road and one at the intersection of Henry Mayo Drive and Commerce Center Drive in order to boost pressure back up to the nearby CLWA service zone pressure. That booster pump station would be located within a graded parcel located on the western side of The Old Road approximately one-quarter mile north of Magic Mountain Parkway, one would be located on the north side of The Old Road immediately to the southeast of the CalTrans service facility and the last would be located on the northeast corner of Henry Mayo Drive and Commerce Center Drive. Total area required for each of the pump stations would be approximately 1,000 square feet and the pumps would be housed in a single-story structure less

than 1,000 square feet in size. The pumping plants would be designed with a capacity of approximately 9,000 gpm.

The only change in construction impacts that would potentially occur with the changed design option for the Northwest Spur Pipeline is that the trench for the pipeline adjacent to The Old Road and located in Henry Mayo Drive (between The Old Road and Commerce Center Drive) would need to be increased in width and depth by a maximum two feet to accommodate the larger diameter pipe and would be installed by the VWC. The surface work area for the pipeline installation would also be increased in width by two feet, resulting in a construction trench width of up to 72 inches and depth of up to nine feet. There would also be additional construction impacts associated with the new booster pump station that would be constructed by CLWA, but the impacts would be confined to the installation of the pumps, the construction of a pump house and minor site improvements, as the sites are already graded and within developed areas.

The connection points between the Northwest Spur Pipeline and other parts of the CLWA System and the NRRW System would not result in additional construction-related impacts because they would only be installed with new pipes and no additional trenching would be required. No change in operational impacts would occur since the facilities would remain largely underground, though the additional booster pump station would require servicing on a weekly basis. This integrated recycled water system design is analyzed in the Program EIR as the NWSP since it would have the greater impacts of the two design options. Therefore, when applicable, some sections of this Program EIR present a detailed analysis of impacts associated with the NWSP rather than with the larger RWMP because project-specific details are known.

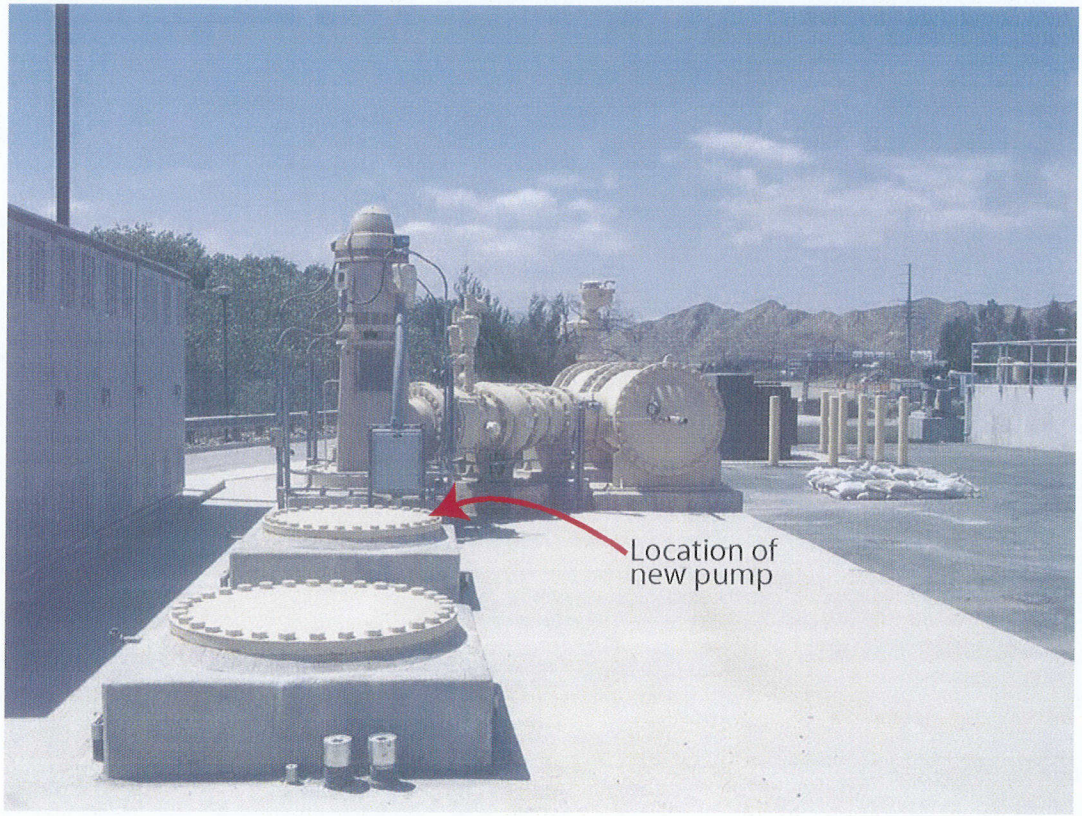
2.6.3 RECYCLED WATER PUMP STATION

An existing recycled water pump station is located near the chlorine contact tank at the Valencia WRP and would be used to transport the recycled water to the storage reservoirs in each zone. Two photographs of the recycled water pump station are shown in Figure 2-6. The pump station is currently sized for 4,000 gallon/minute (gpm) and, assuming a constant flow rate and a total daily flow equivalent to the peak day demand, the ultimate capacity of the recycled water pump station is 12,000 gpm. The recycled water pump station at Valencia WPR would provide the primary input location to the recycled water supply system. If additional pumping capacity is needed, an additional pump would be located on the existing foundation, as depicted in Figure 2-6.

A second recycled water pump station would need to be constructed at the Berry Petroleum oil field facility. The capacity of the oil field facility pump station would be 1,250 gpm, and the pump station would be located at the oil field in the 1,680 elevation service zone. Storage capacity (discussed below) would provide corresponding reductions in the required recycled water pump station capacity by allowing peak hour demands to be met with a combination of pumped water and water from storage reservoirs. The recycled water pump stations would be controlled by water surface elevations in the storage reservoirs.

2.6.4 STORAGE RESERVOIRS / RESERVOIR TANKS

The RWMP recommends the construction of eight recycled water storage reservoirs. Each elevation service zone would have at least one reservoir. Construction of one reservoir tank, which would be one of the largest construction projects in the implementation of the RWMP, would likely generate between 150–250 construction-related truck trips over the course of construction (approximately six to eight months). The storage capacity in each zone would be equal to approximately 75 percent of the peak day demand. The reservoirs are assumed to be aboveground steel tanks ranging in size from 1.5 million gallons (MG) to 3.5 MG.



Recycled Water Pump Station at Valencia WRP

Figure 2-6

CLWA Recycled Water Master Plan

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Total storage capacity for the system would be 24.5 MG. Recycled water entering and exiting the storage reservoirs would be controlled by two-way flow valves. Reservoir elevations would be determined by the required system and delivery pressures, as listed in Table 2.6-3

TABLE 2.6-3
RESERVOIR VOLUMES AND ELEVATIONS

Reservoir Number	Service Zone	Volume (MG)	Maximum Water Surface Elevation (ft)
1 (Constructed)	1430	1.5	1,430
2	1430	3.0	1,430
3	1430	3.25	1,430
4	1430	3.0	1,430
5	1430	3.5	1,430
6	1430	3.25	1,430
7	1680	3.5	1,680
8	1680	3.25	1,680

The location of the reservoir tanks in the RWMP are only sited conceptually, so the locations may change when siting studies are concluded. However, certain characteristics of the reservoir tanks are known. For instance, it is known that the reservoir tanks will need to be located at elevations of approximately either 1,430 feet or 1,680 feet above sea level. Additionally, the tanks that remain to be constructed will range in size from 3.0 MG to 3.5 MG. The conceptual locations of the reservoir tanks are illustrated in Figure 2-3.

2.6.5 DISTRIBUTION SYSTEM

The distribution system design and proposed pipeline routes are shown on Figure 2-3. Where possible, the distribution routes are located along existing public rights-of-way and planned roadways in order to maintain accessibility and minimize the costs of acquiring pipeline easements. The distribution system consists of a total of approximately 275,000 LF of pipe ranging from 8 to 36 inches in diameter. The proposed recycled water distribution system crosses the Santa Clara River in three locations: McBean Parkway, The Old Road, and Sierra Highway. The RWMP recommends that the pipelines be supported from existing bridge crossings. Pipelines cross I-5 at Rye Canyon Road and Valencia Blvd, and the SR-14 (Antelope Valley Freeway) at Berry Petroleum Road. The lengths and diameters of the pipeline segments for each elevation service zone are presented in Table 2.6-4.

TABLE 2.6-4
PIPELINE DIAMETERS AND LENGTHS

Diameter (in.)	Material	Length (LF)
36	Steel	64,182
24	PVC	34,696
20	PVC	40,718
18	PVC	15,008
16	PVC	10,946
14	PVC	31,752
12	PVC	20,190
10	PVC	22,501
8	PVC	44,935
Note: Only includes new pipelines. Pipeline 1A-2 from the RWMP is not included.		

Air release valves would be installed at the high points of the distribution system to remove trapped air, and blow off valves would be installed at the low points of the distribution system to remove sediment. High-pressure polyvinyl chloride (PVC) pipe is the primary pipe type used throughout the system, and would be tinted purple to denote recycled water. In addition, steel pipe is required at bridge crossings and ductile iron pipe (DIP) is required at pump stations and reservoirs.

2.6.6 BOOSTER PUMP STATIONS

The RWMP recommends one booster pump station in addition to the recycled water pump stations located at the Valencia WRP and the oil field facility. The booster pump station is needed in the 1,680 elevation service zone to increase system delivery pressures. The existing Honby Pump Station (5,000 gpm capacity) is planned to be taken out of potable water service within the next few years. The Honby Pump Station is located between Soledad Canyon Road and the Santa Clara River near Honby Avenue; it could be modified to provide recycled water service. In addition, users with pressures less than 55 pounds per square inch (psi) may require independent booster pump stations. The location of the existing Honby Pump Station is illustrated in Figure 2-3.

2.6.7 SEASONAL STORAGE

Implementation of the proposed recycled water system would reduce future effluent volumes that would be discharged into the Santa Clara River. As recycled water irrigation demand is highest in the summer and lowest in the winter months, seasonal storage is proposed to mitigate potential seasonal impacts to the river flow and enable additional recycled water supply availability during high water-use months. The RWMP evaluates two potential storage options: (1) Open, aboveground reservoirs at Charlie Canyon and Oak Spring Canyon sites and (2) ASR facilities.

The RWMP recommends the ASR option for seasonal storage. Under this approach, during wet winter months, when recycled water production is at its peak but demand is low, recycled water would be injected below the ground surface into the Saugus Formation north of the San Gabriel Fault, where the Saugus Formation thins and is not utilized for potable water purposes; this would allow potable water wells to be separated from the recycled water/ASR injection facilities by the fault. During dry summer months, when demand is highest, the recycled water would be extracted from the Saugus Formation and delivered to customers.

There are two freshwater aquifers within the CLWA service area: the shallow Alluvial Aquifer and the deeper Saugus Formation. The Saugus Formation underlies approximately 53 square miles of the Santa Clarita Valley, and the CLWA boundaries encompass the aquifer almost in its entirety. Two faults cross the Saugus Formation dividing it into three parts, each with different characteristics. The San Gabriel Fault traverses the Saugus Formation in a northwesterly direction, while the Holser Fault extends westerly across the aquifer from the San Gabriel Fault. Generally, the aquifer characteristics for potable water storage and pumping are best between the two faults and worst north of the San Gabriel Fault. Due to the poor aquifer characteristics north of the San Gabriel Fault, this area is not generally used for the production of potable water, making it a possible location for an ASR recycled water facility.

The Saugus Formation is comprised of layers of water-bearing deposits. The maximum thickness of the Saugus deposits bearing fresh water varies from 1,500 feet north of the San Gabriel Fault to 5,000 feet south of the Holser Fault, to 5,500 feet between the two faults. Of the fresh water-bearing deposits, a portion consists of fine-grained strata, such as siltstones and shales and is therefore unsuitable for groundwater storage and extraction. The remaining sand and gravel deposits are potentially usable water-bearing strata for ASR. The maximum combined thickness of these strata between the depths of 500 feet and 2,500 feet occurs at a location that is approximately 400 feet north of the San Gabriel Fault. Injecting the recycled water into the ASR reservoir to the 500-foot minimum depth ensures no interference of groundwater from the alluvium (upper Alluvial Aquifer) (CLWA 2002a). Figure 2-7 depicts the potential area where the ASR activities would occur.

2.7 ENVIRONMENTAL DOCUMENTATION APPROACH

2.7.1 PROGRAM EIR

The CLWA has determined that the preparation of a Program Environmental Impact Report would be the most appropriate environmental document for the evaluation of impacts associated with the implementation of the RWMP. As stated in Section 15168(a) of the CEQA Guidelines, a Program EIR is an EIR which may be prepared for a series of actions that can be characterized as one large project and are related either:

(1) Geographically,

(2) As logical parts in the chain of contemplated actions,

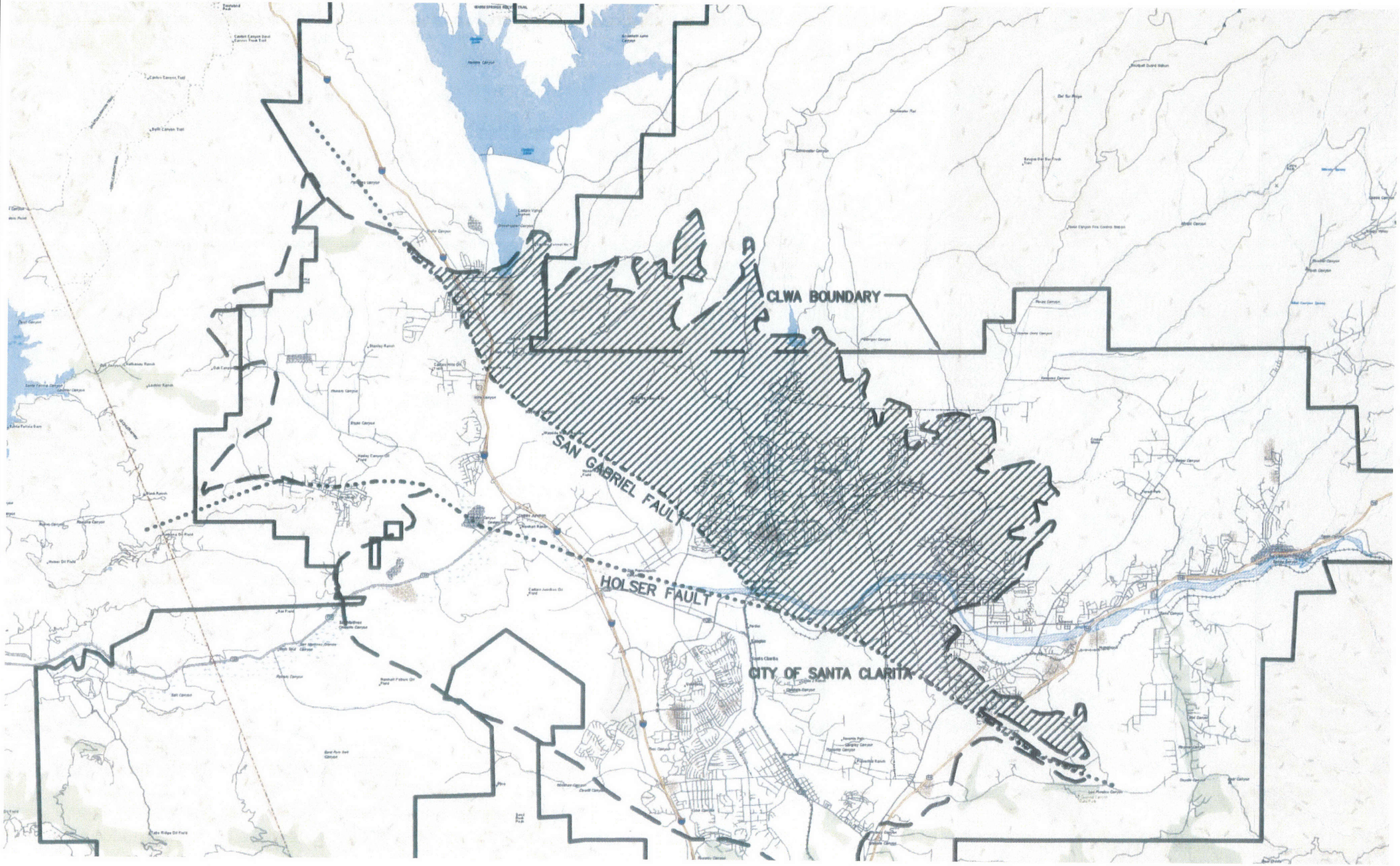
(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The CEQA Guidelines state:

> use of the Program EIR also enables the Lead Agency to characterize the overall program as the project being approved at that time. Following this approach, when individual activities within the program are proposed, the agency would be required to examine the individual activities to determine whether their effects were fully analyzed in the Program EIR. If the activities would have no effects beyond those analyzed in the Program EIR, the agency could assert that the activities are merely part of the program which had been approved earlier, and no further CEQA compliance would be required. This approach offers many possibilities for agencies to reduce their costs of CEQA compliance and still achieve high levels of environmental protection.

If a later activity would have effects that were not examined in the Program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. If a subsequent project is consistent with the description in the Program EIR, then no further CEQA analysis would be required. The RWMP has numerous components, the construction of which will be phased over time to utilize the increases in WRP production. The phasing of the RWMP would allow for some components of the RWMP to be comprehensively evaluated in the Program EIR, pursuant to CEQA, due to their near-term implementation schedule.



Aquifer Storage and Recovery

CLWA Recycled Water Master Plan

Figure 2-7

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Map Not to Scale

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The NWSP, as discussed in Section 2.4.2, is evaluated at a greater level of detail in this Program EIR because it is the only component of the RWMP that is planned for near-term construction. All other RWMP components are analyzed in this Program EIR to the greatest extent possible; however, less information is known about construction-level details. If it is determined that one of these components has environmental impacts that are not comprehensively examined in this Program EIR, subsequent environmental evaluation pursuant to CEQA will be conducted. These remaining RWMP components include the recycled water supply sources, remaining distribution system, steel tank reservoirs, recycled water pump station, booster pump station, and ASR program.

2.7.2 INDIRECT GROWTH-INDUCING IMPACTS

As previously discussed, the CLWA approved a Programmatic Environmental Impact Report (EIR) in 1988 that included a recycled water element. This element included a CLWA-completed environmental review of Phase I of the multi-phase program in the 1993 Draft Reclaimed Master Plan, and deliveries of recycled water began in 2003 for irrigation water supply at a golf course and in roadway median strips. The 700 af of recycled water use in 2003 represents initiation of the first phase, which includes up to 1,700 af/yr available for recycled water.

Based on the potential water availability, a recycled water supply of 15,000 af/yr to 19,000 af/yr is estimated to be sufficient if corresponding demand (i.e., customers) can be developed. Accordingly, a target recycled water system capacity of 17,441 af/yr is recommended by the RWMP. Therefore, the total water supply available for recycled water use is expected to reach approximately 17,400 af/yr over the next 25 years, as described in the 2005 UWMP (CLWA 2005c). Because 1,700 af/yr has already been approved for use through previously certified environmental documents, the RWMP would account for the use of 15,700 additional af/yr of recycled water that had not previously been available (17,400 af – 1,700 af = 15,700 af).

The proposed recycled water supply project would make additional potable water available to a portion of the CLWA service area. Although the availability of potable water is not, in and of itself, sufficient to cause population growth or development, if insufficient potable water were available, this would constitute an obstacle to population growth if the project proponents found no alternative water supply. Therefore, making additional water available for potable uses is considered to be growth-inducing and is deemed to remove an obstacle to population growth. This amount of recycled water is not anticipated to become fully available for approximately 25 years; however, consideration of the ultimate buildout of the RWMP is appropriate for the purposes of analysis. Section 4.0 of this EIR provides and analysis of project-related growth-inducing impacts.

3.1 AESTHETICS

This section of the EIR describes the visual character and viewsheds of the CLWA service area. The potential visual changes resulting from implementation of proposed project components are based on field reconnaissance and the review of site plans and aerial photographs.

3.1.1 ENVIRONMENTAL SETTING

CLWA Service Area

The Angeles National Forest, the Los Padres National Forest, and their ridgelines provide a visual backdrop for much of the Santa Clarita Valley. The Santa Clara River, which traverses through the City of Santa Clarita, the Santa Clarita Valley, and Castaic Lake/Castaic Lagoon are other important visual elements for the CLWA service area. The topography of the valley is varied with numerous canyons and waterways. Other significant areas that provide local visual identity include Bouquet Canyon, Castaic Creek, San Francisquito Canyon, Newhall Creek, Placerita Canyon, Sand Canyon, and the South Fork of the Santa Clara River.

The majority of the CLWA service area is developed, although portions of the Valley area still support ecologically important and scenic vegetation types, including oak woodlands, chaparral, sage scrub, and grasslands. Within this natural setting, several communities have emerged that are now part of the City of Santa Clarita, including Newhall, which is the oldest community in the Santa Clarita Valley; Saugus, the next community to be built; Canyon Country, the easternmost community in the City; Castaic, near Castaic Lake; and Valencia, a master-planned community. The master-planned community of Stevenson Ranch is located within unincorporated Los Angeles County. Freeways and roadways, such as Interstate 5 (I-5), State Route (SR) 14, and SR-126, provide view corridors through the Valley and into western Ventura County (CLWA 2002b).

Scenic Corridors

State of California Scenic Highway Program

In 1963, the State Legislature established the California Scenic Highway Program, which was intended to play an important role in encouraging the growth of the recreation and tourist industries. The Streets and Highway Code, Division 1, Chapter 2, Article 2.5, states that it was the intent of the Legislature to protect and enhance California's natural scenic beauty through special scenic conservation. Additionally, scenic routes would require careful coordination of planning, design, construction, and regulation of land use and development by state and local agencies to protect the "social and economic values provided by the State's scenic resources" (Caltrans 1996). According to the California Department of Transportation, the portion of I-5 that borders the western edge of the City of Santa Clarita, as well as the portion of SR-126 that is west of I-5, are designated as "*Eligible* State Scenic Highways" and have not yet been officially designated.

County of Los Angeles General Plan, Scenic Highways Element

The purpose of this element is to establish and protect scenic highways in Los Angeles County by identifying and evaluating a system of existing roads that traverse scenic beauty and interest. Although this element emphasizes development of a system of scenic corridors, importance is also placed on providing a practical means to protect scenic resources within selected corridors. Although the segment of I-5 within the CLWA service area is not an adopted Scenic Highway, it is identified in the Draft County of General Plan Update (not yet adopted) as a proposed Scenic Highway.

Tree Preservation Regulations

State law does not apply specific local zoning or building permit requirements to this type of CLWA project. Therefore, construction and operation associated with the implementation of the RWMP and the Northwest Spur Pipeline would not be subject to the City of Santa Clarita or the County of Los Angeles tree preservation ordinances. However, these ordinances are discussed below in acknowledgement of their role in defining what are considered to be locally acceptable methods of mitigating for impacts to trees.

City of Santa Clarita

The *City of Santa Clarita Municipal Code*, Title 17 (Zoning), Chapter 17.17 (Special Uses and Standards) outlines the requirements for oak tree preservation. The City's policy states that these trees are an indicator species for the natural communities and support a broad spectrum of other native plant and animal species, and that they serve as picturesque resources that "lend beauty and charm to the landscape, enhance the value of property, and preserve the character of the communities in which they exist."

The oak tree policy requires the preservation of all healthy oak trees unless compelling reasons justify the removal of the trees. The ordinance states that:

> No person shall cut, prune, remove, relocate, endanger, damage or encroach into the protected zone of any oak tree on any public or private property within the City except in accordance with the conditions of a valid oak tree permit issued by the City. The applicant shall be required to furnish all necessary information as determined by the Director together with the appropriate fee as established by Council resolution. Application materials shall include, but not be limited to, an Oak Tree Report conforming to the Director's specifications, a survey of the tree, its dripline and protected zone location, and illustrations and justifications of the proposal and tree tagging unless waived by the Director.

Heritage oak trees, as defined by the ordinance, have a more protected status. The ordinance states that:

> No Heritage Oak Tree shall be removed unless one or more of the above findings are made and the decision maker also finds that the Heritage Oak Tree's continued existence would prevent any reasonable development of the property and that no reasonable alternative can be accommodated due to the unique physical constraints of the property. It shall further be found that the removal of such Heritage Oak Tree will not be unreasonably detrimental to the community and surrounding area.

County of Los Angeles

The *County of Los Angeles Code*, Title 22 (Planning and Zoning), Chapter 22.56 (Conditional Use Permits, Variances, Nonconforming Uses, Temporary Uses, and Director's Review) outlines the requirements for oak tree preservation. The oak tree permit was established:

> (a) to recognize oak trees as significant historical, aesthetic and ecological resources, and as one of the most picturesque trees in Los Angeles County, lending beauty and charm to the natural and manmade landscape, enhancing the value of property, and the character of the communities in which they exist; and

(b) to create favorable conditions for the preservation and propagation of this unique, threatened plant heritage, particularly those trees which may be classified as heritage oak trees, for the benefit of current and future residents of Los Angeles County.

Except for emergency situations or minor pruning, as discussed in Section 22.56.2070:

a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade; in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.56.2180, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained.

3.1.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to aesthetic resources are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Have a substantial adverse effect on a scenic vista.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

c. Substantially degrade the existing visual character or quality of the site and its surroundings.

d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Direct Impacts

Threshold: *Would the project have a substantial adverse effect on a scenic vista?*

RWMP Components

Recycled Water Supply

The development of the recycled water supply from the Valencia Water Resources Plant (WRP), proposed Newhall WRP, Berry Petroleum oil field, and other miscellaneous sources would not require the construction of new facilities that could have a substantial adverse effect on a scenic vista. All recycled water facilities that would divert water into the proposed distribution system would be housed within existing or planned facilities and would not impact scenic vistas. Similarly, the use of recycled water would not differ aesthetically from current irrigation practices.

Reservoir Tanks

As discussed in Section 2.0, Project Description, the location of the reservoir tanks in the RWMP are only sited conceptually and the locations are likely to change when siting studies are concluded. Therefore, specific impacts to scenic vistas cannot be analyzed because the locations of the tanks are not finalized. However, certain characteristics of the reservoir tanks are known and can be analyzed. For instance, it is known that the reservoir tanks will need to be located at elevations of approximately 1,430 feet above sea level in order to maximize the use of gravity to distribute the recycled water throughout the distribution system. Additionally, the tanks that remain to be constructed will range in size from 3.0 million gallons (MG) to 3.5 MG. Tanks of this size could be approximately 100 to 150 feet in diameter, depending on the depth of the tanks, and would be approximately two stories high.

Rural areas on the outskirts of the City of Santa Clarita would provide more candidate sites than developed urban areas due to the amount of undeveloped and unentitled land required to construct a reservoir tank that can accommodate 3.0 MG to 3.5 MG. Rural areas have more natural scenic resources, including scenic vistas of hillside areas. The construction and operation of reservoir tanks in hillside areas could present a potentially significant impact to scenic vistas due to grading and changes in topography, removal of vegetation, and the placement of a structure in hillside areas.

Impacts associated with changes to topography and the removal of vegetation can be mitigated through the use of landform grading techniques and revegetation. If bench-cuts into hillsides are required to locate some reservoir tanks, then landform grading techniques should be incorporated that preserve as much of the natural topography as possible and create cuts that blend into the surrounding hillside areas. Additionally, graded areas should be revegetated upon completion of construction activities with native seeds and/or plants in order to restore previously vegetated areas to pre-construction conditions to the greatest extent practicable.

Construction of the reservoir tanks may include the grading of an access road for both construction activities and ongoing maintenance, if a road (such as a fire road) were not already present and available for use. The visual impact of the presence any access roads can also be mitigated by using landform grading and by revegetating along the roads.

Landscaping around the reservoir tanks and along access roads could provide a visual buffer between the tanks and surrounding areas. For example, trees and/or shrubs should be planted near the tanks to minimize the visual impacts to scenic vistas. Additionally, aesthetic treatments, such as careful selection of the reservoir paint color (low-reflective and camouflaging) and the use of aesthetically pleasing fencing materials, would further minimize impacts to scenic vistas. With the incorporation of the Mitigation Measures 3.1-1, 3.1-2, and 3.1-3 impacts to scenic vistas would be less than significant.

Recycled Water Pump Station/Booster Pump Stations

The recycled water pump stations (Valencia WRP and Berry Petroleum oil field) and the proposed booster pump station at the existing Honby Pump Station would be located on developed industrial properties and would not impact a scenic vista. The exact locations of any additional booster pump stations that may be needed in the service area are not known. However, the construction and operation of a booster pump station would not cause a significant impact to a scenic vista. Booster pump stations are relatively small facilities (typically less than 1,000 square feet) and can be housed within aesthetically appealing structures. They are one story and would not impede views of surrounding areas. Additionally, the implementation of Mitigation Measure 3.1-1 would further reduce potential impacts to scenic

vistas. Impacts from the construction of recycled water pump stations and booster pump stations on scenic vistas would be less than significant.

Distribution System

The majority of the distribution system pipelines would be located under existing roadways, while the portion of the distribution system located in rural areas, including pipelines to the above-ground reservoirs, may be constructed in undeveloped hillside areas. Construction activities in more rural areas may temporarily impact scenic vistas. However, construction activities would be very short in duration due to the relatively small size of the required construction footprint for pipeline installation. Pipelines would range in diameter, as presented in Table 2.6-4 of the Section 2.0, Project Description. As described for the Northwest Spur Pipeline, typical pipeline construction would require construction trenches to be approximately 42 to 72 inches wide, depending on the pipeline diameter, and approximately six to nine feet deep. A minimum impact corridor measuring approximately 20 to 22 feet wide, which includes approximately eight feet on either side of the trench for construction equipment, would be required.

In general, a minimum of several hundred feet of pipeline could be completed in one day. Therefore, construction-related aesthetic impacts would generally last less than one week in any one location. Additionally, upon completion of the construction activities, all pipelines would be permanently located underground and would have no impact on scenic vistas. Any native or landscaped vegetation that was disturbed during construction would be restored upon completion of construction activities, as specified by Mitigation Measure 3.1-1. Potential impacts to scenic vistas would therefore only be temporary and would be less than significant.

Aquifer Storage and Recovery (ASR)

The ASR option for seasonal storage would require the construction of associated pipelines and water wells in order to deposit and withdraw the stored water. The ASR would be entirely underground and would therefore have no impacts on scenic vistas. However, the construction of pipelines would have a temporary aesthetic impact similar to the impacts described above for the Distribution System. The construction of well heads to retrieve the stored water during the high-demand season could also present a temporary impact during construction activities, and a permanent impact for the operation of the well. However, water wells are small structures that are generally unobtrusive and would not impede views of scenic vistas. The presence of water wells may have an adverse aesthetic impact, depending on the location of the facilities and the surrounding land uses, although the impact would not be significant due to the small size of the wells. Additionally, implementation of Mitigation Measure 3.1-1 would further reduce visual impacts to scenic vistas due to wellhead construction and operation.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be located within the right-of-way of The Old Road, Henry Mayo Drive, and Commerce Center Drive, with the exception of approximately 0.11 mile that would be located near the entrance to the Valencia WRP. These roadways are not designated in the Los Angeles County General Plan as having scenic vistas. An approximately 0.5 mile stretch of The Old Road is adjacent to the Santa Clara River, which could be considered a scenic vista. However, views of the river would only be temporarily impacted during construction activities, and permanent views would be unaltered because the pipeline would be entirely underground near the river. The pipeline would be located under the existing bridge over Castaic Creek and therefore may be visible from creekside vantage points. However, the pipeline would be attached to an existing structure and would not significantly alter the aesthetics of the creek or the bridge structure.

Total area required for the three pump stations would be approximately 1,000 square feet each and the pumps would be housed in a single-story structure less than 1,000 square feet in size. Two of these structures are currently surrounded by open space, but have been previously graded in association with the development of an adjacent commercial center. These two sites would be consistent with the planned commercial land use of the adjacent property and would not have a substantial adverse effect on a scenic vista.

The pump station located at the intersection of Henry Mayo Drive and Commerce Center Drive is currently open space between SR-126 and Henry Mayo Drive. This area does not currently contain any mature vegetation or trees and has been graded in the past. It is surrounded by three sides by major roadways and development on the site would not have a substantial adverse effect on a scenic vista.

Construction activities for the pipeline would temporarily impact the views from these roadways due to signage, traffic-control measures (orange cones/barrels), and construction equipment. Construction activities for the booster pump station would also temporarily impact views from The Old Road. However, this impact would be temporary and would not significantly impact a scenic vista. Construction impacts would be less than significant.

Threshold: *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Threshold: *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

RWMP Components

Recycled Water Supply

As previously discussed, the development and use of the recycled water supply and associated recycled water facilities would not have aesthetic impacts because no new facilities would be constructed. In the case of the Newhall Ranch WRP, the impacts associated with the construction of this facility have been previously analyzed in a certified EIR for the Newhall Ranch (Impact Sciences 1999).

Reservoir Tanks

The portion of I-5 in Santa Clarita and the portion of SR-126 west of I-5 are designated by Caltrans and the County of Los Angeles as an "Eligible State Scenic Highway" that has not yet been officially designated. Currently, the RWMP does not have any reservoir tanks planned in locations that are directly adjacent to or within the immediate viewshed of either of these freeways. There are no reservoir tanks proposed near the Santa Clara River, which is a natural scenic resource for the area. There are no other special geologic or natural environmental features that are specified in the County of Los Angeles, County of Ventura, or the City of Santa Clarita General Plans.

However, because the locations of the reservoir tanks are only conceptual, the tank locations presented in the RWMP are subject to change. If a reservoir tank were located within the viewshed of these eligible state scenic highways or would impact other important scenic resources, the project could result in significant visual impacts. Implementation of Mitigation Measures 3.1-1, 3.1-2, and 3.1-3 would reduce these impacts to less than significant.

Construction of the reservoir tanks in the hillside areas has the potential to damage scenic resources, such as trees and vegetation in open space areas. As previously discussed, trees are considered to be scenic resources for the County of Los Angeles, County of Ventura, and the City of Santa Clarita. The removal of trees could constitute a significant impact to the visual character of the impacted area. As previously discussed, state law does not apply specific local zoning, building, or permit requirements to this type of CLWA project. However, this EIR uses such ordinances as examples of locally acceptable mitigation measures. Therefore, any trees, including oak trees, that would be removed due to siting of the reservoir tanks would be subject to mitigation and would be replaced at a minimum 1:1 ratio, as specified in Mitigation Measure 3.1-4. Further, Mitigation Measure 3.1-4 has been repeated in Section 3.4, Biological Resources, to address impacts to trees. Please refer to Section 3.4 for a more detailed discussion of the impacts to biological resources, including trees.

Implementation of Mitigation Measures 3.1-1 and 3.1-4 would ensure that impacts to scenic resources (trees and/or vegetation) would be temporary and less than significant.

Recycled Water Pump Station/Booster Pump Stations

The recycled water pump stations (Valencia WRP and Berry Petroleum oil field) and the proposed booster pump station at the existing Honby Pump Station would be located on developed industrial properties and would not impact scenic resources (such as trees or rock outcroppings) adjacent to a scenic highway. The exact locations of any additional booster pump stations that may be needed in the service area are not known. Therefore, the construction and operation of a booster pump station may cause a significant impact to scenic resources, including trees. The implementation of Mitigation Measures 3.1-1 and 3.1-4 would reduce potential impacts to scenic resources to a less-than-significant level.

Distribution System

The majority of the distribution system would be located in the urban areas of the City of Santa Clarita under existing roadways and would not damage scenic resources; however, a portion of the system would be located in rural and undeveloped areas. Construction activities in the rural and undeveloped areas have the potential to damage scenic resources (such as trees and vegetation) in open space areas. The construction of the distribution system would require the partial excavation of urban roadways, which may result in temporary aesthetic impacts to the visual character and/or quality of the site and its surroundings. Construction activities would be noticeable to motorists, pedestrians, and adjacent property owners and businesses.

However, construction impacts would be temporary and there would be no operational impacts to scenic resources because the distribution system would be located entirely underground. Construction activities are generally a common and accepted feature of the urban environment. Upon completion of the construction phase, the distribution system would be completely underground and would have no permanent impacts on aesthetics. Maintenance-related impacts would also be temporary. If construction activities were to impact trees, vegetation in open space areas or other scenic resources, implementation of the Mitigation Measures 3.1-1 and 3.1-4 would ensure that impacts would be temporary and less than significant.

Aquifer Storage and Recovery (ASR)

The ASR would be completely underground and would not have any impact on scenic resources or the visual character or the surroundings of the site. The construction of associated pipelines and wells may have a temporary and less than significant impact on the visual character of the surrounding area. The long-term operation of the water wells, which are

relatively small facilities, would not substantially alter the aesthetics of the surroundings. Potential impacts would be less than significant. As previously discussed, if trees would be impacted by the construction of the ASR facilities, implementation of the mitigation program would reduce impacts to a less-than-significant level.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be located within the right-of-way of The Old Road, Henry Mayo Drive, and Commerce Center Drive, with the exception of approximately 0.11 mile located near the entrance to the Valencia WRP. CLWA would construct and operate a new booster pump station located within a graded parcel located on the west side of the Old Road approximately one-quarter mile north of Magic Mountain Parkway and one pump station near the intersection of the Old Road and Henry Mayo Drive. There are no scenic resources (such as trees or rock outcroppings) or historic structures located within this right-of-way or on the graded parcels that would be impacted by the Northwest Spur Pipeline. The pump station located at the intersection of Henry Mayo Drive and Commerce Center Drive is currently open space between SR-126 and Henry Mayo Drive and does not currently contain any mature vegetation or trees. It is surrounded by three sides by major roadways and development on the site would not have a substantial adverse effect on the aesthetics of the area.

A discussion of historic resources in the vicinity of the Northwest Spur Pipeline is presented in Section 3.5, Cultural Resources, of this EIR. The width required for the trenching is approximately 42 to 72 inches wide, with approximately eight feet for construction staging on either side of the trench, for a total construction footprint of approximately 22 feet. The trenching would be entirely within the roadway easement and would not impact trees adjacent to the project area.

As previously discussed, an approximately 0.5-mile stretch of The Old Road is adjacent to the Santa Clara River, which could be considered a scenic vista. However, views of the river would only be temporarily impacted during construction activities, and permanent views would be unaltered because the pipeline would be entirely underground near the river. The booster pump station would be located on an existing graded parcel adjacent to future commercial land uses and would not damage scenic resources (such as trees), nor would it substantially alter the visual character of the site. The pipeline would be attached to the underside of the existing bridge structure and would not significantly alter the aesthetics of the creek or the bridge structure. Therefore, impacts to scenic resources would be temporary and less than significant.

Construction activities would result in temporary impacts to the general visual character of the area. However, upon completion of the Northwest Spur Pipeline, the entire project would be located underground and would not be visible. There would be no long-term operational impacts to scenic resources or to the visual character of the area.

Threshold: *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

RWMP Components

Recycled Water Supply

The development of the recycled water supply and associated recycled water facilities that would divert water into the proposed distribution system would be housed within existing or planned facilities and would not create new sources of light or glare.

Reservoir Tanks

The reservoir tanks may be equipped with motion-detection lighting for security. These lights would be directed downward and would only be triggered upon movement around each tank. The effect of the lighting would be geographically limited and periodic. Therefore, security lighting would not generate a substantial new source of light and glare.

The reservoir tanks are large steel cylindrical structures that have the potential to reflect sunlight or other bright sources of light. Therefore, without proper paint techniques and visual buffers from vegetation, the structures could become a new source for glare, which would result in significant impacts. The implementation of Mitigation Measure 3.1-2, which requires the use of low-reflective and camouflaging paint colors, as well as Mitigation Measure 3.1-1, which requires vegetation restoration, would reduce potential impacts associated with glare to a less-than-significant level.

Recycled Water Pump Station/Booster Pump Stations

The recycled water pump stations and booster pump stations would not be a substantial source of light or glare. The pump stations may be equipped with motion detection lighting for security. As with the reservoir tank security lighting, the motion detection lights would be directed downward and would only be triggered upon movement around each pump station. Therefore, security lighting would not generate a substantial new source of light and glare.

The pump station facilities would not be large enough to reflect light or cause glare. To further minimize the nominal visibility of these components, they would also be finished with low-reflective paint that is similar to or the same as the reservoir tanks. Potential impacts would be less than significant.

Distribution System

The construction and operation of the distribution system would not create a new permanent substantial source of light or glare that could adversely affect day or nighttime views of the area. Temporary construction activities would likely occur during daylight hours and would not require temporary night lighting. Once construction activities are completed, the distribution would have no associated lighting or facilities that could generate glare.

However, if construction activities were performed at night in order to minimize traffic impacts, then artificial lighting would be required to illuminate the work area. The distribution system would be installed under major commercial corridors as well as residential streets and would therefore have the potential to create significant temporary impacts due to nighttime lighting. In order to mitigate for potential impacts due to nighttime lighting for construction activities near sensitive receptors (such as residential homes) construction activities will be restricted to daytime hours on residential streets. For commercial corridors, nighttime construction would require temporary artificial lighting over the construction site. The areas of construction adjacent to walkways or roadways must be well lit and clearly defined at all times to ensure the safety of motorists and pedestrians. Additionally, temporary lighting must be directed onto the worksite and avoid any spill-over light or glare onto adjacent properties. Implementation of Mitigation Measure 3.1-5, which includes the requirements discussed above, would reduce impacts to less than significant.

Aquifer Storage and Recovery (ASR)

The ASR would be completely underground and would not have any impact on the light or glare. The construction of the associated pipelines and wellheads would occur during daylight hours and would not require temporary night lighting, nor would the operation of the facilities require night lighting. Impacts regarding light and glare would be less than significant.

Northwest Spur Pipeline

The construction and operation of the Northwest Spur Pipeline would not create a new permanent substantial source of light or glare that could adversely affect day or nighttime views of the area. Temporary construction activities would likely occur during daylight hours and would not require temporary night lighting. Once construction activities were completed, the pipeline would have no associated lighting or facilities that could generate glare.

However, if construction activities were performed at night in order to minimize traffic impacts, then artificial lighting would be required to illuminate the work area. As illustrated in Figure 2-5 in Section 2.0, Project Description, the pipeline is located in a sparsely developed industrial area with no adjacent residential development. Therefore, temporary impacts due to nighttime lighting, if required, would be less than significant.

The booster pump stations would not be a substantial source of light or glare. The pump stations may be equipped with motion-detection lighting for security that would be directed downward and would only be triggered upon movement around the pump station. Therefore, security lighting would not generate a substantial new source of light and glare. The pump stations would not be large enough to reflect light or cause glare. Potential impacts would therefore be less than significant.

Indirect Impacts

The implementation of the RWMP would not result in any indirect aesthetic impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.1.3 MITIGATION PROGRAM

Project Design Features

- All roadways and other public structures that would be impacted by construction of the RWMP (i.e., underground distribution system), shall be repaired and restored upon completion of the construction activities, consistent with the requirements of the encroachment permits from the local transportation agencies.

- Where security lighting is installed, the light fixtures selected will have motion-detector technology and be directed downwards to limit the geographic extent of light and glare.

Regulatory Requirements

None

Mitigation Measures

MM 3.1-1 Prior to commencement of grading activities for each phase of development, CLWA shall prepare a Landscape Plan that identifies specific measures to

reduce the visual impacts associated with the visible above ground RWMP facilities, including the strategic planting of native trees, shrubs, and other vegetation to buffer the views of the structures.

MM 3.1-2 Reservoir tanks and booster pump stations shall be painted with low-reflective paint in a camouflaging color that blends with the surrounding environment.

MM 3.1-3 Prior to the commencement of grading activities, CLWA's Engineer for the grading and construction of the reservoir tanks shall provide a Grading Plan that incorporates landform grading techniques and minimizes changes to topography. If bench-cuts into hillsides are required to locate some reservoir tanks or other RWMP facilities, then landform grading techniques shall be incorporated that preserve as much of the natural topography as possible and that create cuts which blend into the surrounding hillside areas.

MM 3.1-4 Prior to the commencement of grading activities for any component of the RWMP, a qualified Biologist/Arborist shall be consulted to determine the biological/aesthetic value of potentially impacted trees. All impacted native trees shall be replaced at a minimum ratio of 1:1 to mitigate for the loss of biological value, and all impacted ornamental trees shall be replaced at a minimum ratio of 1:1 to mitigate for aesthetic impacts. All impacted trees shall be replaced with appropriate native species at an ultimate ratio to be determined by a qualified Biologist/Arborist.

MM 3.1-5 In order to mitigate for potential impacts due to nighttime lighting for construction activities near sensitive receptors, such as residential homes, construction activities will be restricted to daytime hours on residential streets. For nighttime construction in commercial corridors, the areas of pipeline construction adjacent to walkways or roadways must be well lit and clearly defined at all times to ensure the safety of motorists and pedestrians. Temporary lighting must be directed onto the worksite and avoid any spill-over light or glare onto adjacent properties. Construction activities will comply with encroachment permit requirements and approved traffic control plan requirements.

3.1.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, potentially significant aesthetic impacts would be reduced to less-than-significant levels. Implementation of the RWMP would not create significant unavoidable adverse aesthetic impacts.

3.2 AGRICULTURAL RESOURCES

This section of the EIR describes the agricultural resources of the CLWA service area. The analysis of potential impacts that would result from implementation of the proposed project's components is based on the State of California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP) and the Williamson Act.

3.2.1 ENVIRONMENTAL SETTING

CLWA Service Area

California is the largest agricultural producer and exporter in the Untied States. According to a May 2001 report by the Agricultural Issues Center of the University of California, the state lost approximately 500,000 acres of farmland to urban development between 1988 and 1998 (PCL 2005). The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, established the state's primary program for the retention of private land in agriculture and open space use. It is a voluntary, locally administered program that offers reduced property taxes on lands that have enforceable restrictions on their use via contracts between individual land owners and local governments. Ventura County participates in this program; Los Angeles County does not. A small portion of the western side of the CLWA service area is located in Ventura County; however, the service area does not contain lands under a Williamson Act contract.

Regulatory Setting

Farmland Mapping and Monitoring Program

The State FMMP categorizes and maps Important Farmlands, including those defined as Prime, Unique, and of Statewide and Local Importance. Jurisdictions may, at their discretion, establish criteria for designation of farmlands of local importance.

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Local governments, in turn, receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

3.2.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to agricultural resources are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

b. Conflict with zoning for agricultural use, or a Williamson Act contract.

c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

Direct Impacts

Threshold: *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

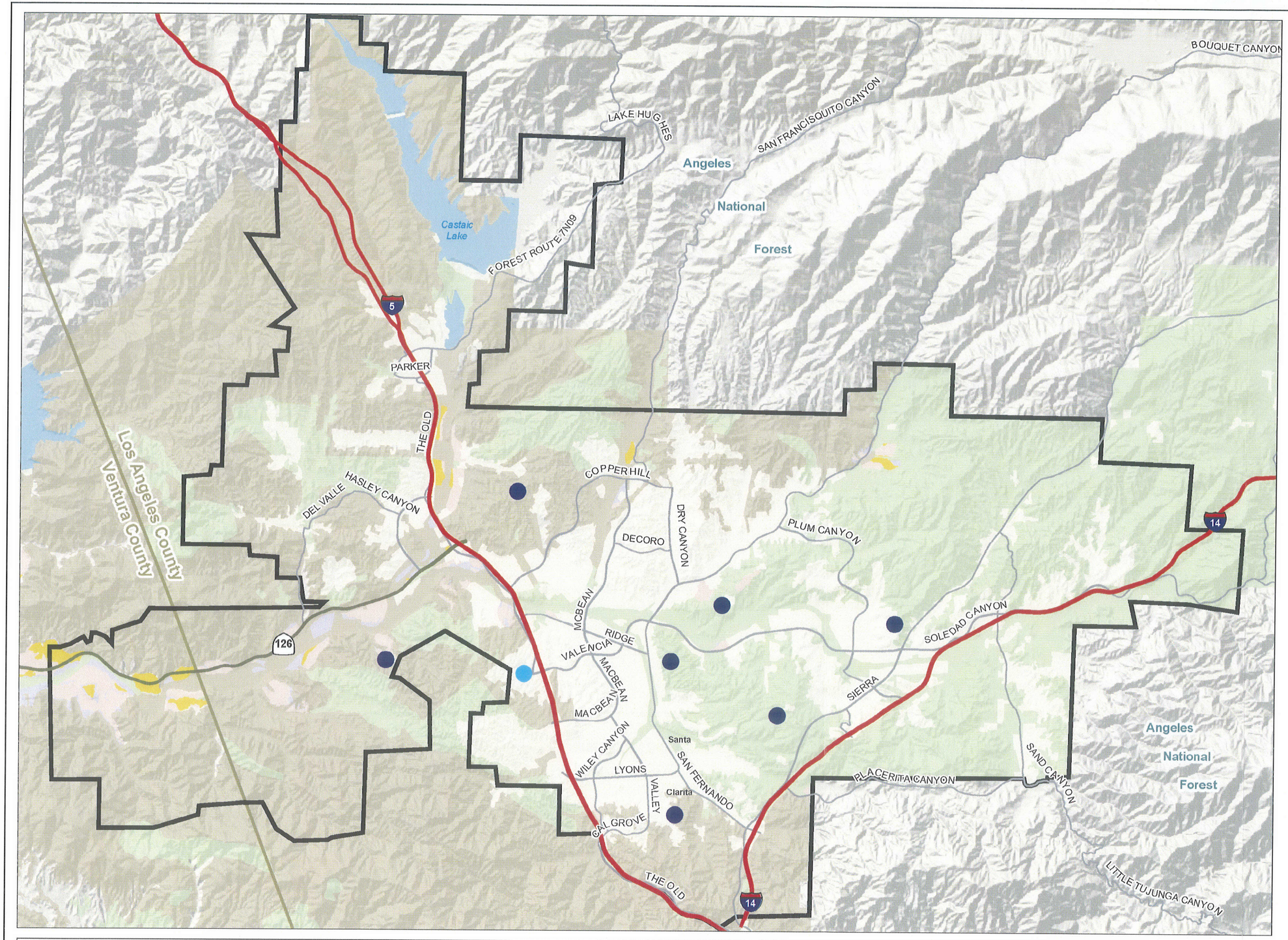
RWMP Components

Over 90 percent of the CLWA service area has been inventoried and mapped by the State's FMMP. As illustrated in Figure 3.2-1, the CLWA service area contains lands that are designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance. The amount of land designated for agriculture within the Santa Clarita Valley planning area is approximately one square mile (City of Santa Clarita 1991). Approximately three percent of the mapped area within the CLWA service area is designated as either Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Less than one percent of the CLWA service area is designated by Los Angeles County as Farmland of Local Importance.

Implementation of the RWMP and the use of recycled water would have no impact on the conversion of farmland to non-agricultural uses. The construction of the recycled water pump station at the Placerita Oil Field and the booster pump station (at the existing Honby site) would be located on currently developed industrial property and would not have an impact on the conversion of farmland to non-agricultural uses.

Several of the proposed pipeline extensions for the RWMP distribution system are located within areas with farmland designations. The pipelines would be placed under the roadways that traverse such properties and would not require the disturbance of lands under agricultural cultivation. The extension of pipelines through areas designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance would not impact the uses of the agricultural lands.

As depicted in Figure 3.2-1, one of the proposed reservoir tanks is conceptually located within an area designated as Prime Farmland. However, it is unlikely that the reservoir tank would impact farmland due to the relatively high elevation requirements (hillside areas), which are not ideal for farming. Additionally, because the locations of the reservoir tanks as depicted in the RWMP are conceptual in nature and subject to change, it is likely that the reservoir tanks could be relocated to avoid impacts to farmland. The same can be said for other facilities, including the ASR wellheads and additional booster pump station(s). If the reservoir tank were to be constructed within Prime Farmland, impacts to agricultural resources would be adverse, but less than significant. Construction of a reservoir tank would generally impact between one-half and one acre of land. Impacts to this small amount of acreage would not significantly impact important farmlands and impacts, if any, would be less than significant. Additionally, because the exact locations of the ASR facilities (wellheads) and additional booster pump station(s) are not known, there is the potential for adverse impacts to farmlands; however, these impacts would also be less than significant due to the small amount of acreage subject to development.



Legend

- Proposed Reservoir
- Completed Reservoir
- Service Area

Important Farmland Categories

- Urban
- Grazing
- Prime
- State
- Unique
- Water
- Other

Source: California Department of Conservation, Farmland Mapping and Monitoring Program. Los Angeles County, 2004 and Ventura County, 2002

Farmland Map

Castaic Lake Water Agency

Figure 3.2-1

N W E S

2 1 0 2 Miles

BonTerra CONSULTING

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Northwest Spur Pipeline

The Northwest Spur Pipeline would be located within the right-of-way of The Old Road, Henry Mayo Drive, and Commerce Center Drive, with the exception of approximately 0.11 mile located near the entrance to the Valencia WRP. The booster pump stations would be located on currently graded non-agricultural land adjacent to The Old Road and Henry Mayo Drive. No component of the NWSP is adjacent to or directly affects agricultural lands. No agricultural lands would be impacted.

Threshold: *Would the project conflict with zoning for agricultural use or a Williamson Act contract?*

RWMP Components

The CLWA service area boundary is adjacent to lands in Ventura County that are under a Williamson Act contract. However, these areas are not within the CLWA service area. Therefore, the proposed project would not impact lands under a Williamson Act.

Some unincorporated areas of the County of Los Angeles are zoned for Heavy Agriculture (A-2); however, State law does not apply specific local zoning or building requirements to the location or construction of facilities for the production, generation, storage, or transmission of water (*California Government Code*, Section 53091). Therefore, the proposed project would not conflict with zoning for agricultural use.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be located within the right-of-way of The Old Road, Henry Mayo Drive, and Commerce Center Drive, with the exception of approximately 0.11 mile located near the entrance to the Valencia WRP. The booster pump stations would be located on currently graded non-agricultural land adjacent to The Old Road and Henry Mayo Drive. No agricultural lands or zoning would be impacted.

Threshold: *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

RWMP Components

The RWMP would not encourage or require any other changes in the existing environment that would result in conversion of farmland to a non-agricultural use. Direct impacts and possible mitigation measures for the development of a reservoir tank within Prime Farmland was previously discussed.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be located within the right-of-way of The Old Road, Henry Mayo Drive, and Commerce Center Drive, with the exception of approximately 0.11 mile located near the entrance to the Valencia WRP. The booster pump stations would be located on a currently graded non-agricultural land adjacent to The Old Road and Henry May Drive. No agricultural lands would be impacted.

Indirect Impacts

The implementation of the RWMP would not result in any indirect agricultural impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.2.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

None

Mitigation Measures

None Required.

3.2.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Implementation of the RWMP would not create significant unavoidable adverse agricultural impacts.

3.3 AIR QUALITY

This section of the EIR analyzes the proposed project's potential effect on air quality as a result of construction-related and operational emissions. This analysis is based on the *Air Quality Assessment for the Castaic Lake Water Agency Recycled Water Master Plan*, prepared by RBF Consulting, dated July 19, 2006, located in Appendix B.

3.3.1 ENVIRONMENTAL SETTING

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The CLWA service area lies within the South Coast Air Basin (Basin). The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), and manmade influences (land development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of air pollutants throughout the Basin. Details of the Basin's physical characteristics and its status with respect to air quality standards are described below.

Climate and Meteorology

Basin Characteristics. The Basin is a 6,600-square-mile area that is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. Its terrain and geographical location determine the distinctive climate of the Basin, as it is a coastal plain with connecting broad valleys and low hills.

Basin Climate. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. The climate is characterized by mild winters, warm summers, moderate rainfall, and is tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The climate in the Basin is characterized by moderate temperatures and comfortable humidity, with precipitation limited to a few storms during the winter season (November through April). However, with a less-pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. All portions of the Basin have had recorded temperatures over 100 degrees in recent years.

Although the Basin has a semi-arid climate, the air near the surface is moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by off-shore winds, the ocean effect is dominant. Periods with heavy fog are frequent; and low stratus clouds, occasionally referred to as "high fog" are a characteristic climate feature. Annual average relative humidity is 70 percent at the coast and 57 percent in the eastern part of the Basin. Precipitation is typically 9 to 14 inches annually and is rarely in the form of snow or hail because of warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

Local Climate. The Santa Clarita area experiences the warmest weather during the month of August with high maximum temperatures averaging 95 degrees Fahrenheit (°F). On average, the coolest month is January with minimum temperatures averaging below 40°F. The Santa Clarita area experiences the wettest months between January and February, averaging 3.17 inches in precipitation.

Smog Formation. The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original, or "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen)

react to form "secondary" pollutants (primarily oxidants). Because this process is time-dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of southern California. However, most of the smog in the Santa Clarita Valley is created by the transport of pollutants from the Los Angeles Basin, as opposed to local sources.

Temperature Inversions. The southern California region frequently experiences temperature inversions, a meteorological condition in which pollutants are trapped and accumulate close to the ground. The inversion is a layer of warm, dry air that overlays cool, moist marine air, and is a normal condition in the Basin. The cool, damp, and hazy sea air capped by coastal clouds is heavier than the warm, clear air that acts as a lid through which the marine layer cannot rise. In southern California, smog is generally the result of these temperature inversions combined with coastal day winds from the oceans to the local mountains (which prevent dispersal of the pollutants). These onshore winds occur during the daylight hours, causing the formation of secondary pollutants by allowing primary pollutants to react with sunlight. The Basin's limited ability to disperse these pollutants is limited by the typically low wind speeds.

Air Inversions. The area in which the CLWA is located offers approximately 300 days per year of clear skies and sunshine. However, it is still susceptible to air inversions, a meteorological condition in which a layer of stagnant air is trapped near the ground where it is further loaded with pollutants. These air inversions cause haziness, which is caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources.

Regulatory Framework

Regulatory oversight for air quality in the Basin rests with the South Coast Air Quality Management District (SCAQMD) at the regional level, the CARB at the State level, and the U.S. Environmental Protection Agency (EPA) Region IX office at the Federal level.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and subsequently amended numerous times. The FCAA established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants, with an adequate margin of safety, and are meant to protect the public health and welfare. The criteria pollutants are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2, a form of nitrogen oxides [NO_x]), sulfur oxides (SO_2, a form of sulfur oxides [SO_x]), particulate matter less than 10 microns in diameter (PM_{10}), and lead (Pb); refer to Table 3.3-1. The EPA also has regulatory and enforcement jurisdiction over emission sources beyond State waters, and sources that are under the exclusive authority of the Federal government, such as aircraft, locomotives, and interstate trucking.

The EPA designates areas within the nation as either in attainment or non-attainment for each criteria pollutant based on whether the NAAQS have been achieved. An area is designated as being in non-attainment for a pollutant if air quality data show that the NAAQS for the pollutant was violated at least once during the previous three calendar years. Exceedances affected by highly irregular or infrequent events are not considered violations of a federal standard, and are not used as a basis for designating areas as being in non-attainment. The Basin is designated as a Federal non-attainment area for O_3, CO, PM_{10}, and $PM_{2.5}$. Ozone is designated as severe for the 8-hour average while PM_{10} is designated as being in serious non-attainment. $PM_{2.5}$ and CO are simply in non-attainment. The Basin has technically achieved attainment with CO levels

below the Federal standard, but is still in the process of being redesignated by the EPA. The Basin is also designated as an attainment area for NO_2, SO_2, and Pb (Table 3.3-1).

The FCAA also specifies future dates for achieving compliance with the NAAQS and mandates that states develop State Implementation Plans (SIPs) to manage the attainment, maintenance, and enforcement of the NAAQS. SIPs provide detailed descriptions of the programs a state will use to carry out its responsibilities under the FCAA. SIPs are collections of the regulations used by a state to reduce air pollution. A SIP shows how a state would meet the NAAQS by its attainment dates. The FCAA requires that EPA approve each SIP.

California Air Resources Board

The CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 3.3-1, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility-reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for preparation of the SIP for the State of California.

Like the EPA, the CARB also designates areas within California as either in attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as being in non-attainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as being in non-attainment. Under the CCAA, the Basin is designated as a non-attainment area for O_3, PM_{10}, and $PM_{2.5}$. The Basin is designated as an attainment area for CO, NO_2, SO_2, and Pb (Table 3.3-1).

Similar to the FCAA, all areas designated as being in non-attainment under the CCAA are required to prepare plans showing how the area would meet the CAAQS by its attainment dates. The AQMP is the plan for improving air quality in the region.

TABLE 3.3-1
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California[1]		Federal[2]	
		Standards[3]	Attainment Status	Standards[4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 $\mu g/m^3$)	Extreme Non-attainment	N/A[5]	N/A[5]
	8 Hour	0.07 ppm	Unclassified	0.08 ppm (157 $\mu g/m^3$)	Severe Non-attainment
Particulate Matter (PM_{10})	24 Hour	50 $\mu g/m^3$	Non-attainment	150 $\mu g/m^3$	Serious Non-attainment
	Annual Arithmetic Mean	20 $\mu g/m^3$	Non-attainment	50 $\mu g/m^3$	Serious Non-attainment
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard	Non-attainment	65 $\mu g/m^3$	Non-attainment

TABLE 3.3-1 (Continued)
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California[1]		Federal[2]	
		Standards[3]	Attainment Status	Standards[4]	Attainment Status
	Annual Arithmetic Mean	12 μg/m^3	Non-attainment	15 μg/m^3	Non-attainment
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Non-attainment[6]
	1 Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Non-attainment[6]
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	N/A	N/A	0.053 ppm (100 μg/m^3)	Attainment
	1 Hour	0.25 ppm (470 μg/m^3)	Attainment	N/A	N/A
Lead (Pb)	30 Days Average	1.5 μg/m^3	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 μg/m^3	Attainment
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	N/A	N/A	0.030 ppm (80 μg/m^3)	Attainment
	24 Hour	0.04 ppm (105 μg/m^3)	Attainment	0.14 ppm (365 μg/m^3)	Attainment
	3 Hour	N/A	N/A	N/A	Attainment
	1 Hour	0.25 ppm (655 μg/m^3)	Attainment	N/A	N/A
Visibility-Reducing Particles	8 Hour (10 AM to 6 PM, PST)	Extinction Coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 μg/m3	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m3)	Unclassified		

ppm = parts per million; μg/ m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; km = kilometers; RH = relative humidity; PST = Pacific Standard Time; N/A = not applicable.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter (PM_{10}), and visibility-reducing particles are values that are not to be exceeded. All other values are not to be equaled or exceeded. California ambient air quality standards (CAAQS) are listed in the Table of Standards in Section 70200 of Title 17 of the *California Code of Regulations*. In 1990, the CARB identified vinyl chloride as a Toxic Air Contaminant and determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.
2. National standards (other than for ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The EPA may also designate an area as *attainment/unclassifiable* if (1) monitored air quality data show that the area has not violated the ozone standard over a three-year period or (2) there is not enough information to determine the air quality in the area. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over the three years, are equal to or less than the standard. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees centigrade (°C) and a reference pressure of 760 millimeters (mm) of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); parts per million (ppm) in this table refers to ppm by volume (micromoles of pollutant per mole of gas).
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. The Federal 1-hour ozone standard was revoked on June 15, 2005.
6. Technically, the Basin is in attainment for CO; however, it has not yet been designated by the EPA.

TABLE 3.3-1 (Continued)
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California[1]		Federal[2]	
		Standards[3]	Attainment Status	Standards[4]	Attainment Status
Source: California Air Resources Board and EPA 2006.					

South Coast Air Quality Management District (SCAQMD)

The proposed project is located in the Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD has jurisdiction of 10,743 square miles, which includes the counties of Orange, Riverside, San Bernardino, the non-desert portions of Los Angeles, and portions of the Salton Sea Air Basin and Mojave Desert Air Basin. The SCAQMD is one out of 35 air quality management districts that have prepared AQMPs to reduce annual emissions by five percent. The most recent AQMP was adopted in 2003.

The 2003 AQMP proposes policies and measures to achieve Federal and State standards for improved air quality in the Basin and those portions of the Salton Sea Air Basin (formerly named the Southeast Desert Air Basin) that are under SCAQMD jurisdiction. The AQMP requires emissions-reducing activities; control technology for existing sources; control programs for area sources and indirect sources; an SCAQMD permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions; transportation control measures; and demonstration of compliance with the CARB's established reporting periods of compliance with air quality goals.

The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Basin's Ozone SIP for the attainment of the Federal ozone air quality standard. However, the 2003 AQMP points to the urgent need for additional emission reductions (beyond those incorporated in the 1997/99 Plan) to offset increased emission estimates from mobile sources and to meet all Federal criteria pollutant standards within the time frames allowed under the FCAA.

The SCAQMD also adopts rules to implement portions of the AQMP. Several of these rules may apply to construction or operation of a project. For example, Rule 403 requires that projects implement best available fugitive dust control measures during active construction operations. Rule 401 provides rules during on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads.

Rules and regulations are also provided for long-term operation of a project. Some of these rules include Rules 201, 202, and 203 which require permits for certain stationary sources that may be part of a project (e.g., heaters and generators). Other regulations such as Regulation XIII or Regulation XXX, which, among other things require that Best Available Control Technology (BACT) is utilized to reduce pollutants and that any increases of criteria air pollutants be offset by achieving equivalent emission reductions at a facility within the Basin.

In addition to the AQMP and its rules and regulations, the SCAQMD published the *CEQA Air Quality Handbook* (Handbook). The SCAQMD Handbook provides guidance to assist local government agencies and consultants in developing the environmental documents required by CEQA. With the help of the Handbook, local land use planners and other consultants are able to analyze and document how proposed and existing projects affect air quality and should be able to fulfill the requirements of the CEQA review process. The SCAQMD is in the process of developing an Air Quality Analysis Guidance Handbook to replace the CEQA Air Quality Handbook, which was approved by the AQMD Governing Board in 1993.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and serves as a forum for regional issues that relate to transportation, the economy, community development, and the environment. The SCAG serves as the federally designated metropolitan planning organization (MPO) for the southern California region and is the largest MPO in the United States. With respect to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) for the region, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the AQMP. Under the FCAA, the SCAG is responsible for determining conformity of projects, plans, and programs with the SCAQMD AQMP. As indicated in the SCAQMD Handbook, there are two main indicators of consistency:

- The project would not increase the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

- The project would not exceed the AQMP's assumptions for 2020 or increments based on the year of project buildout and phase.

State Air Toxics Program

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern in southern California. There are hundreds of different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum-refining and chrome-plating operations; commercial operations such as gasoline stations and dry cleaners; and motor vehicle engine exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of TACs include cancer, birth defects, neurological damage, and death.

Air Toxics Program. California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 of the *Health and Safety Code* and Part 6 (Air Toxics "Hot Spots" Information and Assessment). The CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment (OEHHA), administers the program and identifies TACs. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified TAC to below a specific threshold (based on its effects on health) or to the lowest concentration achievable through use of best available control technology for toxics (T-BACT). Air quality control agencies, including the SCAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules; the CARB must do this within six months of adoption.

Emissions Inventories and Health Risk Assessments. The Air Toxics "Hot Spots" Information and Assessment Act, codified in the California *Health and Safety Code* (H&SC), requires operators of specified facilities within the SCAQMD to submit (to the SCAQMD) comprehensive emissions inventory plans and reports by specified dates. The SCAQMD reviews the reports and then places the facilities into high-, intermediate-, and low-priority categories, based on the potency, toxicity, quantity, and volume of hazardous emissions and the proximity of potential sensitive receptors to the facility. Facilities designated as high-priority (Category A) must prepare a health risk assessment (HRA). If the HRA finds a significant risk, the surrounding population must be notified. The emissions inventory data are to be updated every two years.

Diesel Engine Emissions. The CARB, in 1998, identified diesel engine particulate matter as a TAC. Mobile sources (including trucks, buses, automobiles, trains, ships, and farm equipment) are by far the largest source of diesel emissions. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Many of these toxic compounds adhere to the particles and, because diesel particles are very small, they penetrate deeply into the lungs. Diesel engine particulate matter is a human carcinogen.

Before California listed particulate matter from diesel engine exhaust as a TAC, it had already adopted various regulations that would reduce diesel emissions. These regulations include new standards for diesel engine fuel; exhaust emission standards for new diesel trucks, buses, automobiles, and utility equipment; and inspection and maintenance requirements for heavy-duty vehicles. Since listing diesel exhaust as a TAC, the CARB has been evaluating what additional regulatory action is needed to reduce public exposure. The CARB does not anticipate banning diesel fuel or engines; however, it may consider additional requirements for them, as well as other measures to reduce public exposure.

Ambient Air Quality

The SCAQMD monitors air quality at 37 monitoring stations throughout the Basin. Each monitoring station is located within a Source Receptor Area (SRA). The communities within an SRA are expected to have similar climatology and ambient air pollutant concentrations. The proposed project is located within SRA 13. The Santa Clarita - Placerita Monitoring Station was used to gather data for the project area for O_3, CO, NO_2, and PM_{10}. The data collected at this monitoring station represent the air quality experienced onsite. Ambient air quality data from 2001 to 2005 from this monitoring station is provided in Table 3.3-2.

TABLE 3.3-2
LOCAL AMBIENT AIR QUALITY LEVELS

Pollutant	Standard (Maximum Allowable Amount)		Year	Maximum Concentration[1]	Number of Days Standard has Exceeded	
	California	Federal Primary			State	Federal
Carbon Monoxide (CO)	9.0 ppm for 8 hours	9.0 ppm for 8 hours	2001[2]	3.3 ppm	0	0
			2002[2]	3.2	0	0
			2003[2]	4.5	0	0
			2004[2]	3.2	0	0
			2005[2]	1.3	0	0
Ozone (O_3) (8 Hours)	0.7 ppm for 8 hours	0.08 ppm for 8 hours	2001[2]	0.13 ppm	N/A[6]	25
			2002[2]	0.14	N/A[6]	52
			2003[2]	0.15	N/A[6]	69
			2004[2]	0.13	N/A[6]	52
			2005[2]	0.14	N/A[6]	47
Ozone (O_3) (Hourly)	0.09 ppm for 1 hour	N/A	2001[2]	0.18 ppm	44	9
			2002[2]	0.17	81	32
			2003[2]	0.19	89	35
			2004[2]	0.16	69	13
			2005[2]	0.17	65	11
Nitrogen Dioxide (NO_2)	0.25 ppm for 1 hour	N/A	2001[2]	0.11 ppm	0	0
			2002[2]	0.11	0	0
			2003[2]	0.10	0	0
			2004[2]	0.09	0	0
			2005[2]	0.09	0	0
Particulate Matter (PM_{10})[5]	50 $\mu g/m^3$ for 24 hours	150 $\mu g/m^3$ for 24 hours	2001[2]	62.0 $\mu g/m^3$	4	0
			2002[2]	61.0	6	0
			2003[2]	72.0	8	0
			2004[2]	54.0	1	0
			2005[2]	55.0	1	0

ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter
N/A = not applicable
PM_{10} = particulate matter 10 microns in diameter or less
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less

1. Maximum concentrations are measured over the same period as the California standard.
2. Santa Clarita - Placerita is located at 22224 Placerita Canyon Rd, Santa Clarita, California 91321
3. Reseda Monitoring Station is located at 18330 Gault St , Reseda, California 91702
4. PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
5. PM_{10} exceedances are derived from the number of samples exceeded, not days.
6. The 8-hour ozone standard of 0.07 ppm was recently adopted in April 28, 2005, and no monitoring data for exceedances has yet been recorded. Additionally, a State $PM_{2.5}$ standard has not yet been officially established by the CARB for monitoring exceedance purposes.

Source: CARB 2006

Carbon Monoxide (CO)

CO is an odorless, colorless toxic gas that is formed by the incomplete combustion of fuels. Motor vehicles are by far the largest source of CO in the Basin. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, unconsciousness, and even death; CO also aggravates cardiovascular disease. For CO, the subject portion of the Basin is designated as an attainment area by State and Federal standards.

Ozone (O_3)

Ozone (O_3) occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately ten miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

"Bad" ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), NOx, and sunlight to form; therefore, VOCs and NOx are ozone precursors. VOCs and NOx are emitted from various sources throughout the City. To reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Ozone is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease (such as asthma and chronic pulmonary lung disease) are considered to be the most susceptible to the health effects of ozone. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue as well as chest pain, dry throat, headache, and nausea.

The 1-hour O_3 levels ranged from 0.19 parts per million (ppm) to 0.16 ppm from 2001 to 2005 at the Santa Clarita Monitoring Station. The State ozone standard is 0.09 ppm, averaged over one hour, and was exceeded 348 days between 2001 and 2005. The Federal Standard for O_3 was revoked as of June 5, 2005, and therefore does not apply. The 8-hour O_3 levels at the Santa Clarita Monitoring Station ranged between 0.15 ppm and 0.13 ppm from 2001 to 2005. The State 8-hour standard for O_3 is 0.07 ppm, and was recently approved by CARB on April 28, 2005. The exceedences for the State standards have not yet been provided by CARB. The Federal standard for O_3 is 0.12 ppm, averaged over one hour, and was not exceeded between 2001 and 2005.

Nitrogen Dioxide (NO_2)

Nitrogen oxides (NO_x) are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO_x can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_x concentrations that are typically much higher than those normally found in the ambient air, may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction. The entire Basin is designated as an attainment area for State and Federal NO_2 standards.

Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air, and is a mixture of materials that can include smoke, soot, dust, salt, acids, and metals. Particulate matter also forms when gases emitted from motor vehicles and industrial sources undergo chemical reactions in the atmosphere. Some particles are large or dark enough to be seen as soot or smoke; others are so small that they can be detected only with an electron microscope. PM_{10} particles are less than or equal to 10 microns in aerodynamic diameter. In the western United States, there are sources of PM_{10} in both urban and rural areas. PM_{10} is emitted from stationary and mobile sources, including diesel trucks and other motor vehicles, power plants, industrial processing, wood-burning stoves and fireplaces, wildfires, dust from roads, construction, landfills, agriculture, and fugitive windblown dust.

PM_{10} particles are small enough to be inhaled into, and lodge into, the deepest parts of the lung. Health problems begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health-related effects include reduced visibility and soiling of buildings.

The State standard for PM_{10} is 50 micrograms per cubic meter ($\mu g/m_3$) averaged over 24 hours; this standard was exceeded 20 days at the Santa Clarita Monitoring Station between 2001 and 2005. The Federal standard for PM_{10} is 150 $\mu g/m_3$ averaged over 24 hours; this standard was not exceeded between 2001 and 2005.

On January 5, 2005, the EPA published a Final Rule in the *Federal Register* that designates the Basin as a non-attainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, the CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised and established due to CARB's increasing concerns that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging. For $PM_{2.5}$, the State standard is 50 $\mu g/m_3$ and the Federal standard is 65 $\mu g/m_3$ over 24 hours. At the Santa Clarita Monitoring Station, there were no exceedances between 2001 and 2005.

Reactive Organic Gases and Volatile Organic Compounds

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (ROGs) and volatile organic compounds (VOCs). ROGs comprise all hydrocarbons except those the CARB exempted. Therefore, ROGs are a set of organic gases based on State rules and regulations. VOCs are similar to ROGs in that they comprise all organic gases except those exempted by federal law. VOCs are therefore a set of organic gases based on federal rules and regulations. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

The health effects of hydrocarbons result from the formation of ozone and its related health effects. High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of

hydrocarbons are considered toxic air contaminants ("air toxics"). There are no separate health standards for VOCs, although some VOCs are also toxic; an example is benzene, which is both a VOC and a carcinogen.

Visibility

Visibility is the distance that atmospheric conditions permit a person to see at any given time. Technically, visibility is defined as the farthest distance an observer can distinguish a large black object against the horizon. Reduced visibility aesthetically impairs surroundings and also interferes with aircraft operations. Visibility may be impaired by natural sources (including aerosols [fine particles suspended in the air] such as precipitation, fog, soil particles, volcanic emissions, vegetation, sea spray, and organic decomposition products) and man-made sources (such as sulfates and nitrates). The greatest contribution to visibility reduction in the Basin is light scattering by fine-particle aerosols, which are 0.1 to 2 microns in size.

Lead (Pb)

In the Basin, atmospheric lead is generated almost entirely by the combustion of leaded gasoline. Atmospheric lead concentrations have been reduced substantially in recent years due to the lowering of average lead content in gasoline; in 1982 lead was less than one percent of sampled total suspended particulates (TSP). Exceedances of the State air quality standard in Los Angeles County for lead (monthly average concentration of 1.50 $\mu g/m^3$) are confined to the densely populated portions where vehicle traffic is greatest.

Sensitive Receptors

Certain land uses are considered particularly sensitive to air quality impacts. Schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas are all considered sensitive receptors. Residential areas are also considered air-sensitive. The proposed RWMP would include facilities that would be located throughout the City of Santa Clarita and could potentially be located adjacent to sensitive receptors such as schools, hospitals, and rest homes. At this time, facilities for the RWMP are conceptual and subject to change. Pipelines would be located in existing or future public rights-of-way, including streets, highways, utility corridors, or other publicly owned facilities.

Air Quality Assessment Methodology

This analysis of quality impacts utilized the emission factors from URBEMIS 2002 for the construction (short-term) and operational (long-term) analyses. URBEMIS 2002 operational emissions address emissions from two separate sources: stationary area sources (i.e., emissions from space heating, landscape maintenance) and mobile sources. These emissions are calculated for the project buildout period and take into account future vehicle fleet mixes and emission controls.

URBEMIS 2002 was developed to provide meaningful analyses of both short- and long-term impacts and to encourage the development of mitigation measures during project planning. Discrete URBEMIS 2002 analysis is limited to annual periods. URBEMIS 2002 uses a simplified set of emission factors to estimate impacts separately for predetermined construction periods and for operational periods as independent events, and does not factor in: small discrete periods of project overlap; incremental periods smaller than one year; individual buildout rates for each particular element of construction; scheduled utilization of individual pieces of equipment; pro-ration of occupancy; retrofit technology over the life of the equipment; pollutant reactivity; or pollutant transport.

Where site-specific or project-specific data were available, URBEMIS 2002 factors were modified to fit with the information. Where little or no information was available, default values were selected. For the cumulative analysis, air emissions that occur in the Basin were utilized.

3.3.2 POTENTIAL IMPACTS

Significance Criteria

CEQA Thresholds

The criteria used to determine the significance of impacts to air quality are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Conflict with or obstruct implementation of the applicable air quality plan.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

d. Expose sensitive receptors to substantial pollutant concentrations.

e. Create objectionable odors affecting a substantial number of people.

SCAQMD Thresholds

The SCAQMD *CEQA Air Quality Handbook* (1993) provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. Exceedance of the SCAQMD thresholds could result in a potentially significant impact. However, it is ultimately the lead agency that establishes the thresholds of significance for determining impacts. If the project proposes development in excess of the established thresholds, as specified in Table 3.3-3, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

TABLE 3.3-3
SCAQMD EMISSION THRESHOLDS

Phase	Pollutant (lbs/day)				
	ROG	NO_x	CO	SO_x	PM_{10}
Construction	75	100	550	150	150
Operational	55	55	550	150	150
ROG = reactive organic gases ; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter; up to 10 microns					
Source: SCAQMD 1993.					

Local Carbon Monoxide Standards

In addition, the significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards, as follows:

- If the project causes an exceedance of either the state one-hour or eight-hour CO concentrations, the project would be considered to have a significant local impact.

- If ambient levels already exceed a State or Federal standard, then project emissions would be considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more.

Direct Impacts

Threshold: *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

RWMP Components

The proposed project would represent an incremental negative impact on air quality in the Basin. Of primary concern is whether project-related impacts have been properly anticipated in the regional air quality planning process and whether these impacts have been reduced whenever feasible. Therefore, it is necessary to assess the project's consistency with the AQMP.

According to the SCAQMD's *CEQA Air Quality Handbook* (1993), the purpose of the consistency finding is to determine whether a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus whether it would interfere with the region's ability to comply with Federal and State air quality standards. If the project is inconsistent, local governments need to consider project modifications or inclusion of mitigation to eliminate the inconsistency. Note that even if a project is consistent, it could still have a significant impact on air quality under CEQA. Consistency with the AQMP means that a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the Federal and State air quality standards.

Per the *CEQA Air Quality Handbook* (SCAQMD 1993), there are two main indicators of a project's consistency with the AQMP:

- Whether the project would increase the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and

- Whether the project would exceed the AQMP's assumptions for 2010 or yearly increments, based on the year of project buildout and phase.

Since the AQMP is based on the City and County's General Plan assumptions, the proposed RWMP would be consistent because it would provide recycled water to locally approved development allowed by the City and County general plans. The proposed project would not establish new or modified permitted sources of non-attainment air contaminants or their precursors, with the exception of back-up generators at the pump stations. The back up generators would be operated less than 200 hours per year and would not be subject to review by the SCAQMD under Regulation XII (New Source Review). Therefore, the proposed project would not obstruct or conflict implementation of the AQMP and there would be less-than-significant impacts.

Northwest Spur Pipeline

As discussed below, construction of the Northwest Spur Pipeline would not exceed SCAQMD thresholds for criteria pollutants. Like the remaining RWMP components, this component would

be sized consistent to serve growth projections in the City and County general plans. Therefore, the Northwest Spur Pipeline would also be consistent with the SCAQMD's AQMP.

Threshold: *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

RWMP Components

Construction (Short-Term) Impacts

Construction activities produce combustion emissions from various sources including demolition, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling, and motor vehicles transporting the construction crew. The use of construction equipment on site would result in localized vehicular exhaust emissions. Vehicular exhaust emissions during site construction would vary as construction activity levels change. As mentioned previously, details regarding the construction operation and schedule for the proposed RWMP are not available. Therefore, the analysis bases the construction characteristics on similar projects.

In an effort to provide the most conservative analysis, a worst-case theoretical scenario was developed based on anticipated future water demands and prior construction of Phase 1A of the RWMP, including the Northwest Spur Pipeline. It has been assumed that a worst-case construction scenario would occur from development of the following components of the RWMP: a pump station, one water storage reservoir, approximately 280 feet of pipeline per day (2.35 miles of pipeline), and the ASR facility. Analysis has assumed that construction of such facilities could occur in a span of one year. This type of construction has been quantified using the URBEMIS 2002 computer model; the results of the modeling are shown in Table 3.3-4.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on site as the equipment is used, and emissions from trucks transporting materials to and from the site. Emitted pollutants would include CO, ROG, NO_x, and PM_{10}. As presented in Table 3.3-4, construction equipment and worker vehicle exhaust emissions would be less than significant for all criteria pollutants except for NO_x.

Standard SCAQMD regulations would be adhered to, such as maintaining all construction equipment in proper tune and shutting down equipment when not in use for extended periods of time. Prior to the approval of the project plans and specifications for any component of the RWMP that has the potential to exceed AQMD daily NO_X significance thresholds, the construction contractor would include a "Diesel Fuel Reduction Plan", as specified in Mitigation Measure 3.3-5, to reduce NO_x emissions. However, analysis shows that NO_x emissions would still exceed the SCAQMD thresholds and thus would be significant and unavoidable.

TABLE 3.3-4
RWMP CONSTRUCTION AIR EMISSIONS

Emissions Source	Pollutant (pounds/day)[a]				
	ROG	NO_x	CO	PM_{10}	SO_x
YEAR 1					
Unmitigated Emissions	18.17	122.66	145.95	41.91	0.00
SCAQMD Thresholds	75	100	550	150	150
Is Threshold Exceeded?	***NO***	***YES***	***NO***	***NO***	***NO***
Mitigated Emissions[b]	18.17	122.66	145.95	10.5	0.00
SCAQMD Thresholds	75	100	550	150	150
Is Threshold Exceeded After Mitigation?	***NO***	***YES***	***NO***	***NO***	***NO***

ROG = reactive organic gases ; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter, up to 10 microns

a. Emissions were calculated using the URBEMIS 2002 Computer Model, as recommended by the SCAQMD.

b. The reduction/credits for construction emission mitigations are based on mitigation included in the UREBMIS 2002 computer model and as typically required by the SCAQMD through Rule 403. The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

Refer to Appendix A (Air Modeling Data) of the Air Quality Report prepared by RBF Consulting, 2005 for assumptions used in this analysis, including quantified emissions reduction by mitigation measures.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the SCAQMD, the ROG emissions associated with paving have been quantified with the URBEMIS 2002 model. As shown in Table 3.3-4, ROG emissions would be well below the SCAQMD standards. In addition, all architectural coatings for proposed RWMP facilities would comply with SCAQMD Regulation XI, Rule 1113 – *Architectural Coating*. Compliance with Rule 1113, as specified in Regulatory Requirement 3.3-1, provides specifications on painting practices and the regulation of the ROG content of paint. ROG emissions would be less than significant.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust (PM_{10}) emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project vicinity. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill operations, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions.

Fugitive dust from grading and construction is expected to be short-term and would cease following project completion. Additionally, most of this material is compromised of inert silicates rather than the complex organic particulates released from combustion sources, which are more harmful to health. Dust (larger than 10 microns) generated by such activities is considered a nuisance, but not a health concern as with particulates less than 10 microns in diameter (PM_{10}) discussed above. Therefore, the analysis of the impact of fugitive dust emissions pursuant to both CEQA and the SCAQMD requirements focuses on the amount of PM_{10} generated by construction activities.

Table 3.3-4 indicates that the proposed project would not exceed the SCAQMD thresholds for PM_{10}. The proposed project would be required to comply with SCAQMD Rule 403, as specified in Regulatory Requirement 3.3-2, which helps minimize fugitive dust impacts to the local area. Impacts regarding PM_{10} would be less than significant.

Operational (Long-Term) Impacts

The operation of the proposed RWMP involves two primary activities that would generate air emissions. These activities are:

- Electricity generation for consumption related to pump station operations.
- Mobile source emissions from employee maintenance of the proposed RWMP components.

Pump Stations

The Valencia WRP pump station is currently sized for 4,000 gallons per minute (gpm) and assuming constant flow rate and total daily flow equivalent to the peak day demand, the ultimate capacity of the recycled water pump station would be 12,000 gpm. A second recycled water pump station would need to be constructed at the Berry Petroleum oil field facility (Placerita Oil Field). The capacity of the oil field facility pump station would be 1,250 gpm and the pump station would be located at the oil field in the 1,680-elevation service zone. The recycled water pump stations would be controlled by water surface elevations in the storage reservoirs. The existing Honby Pump Station (5,000 gpm capacity) could be modified to provide recycled water service. In addition, users with pressures less than 55 pounds per square inch (psi) may require independent booster pump stations.

Stationary sources of long-term air emissions include machinery and equipment, as well as indirect emissions from electricity generation. All water pumps associated with the proposed RWMP are anticipated to be electrically powered, and would not directly generate air emissions. However, it is anticipated that pump stations would require emergency diesel-fired back up generators in case of loss of power.

The SCAQMD must grant a Permit to Construct for the project prior to installation of all internal combustion engines (ICEs) that have greater than 50 brake horsepower (bhp) at the project site. In order for generators to be considered for "emergency backup" use by the SCAQMD, they cannot operate more than 200 hours a year and can only operate in the event of an emergency power failure or for routine testing and maintenance. Furthermore, the SCAQMD has provided a list of equipment models that meet all applicable air quality requirements and have issued permits to the dealer/distributor of these engines. In addition to applying for a Permit to Construct from the SCAQMD, it would be necessary to apply for a Special Application for Temporary Emergency Authorization to Operate Electric Backup Generator during Involuntary Power Service Interruptions Permit. At this time, specifications on machinery for the proposed RWMP are not finalized. However, the RWMP would be required to adhere to all rules and regulations provided by the SCAQMD. Specifically, SQAQMD Rule 201 below would be required to be met through Regulatory Requirement 3.3-3. Therefore impacts would be less than significant.

Pump stations would occasionally require maintenance, which would generate worker trips. Maintenance activities would occur at sporadic instances, and therefore modeling was not conducted since trip generation from such activities would not result in any significant air quality impacts. The pump stations and other mechanical equipment, as specified in Regulatory Requirement 3.3-3 and Regulatory Requirement 3.3-4, would be subject to the listed rules and regulations:

- *Rule 201 - Permit to Construct* – Rule 201 establishes an orderly procedure for the review of new and modified sources of air pollution through the issuance of permits. Rule 201 specifies that any facility that installs non-exempt equipment which causes or controls the emissions of air pollutants must first obtain a Permit to Construct from the SCAQMD. Project components would be subject to this Rule if a backup generator or engine was installed that was greater than 50 bhp.

- *Rule 402 – Nuisance* – Prohibits the discharge from a facility of air pollutants that cause injury, detriment, nuisance, or annoyance to the public or that damage business or property.

Storage Reservoirs

It is anticipated that the use of storage facilities would not create a significant impact to ambient air quality. Should storage reservoirs require the use of mechanical equipment (such as pump stations and other machinery), the proposed project would be subject to the SCAQMD's rules and regulations described for the pump stations above. Impacts are anticipated to be less than significant.

Aquifer Storage and Recovery (ASR)

ASR facilities may include the use of pump stations and other mechanical equipment. Any pump stations associated with possible ASR facilities would be subject to the same SCAQMD rules and regulations provided regarding on-site stationary sources. With compliance of all rules and regulations, impacts are anticipated to be less than significant.

Recycled Water Transmission Pipelines

Operation of the pipeline facilities would not result in significant impacts since these facilities do not emit any emissions. The following are general pipeline and interconnection operation and maintenance procedures:

- Weekly visual inspection of pipeline alignments;
- Mowing within pipeline alignments;
- Testing and servicing of blow-off valves, air/vacuum relief valve assemblies, as needed;
- Yearly walking of pipeline alignment and inspection of cathodic protection system; and
- Pressure testing pipeline, painting pipeline appurtenances, repairing tunnel entrances, and repairing minor leaks in buried pipeline joints or segments (when necessary).

Trips to and from the proposed pipeline alignments would not result in substantial increases of traffic along roadways and thus would not result in significant mobile source emissions that would exceed SCAQMD thresholds. It is anticipated that impacts would be less than significant.

Long-Term Mobile Air Emissions

The proposed RWMP is not a trip-generating project and would therefore not substantially increase the amount of trips on existing roadways. The vehicle trips associated with the proposed project would primarily include scheduled maintenance of RWMP components occasionally throughout the year. The limited trips would not pose a significant impact to air quality. Hence, localized CO hotspot analysis would not be required and impacts are considered less than significant.

Northwest Spur Pipeline

Construction (Short-Term) Impacts

Construction of the proposed Northwest Spur Pipeline, which is anticipated to begin in Year 2007, would require construction trenches to be approximately 42 to 72 inches wide and approximately six to nine feet deep. All pipeline construction, with the exception of approximately 0.11 miles of pipeline near the Valencia WRP, would be under paved or improved roadways. Additionally, this component includes the construction of three pump stations. Similar to the RWMP, construction of the Northwest Spur Pipeline was quantified using the URBEMIS 2002 Model. Table 3.3-5 shows the results of the modeling.

TABLE 3.3-5
NORTHWEST SPUR PIPELINE CONSTRUCTION EMISSIONS

Emissions Source	Pollutant (pounds/day)[a]				
	ROG	NO_X	CO	PM_{10}	SO_X
Unmitigated Emissions	10.98	75.10	86.90	55.22	0.01
SCAQMD Thresholds	75	100	550	150	150
Is Threshold Exceeded?	***NO***	***NO***	***NO***	***NO***	***NO***
Mitigated Emissions[b]	10.98	75.10	86.90	11.07	0.01
SCAQMD Thresholds	75	100	550	150	150
Is Threshold Exceeded After Mitigation?	***NO***	***NO***	***NO***	***NO***	***NO***

ROG = reactive organic gases ; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter; up to 10 microns

a. Emissions were calculated using the URBEMIS 2002 Computer Model, as recommended by the SCAQMD.

b. The reduction/credits for construction emission mitigations are based on mitigation included in the UREBMIS 2002 computer model and as typically required by the SCAQMD through Rule 403. The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

Refer to Appendix A (Air Modeling Data) of the Air Quality Report prepared by RBF Consulting, 2005 for assumptions used in this analysis, including quantified emissions reduction by mitigation measures.

As indicated in Table 3.3-5, the proposed Northwest Spur Pipeline would not exceed the SCAQMD thresholds for criteria pollutants. Therefore, the analysis has determined that construction-related impacts would be less than significant.

Operational (Long-Term) Impacts

As previously discussed in the RWMP discussion, pipelines would not result in significant impacts to air quality. Pipelines would not emit any criteria pollutants and trips associated with the maintenance of pipelines would not substantially impact air quality. The proposed Northwest Spur Pipeline would also include three 9,000 gpm pump stations. These pump stations would be subject to the SCAQMD Rules 201 and 402 discussed above, which would

stations would be subject to the SCAQMD Rules 201 and 402 discussed above, which would ensure that pump station-related impacts would be less than significant. Therefore long-term air quality impacts from the Northwest Spur Pipeline would be less than significant.

Threshold: *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

RWMP Components

Because the Basin is in non-attainment for O_3 (State & Federal), PM_{10} (State & Federal) and $PM_{2.5}$ (State), additional ROG and NO_x emissions (precursors to O_3), CO, and PM_{10} would be considered significant and unavoidable cumulative impacts. However, SCAQMD standards and City/County Code requirements would be implemented on a project-by-project basis. Even though the RWMP has unavoidable impacts for short-term construction activities, long-term operational impacts air quality would be less than significant.

The RWMP would be consistent with AQMD standards for operational conditions and the project is not a substantial trip-generating project such as a residential or commercial development (i.e., would not conflict with Regional Transportation Plan). Once construction of the RWMP or the Northwest Spur Pipeline is in place, emissions generated by this project would be relatively low. Furthermore, stationary equipment would be subject to SCAQMD permit requirements and would not result in significant impacts to ambient air quality. Therefore, impacts associated with the future buildout of the RWMP would have less-than-significant impacts in regards to cumulative impacts.

Northwest Spur Pipeline

Construction of the Northwest Spur Pipeline, as an individual phase of the RWMP, would not contribute to a cumulatively considerable net increase in O_3 and PM_{10}, because short-term emissions for all criteria pollutants would be below SCAQMD thresholds. The analysis of operational contributions to cumulative concentrations of criteria pollutants would be the same as the RWMP components described above. Specifically, because the Northwest Spur Pipeline would not be a substantial trip-generating project, emissions would be low. Stationary equipment would be subject to the SCAQMD permit requirements. Therefore, cumulative impacts associated with the buildout of the Northwest Spur Pipeline would be less than significant.

Threshold: *Would the project expose sensitive receptors to substantial pollutant concentrations?*

RWMP Components

Certain land uses are considered particularly sensitive to air quality impacts. Schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas are all considered sensitive receptors. Residential areas are also considered air-sensitive. The proposed RWMP would include facilities that would be located throughout the City of Santa Clarita and could potentially be located adjacent to sensitive receptors such as schools, hospitals, and rest homes. The RWMP is not a trip-generating project (with the exception of minor, maintenance-related trips) and would therefore not substantially increase the amount of off-site mobile source emissions. Additionally, long-term operational emissions would be well below SCAQMD standards. Therefore, as the RWMP would not cause a local or regional air quality exceedance, impacts to surrounding sensitive receptors would be less than significant.

Northwest Spur Pipeline

The proposed Northwest Spur Pipeline would be located along Commerce Center Drive, Henry Mayo Drive, and The Old Road. Surrounding land uses include primarily vacant and commercial/industrial land uses. These land uses would not be considered sensitive; therefore, this component of the RWMP would not expose sensitive receptors to substantial pollutant concentrations.

Threshold: *Would the project create objectionable odors affecting a substantial number of people?*

RWMP Components

Potential odors generated during construction operations would be temporary in nature and are concluded to result in less-than-significant impacts. The wellheads and pump stations would operate on electricity and would not generate diesel-related odors. When back-up generators would be required, emissions would be released that could be considered odorous; however, the back up generators are not anticipated to be operational more than 200 hours per year. Therefore, impacts associated with odor would be sporadic and less than significant.

Northwest Spur Pipeline

As discussed for the remaining RWMP components, potential odors generated during construction would be temporary and therefore less than significant.

Indirect Impacts

The implementation of the RWMP would not result in any indirect air quality impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.3.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

RR 3.3-1 The project shall comply with SCAQMD Rule 1113, which limits the ROG content of architectural coatings used in the Basin or shall allow the averaging of such coatings, as specified, so that actual emissions do not exceed the allowable emissions if all the averaged coatings had complied with the specified limits.

RR 3.3-2 During clearing, grading, earth moving or excavation operations, excessive fugitive dust emissions shall be controlled by regular water or other dust preventive measures using the following procedures, as specified in the SCAQMD Rule 403.

- Limit on-site vehicle speed to 25 miles per hour.
- Water or securely cover material transported on-site or off-site sufficiently to prevent generating excessive amounts of dust.

- Minimize area disturbed by clearing, grading, earth moving, or excavation operations so as to prevent generating excessive amounts of dust.

- Indicate these control techniques in project specifications. Compliance with the measure will be subject to periodic site inspections by CLWA.

- Prevent visible dust from the project from emanating beyond the property line, to the maximum extent feasible.

- Cease operations during high wind conditions, defined by Rule 403 as instantaneous wind speeds that exceed 25 miles per hour.

RR 3.3-3 Prior to construction of any RWMP development phase, if a backup generator or engine would be installed that was greater than 50 brake horsepower, then under SCAQMD Rule 201, CLWA shall apply for a Permit To Construct which provides an orderly procedure for the review of new and modified sources of air pollution.

RR 3.3-4 The project shall comply with SCAQMD Rule 402, which prohibits the discharge from a facility of air pollutants that cause injury, detriment, nuisance, or annoyance to the public or that damage business or property.

Mitigation Measures

MM 3.3-1 Prior to the approval of the project plans and specifications for any component of the RWMP that has the potential to exceed AQMD daily NO_X significance thresholds, the construction bid packages shall include a separate "Diesel Fuel Reduction Plan" for the RWMP. This plan shall identify the actions to be taken to reduce diesel fuel emissions during construction activities (inclusive of grading and excavation activities). Reductions in diesel fuel emissions can be achieved by measures including, but not limited to, the following: (a) use of alternative energy sources, such as compressed natural gas or liquefied petroleum gas, in mobile equipment and vehicles; (b) use of "retrofit technology," including diesel particulate traps, on existing diesel engines and vehicles; and (c) other appropriate measures. The Diesel Fuel Reduction Plan shall include the following provisions:

- All diesel-fueled off-road construction equipment shall be California Air Resources Board (CARB) certified or use post-combustion controls that reduce pollutant emissions to the same level as CARB-certified equipment. CARB-certified off-road engines are engines that are three years old or less and comply with lower emission standards. Post-combustion controls are devices that are installed downstream of the engine on the tailpipe to treat the exhaust. These devices are now widely used on construction equipment and are capable of removing over 90 percent of the PM_{10}, carbon monoxide, and volatile organic compounds from engine exhaust, depending on the specific device, sulfur content of the fuel, and specific engine. The most common and widely used post-combustion control devices are particulate traps (i.e., soot filters), oxidation catalysts, and combinations thereof.

- All diesel-fueled on-road construction vehicles shall meet the emissions standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used or older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible.

- The effectiveness of the latest diesel emission controls is highly dependant on the sulfur content of the fuel. Therefore, diesel fuel used by on-road and off-road construction equipment shall be low sulfur (>15 ppm) or other alternative low polluting diesel fuel formulation.

3.3.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Regulatory Requirements 3.3-1 through 3.3-4 and Mitigation Measure 3.3-1 would reduce air quality impacts to the maximum extent practicable. There would be significant unavoidable direct impacts to air quality related to exceedance of NO_x emissions during construction of RWMP components after implementation of feasible Regulatory Requirements and the Mitigation Measure. There would be no significant unavoidable direct impacts to air quality from operation of the RWMP components.

3.4 BIOLOGICAL RESOURCES

This section of the EIR analyzes the proposed project's potential impacts to vegetation and wildlife. This analysis is based on the *CLWA Recycled Water Master Plan Biological Technical Report*, prepared by BonTerra Consulting, October 16, 2006, and is located in Appendix C.

3.4.1 ENVIRONMENTAL SETTING

Survey Methodologies

The data provided in the Biological Technical Report is based on field observations from a general survey of the Northwest Spur Pipeline study area, aerial photographs, and a variety of documents describing regional biological resources. Due to the lack of suitable habitat for special status species within the Northwest Spur Pipeline study area, no focused surveys were conducted. No field surveys were conducted for the remainder of the RWMP service area, because the precise location and construction schedule for these components have not yet been determined. A literature review was conducted, as discussed below. In addition, other pertinent information was obtained from studies and other documentation prepared by biologists who have previously conducted research in the immediate vicinity.

Vegetation Mapping and General Plant Surveys

BonTerra Consulting conducted a literature search to identify special status plants, wildlife, and habitats known to occur in the vicinity of the proposed project area. The following documents were reviewed for this purpose:

- *Plants* - Electronic Inventory of Rare and Endangered Vascular Plants of California; the California Natural Diversity Data Base (CNDDB); various Federal Register notices from the USFWS regarding listing status of plant species; and the List of Special Vascular Plants, Bryophytes, and Lichens.

- *Wildlife* - California Wildlife Habitat Relationships Database System; the CNDDB; various Federal Register notices from the USFWS regarding listing status of wildlife species; and List of Special Animals.

- *Vegetation Types* - the CNDDB, County of Los Angeles Oak Tree Ordinance (CLATO).

The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California, The California Department of Fish and Game's (CDFG) CNDDB, and compendia of special status species published by the U.S. Fish and Wildlife Service (USFWS) and CDFG were reviewed.

A general survey of the Northwest Spur Pipeline study area was conducted on August 5, 2005, by BonTerra Consulting. The purpose of the surveys was to describe the vegetation present in the Northwest Spur Pipeline study area and to evaluate the potential for the presence of special status species. All plant species observed were recorded in field notes. Plant species were identified in the field or collected for later identification. General vegetation information for the remainder of the RWMP service area was incorporated into the Biological Technical Report from a variety of botanical sources.

General Wildlife Surveys

The general survey of the Northwest Spur Pipeline study area for amphibians, reptiles, birds, and mammals was conducted simultaneously with the general survey of the vegetation conducted on August 5, 2005. During the surveys, the Northwest Spur Pipeline study area was evaluated for its potential to support special status species that are known to occur or are expected to occur in the region. All species observed during the course of the surveys were documented in field notes. Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic signs, including scat, footprints, scratch-outs, dust bowls, burrows, and trails. General wildlife information for the remainder of the RWMP service area was incorporated into the Biological Technical Report from a variety of sources that describe regional biological resources.

Existing Biological Resources

Vegetation types, wildlife populations and movement patterns, special status vegetation types, and special status plant and wildlife species that are either known to occur or that potentially occurring in the study areas are discussed below. Due to the broad level of analysis for the overall RWMP service area, the discussion of the vegetation and wildlife are combined and consider the entire CLWA service area. More detailed project-level discussions are provided for existing biological resources within the Northwest Spur Pipeline study area.

RWMP Components

Vegetation and Wildlife

The CLWA service area generally coincides with the Santa Clarita planning area and encompasses the Santa Clara River Valley, the eastern extension of the Santa Susana Mountains, the westernmost reaches of the San Gabriel Mountains, and the southern slopes of the Sierra Pelona. The principal natural features of the Santa Clarita Valley include the Santa Clara River, Castaic Valley, San Francisquito Canyon, Bouquet Canyon, Placerita Canyon, and Hasley Canyon. The Santa Clara River flows west from the San Gabriel Mountains to the Santa Susana Mountains and on through Ventura County to the ocean. This complex topography provides a natural setting that supports a diverse assemblage of biotic communities.

Much of the existing development is concentrated along the Santa Clara River and Interstate-5 (I-5). The RWMP components will be largely located in these urban/developed areas. Although substantial portions of the Santa Clarita planning area have been developed, a large portion of the lands within the CLWA service area still supports ecologically important vegetation and wildlife habitats. Major vegetation/habitat types include oak woodlands (distinct stands of valley oak, coast live oak, and interior live oak), chaparral, southern California walnut woodlands, coastal and/or Riversidean (Venturan) sage scrub, non-native grassland, riparian scrub (characterized by mulefat and/or shrubby willows), and riparian woodlands (characterized by large willow and cottonwood trees, including densely forested areas). Other vegetation types within the region include: bigcone spruce-canyon oak forest, coast live oak woodland, coast live oak riparian forest, native grasslands, alluvial fan sage scrub, southern cottonwood-willow riparian woodland and forest, southern sycamore-alder woodland, southern willow scrub, vernal pool, pinyon-juniper woodland, juniper woodland, freshwater marsh, open water, and disturbed.

Northwest Spur Pipeline

Vegetation Types

Vegetation types and their extent within the Northwest Spur Pipeline study area were determined to facilitate a more detailed level impact analysis for this component of the RWMP. As described in Section 2.0, Project Description, two of the sites for the booster pump stations associated with the Northwest Spur Pipeline have been previously graded in association with an adjacent commercial development and one site was graded and has subsequently been revegetated. Construction of the pipeline would result in an impact corridor measuring approximately 20 feet wide along the entire 2.35-mile alignment. The roughly 5.69-acre disturbance corridor would be located entirely within the roadway right-of-way (ROW), which is mostly paved. This impact corridor could be extended to approximately 22 feet wide if the CLWA and the Valencia Water Company (VWC) would jointly use the pipeline. As a result, vegetation is extremely limited within this study area. Five vegetation types occur in the study area: ruderal, buckwheat scrub, ornamental, disturbed, developed, and wash. A description of each of the vegetation types is found below.

Ruderal

Ruderal vegetation is found along much of the alignment on unpaved roadway shoulders. The dominant species of this vegetation type include forbs and a few non-native grasses. The dominant species present in this area include, horsetail (*Conyza canadensis*), jimson weed (*Datura wrightii*), tocalote, telegraph weed (*Heterotheca grandiflora*), Russian thistle (*Salsola tragus*), dove weed (*Eremocarpus setigerus*), wild oats (*Avena* spp.), black mustard (*Brassica nigra*), and ripgut brome (*Bromus diandrus*). This vegetation community is highly disturbed and appears to be mowed routinely. The exact quantity of ruderal vegetation present within the ROW is unknown due to the difficulty in determining the ROW boundaries in the field; however, it is expected to be less than 0.30 acre in total.

Buckwheat Scrub

The buckwheat scrub vegetation type occurs at the location of the proposed pumping station immediately north of the intersection of Commerce Center Drive and Henry Mayo Drive. The area consists of a narrow mesa surrounded by manufactured slopes rising up from the roadway shoulders on three sides. The areas was likely graded and re-vegetated as part of adjacent roadway improvements in the recent past. Consequently, the mesa top consists of a near monoculture of California buckwheat (*Eriogonum fasciculatum*) and with a few scattered California sage brush (*Artemisia californica*) individuals and various non-native grasses. At the time of the survey in October 2006, the buckwheat scrub vegetation had been recently mowed. Although the plants have been reduced to less than a couple inches in height, the primary stem and many branches remain intact on most. Therefore, this community is likely to reestablish itself over a couple growing seasons. Approximately 0.2 acre of buckwheat scrub occurs on the project site.

Ornamental

Ornamental vegetation occurs along several portions of the proposed alignment. This vegetation type consists of non-native ornamental trees and shrubs including gum trees (*Eucalyptus* spp.), Peruvian pepper tree (*Schinus molle*), ornamental pine (*Pinus* spp.), olive trees (*Olivae* sp.), oleander (*Nerium oleander*), black locust (*Robinia pseudoacacia*), gingko (*Gingko biloba*), and sweet gum (*Liquidambar styraciflua*). The exact quantity of ornamental vegatation present within the ROW is unknown due to the difficulty in determining the ROW boundaries in the field; however, it is expected to be less than 0.30 acre in total.

Disturbed

The disturbed vegetation type occurs along most of the alignment along the roadway shoulders and within the 0.11-mile segment at the southern end where the alignment leaves the roadway and traverses an unpaved area of the Valencia Water Reclamation Plant (WRP). These areas consist of unpaved areas that are disturbed at such a frequency that vegetation is unable to persist. As a result, these areas are essentially devoid of vegetation. This vegetation type accounts for 0.26 acre at the southern end, 0.2 acre at the location of the middle pump station, and an additional 0.50 acre (roughly) elsewhere for a total of approximately 0.96 acre.

Developed

Developed areas represent the majority of the ROW along the proposed alignment. These areas consist of all paved areas including the road and paved shoulder, gutters, curbs, and sidewalks. Developed areas are entirely devoid of vegetation. This type represents approximately 4.23 acres of the Northwest Spur Pipeline study area.

Wash

The wash vegetation type is associated with the segment of the alignment that crosses Castaic Creek. This vegetation type occurs directly under and immediately adjacent to the bridge to which the pipeline would be attached, and is composed of sand with a few boulders but is essentially devoid of vegetation. An active channel of varying widths flows through this area during the rainy months of the year. Approximately 0.1 acre of wash is present in the Northwest Spur Pipeline study area.

Wildlife

Wildlife species observed or expected to occur within the Northwest Spur Pipeline study area are extremely limited. Due to the minimal amount of vegetation and the level of disturbance within the ROW along the alignment, only the most ubiquitous and common species are expected to occur. Although buckwheat scrub is present, it is mowed and surrounded by heavily traveled roadways such that only limited wildlife utilization is possible.

Where the alignment crosses Castaic Creek, a small amount of undisturbed wash habitat occurs. Surface flow through this segment of the creek is present throughout the rainy months of the year. However, vegetation is absent from the wash within the impact area, and wildlife utilization is expected to be generally low. A few amphibians may use the area due to its proximity to an active channel (seasonally) and its proximity to riparian habitat upstream. In addition, the active stream channel is expected to support common fish species when surface flow is present.

Reptilian diversity within the Northwest Spur Pipeline study area is expected to be very low due to the limited amount of suitable habitat and the disturbed nature of the study area. A few common species, such as the side-blotched lizard (*Uta stansburiana*) and the western fence lizard (*Sceloporus occidentalis*), are expected to occur in low numbers. Where the alignment crosses Castaic Creek, a slightly greater abundance of reptiles is expected.

Due to the high mobility of birds, a number of species that occur within surrounding areas are expected to occasionally occur within the study area, although nesting and foraging would be very limited. Common species observed included the house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), and lesser goldfinch (*Carduelis psaltria*). Other species expected to occur include the European starling (*Sturnus vulgaris*), common raven (*Corvus corax*), house sparrow (*Passer domesticus*), and the western scrub-jay (*Aphelocoma californica*).

Similar to other wildlife groups, a very limited diversity of rodents and other small mammals are expected to occur within the study area. A few species likely to occur in small numbers include the deer mouse (*Peromyscus maniculatus*), woodrat (*Neotoma* sp.), and California ground squirrel (*Spermophilus beecheyi*). Bats are not expected to occur due to the lack of suitable foraging or roosting sites and the level of disturbance within the study area. A few carnivores are expected to occasionally traverse the site such as the coyote (*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and the Virginia opossum (*Diclelphis virginiana*). One common herbivore, the desert cottontail (*Sylvilagus audubonii*), is expected to occur.

Wildlife Movement

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information. Corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move in their home ranges in search of food, water, mates, and other necessary resources.

RWMP Components

The proposed area for the remaining RWMP components encompasses the single most direct wildlife movement corridor and habitat linkage zone for wildlife movement between the Mojave Desert and higher elevations of the San Gabriel Mountains, the southern Sierran interchange zone, the Santa Susana Mountains, coast ranges, and Oxnard coastal plain. The Santa Clara River's riparian corridor extends from its watershed and tributary basins westward along the northern foothills of the San Gabriel Mountains, through the Santa Clarita Valley, where it is joined by the San Francisquito and Castaic Creek drainages, and then into Ventura County. The functional limits of the corridor extend on through Ventura County, pick up several other tributaries, and reach the Pacific Ocean at Ventura.

The various tributary canyons along the River such as Vasquez Canyon and the Elsmere, Whitney, Placerita, Bear, and Upper Sand Canyon drainages extend the corridor and habitat linkage values from the river basin into the western terminus of the San Gabriel range. The Santa Clara River and tributary systems offer relatively free movement pathways and habitat linkages, with few barriers to terrestrial travel, accessible surface water or shallow groundwater, and/or riparian habitat cover. Because the Santa Clara River basin system is unchannelized for almost all of its length and has natural bottom substrates for the entire length of all tributaries, it provides easy entry and exit for wildlife moving in and between the different habitat zones.

Northwest Spur Pipeline

The location of the Northwest Spur Pipeline study area is within the vicinity of notable natural wildlife corridors, Castaic Creek, and the Santa Clara River. Construction of a portion of the alignment would occur within Castaic Creek temporarily while construction of the remaining portion would occur in close proximity to the Santa Clara River. Both these features provide a habitat linkage through the mostly developed Santa Clarita area and are expected to facilitate wildlife movement on both local and regional scales. Wildlife utilizing these linkages may move between large open spaces in the region with ample cover and other sustaining resources. These linkages are essential in sustaining healthy populations of many wildlife species in the region. The booster pump station sites do not provide for wildlife corridor linkages because they are adjacent to the service road of The Old Road and/or Henry Mayo Drive, which is a barrier to wildlife movement. Additionally, the project sites are small (approximately 1,000 square feet) and will be surrounded by future commercial development and/or roadway.

Special Status Biological Resources

The following section addresses special status biological resources observed, reported, or have the potential to occur in the project site. These resources include plant and wildlife species that have been afforded special status and/or recognition by federal and state resource agencies, as well as private conservation organizations. In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size, geographic range, and/or distribution resulting in most cases from habitat loss. Table 3.4-1and Table 3.4-2 provide a summary of each special status plant and wildlife species (respectively) known to occur in the project region including information on the status, likelihood for occurrence, and definitions for the various status designations. In addition, special status biological resources include vegetation types and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, state, and local government conservation programs.

TABLE 3.4-1
SPECIAL STATUS PLANT SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State CNPS	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Occurrence
State or Federally Listed Species			
Astragalus brauntonii Braunton's milk-vetch	FE/-/1B	Recently burned chaparral vegetation, limestone soils; known from Simi Hills, Santa Monica Mountains.	Not expected to occur due to lack of suitable habitat.
Berberis nevinii Nevin's barberry	FE/CE/1B	Coastal scrub and chaparral along sandy washes; scattered occurrences in Transverse Ranges.	Not expected to occur due to lack of suitable habitat.
Brodiaea filifolia Thread-leaved brodiaea	FT/CE/1B	Vernal pools, recently rediscovered in Los Angeles County (1996).	Not expected to occur due to lack of suitable habitat.
Chorizanthe parryi var. *Fernandina* San Fernando Valley spineflower	FC/CE[a]/1B	Sandy/gravelly washes in coastal scrub; historically in vicinity of Castaic, Newhall; recently discovered in the Simi Hills.	Not expected to occur due to lack of suitable habitat.
Dodecahema leptoceras Slender-horned spineflower	FE/CE/1B	Restricted to alluvial fan sage scrub; known from Santa Clara River tributaries.	Not expected to occur due to lack of suitable habitat.
Navarretia fossalis Spreading navarretia	FT/–/1B	Chenopod scrub, shallow fresh water marshes, and vernal pools; reported from Cruzan Mesa.	Not expected to occur due to lack of suitable habitat.
Orcuttia californica California Orcutt grass	FE/CE/1B	Vernal pools; historic and recent records from Cruzan Mesa.	Not expected to occur due to lack of suitable habitat.
Federal Candidate and CNPS Lists 1 and 2 Species that Could Be Eligible for Listing			
Calochortus clavatus var. *gracilis* Slender mariposa lily	–/–/1B	Foothill canyons in chaparral; occurs in San Gabriel Mountains.	Not expected to occur due to lack of suitable habitat.
Calochortus plummerae Plummer's mariposa lily	–/–/1B	Chaparral, other habitats, usually on granitic soils; Transverse and Peninsular Ranges.	Not expected to occur due to lack of suitable habitat.
Deinandra (= Hemizonia) minthornii Santa Susana tarplant	–/CR/1B	Rocky areas in chaparral, coastal scrub; common in Santa Susana Pass.	Not expected to occur due to lack of suitable habitat.
Dudleya multicaulis Many-stemmed dudleya	–/–/1B	Grassland and scrub habitats, associated with rock outcrops on clay soils; known from east of Simi Valley.	Not expected to occur due to lack of suitable habitat.

TABLE 3.4-1 (Continued)
SPECIAL STATUS PLANT SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State CNPS	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Occurrence
Galium grande San Gabriel bedstraw	–/–/1B	Lower montane coniferous forest, south slope of San Gabriel Mountains.	Not expected to occur due to lack of suitable habitat.
Opuntia basilaris var. *brachyclada* Short-joint beavertail	–/–/1B	Dry slopes in chaparral (at higher elevations than on project site); known from Santa Susana Pass.	Not expected to occur due to lack of suitable habitat.
Plants of Limited Distribution			
Acanthomintha obovata ssp. *Cordata* Heart-leaved thorn-mint	–/–/4	Woodland, chaparral, and grassland habitats; known from areas to west in Ventura County.	Not expected to occur due to lack of suitable habitat.
Androsace elongata ssp. *Acuta* California androsace	–/–/4	Scrub and woodland habitats; widely distributed but rare; not found recently in Los Angeles County.	Not expected to occur due to lack of suitable habitat.
Baccharis plummerae ssp. *Plummerae* Plummer's baccharis	–/–/4	Rocky slopes, scrub and woodland habitats; primarily coastal, known from areas to west.	Not expected to occur due to lack of suitable habitat.
Calandrinia breweri Brewer's calandrinia	–/–/4	Disturbed or burned sites in coastal scrub and chaparral; widespread though uncommon.	Not expected to occur due to lack of suitable habitat.
Calystegia peirsonii Peirson's morning glory	–/–/4	Hillsides, rocky slopes in chaparral, coastal scrub; known from Newhall Ranch, Marple, Mint, and San Francisquito Canyons.	Not expected to occur due to lack of suitable habitat.
Convolvulus simulans Small-flowered morning glory	–/–/4	Wet clay and serpentine ridges; scattered at low to mid-elevations in coastal Southern California.	Not expected to occur due to lack of suitable habitat.
Galium cliftonsmithii Santa Barbara bedstraw	–/–/4	Partially shaded canyon habitats; mostly coastal, known from West Transverse Ranges.	Not expected to occur due to lack of suitable habitat.
Harpagonella palmeri Palmer's grapplinghook	–/–/4	On clay soils in grassland and scrub habitats; historically found near Saugus but unconfirmed in Los Angeles County in recent years.	Not expected to occur due to lack of suitable habitat.
Juncus acutus ssp. *Leopoldii* Southwestern spiny rush	–/–/4	Marshes, wet meadows, often in saline habitats; widespread in coastal southern California and deserts.	Not expected to occur due to lack of suitable habitat.
Lilium humboldtii ssp. *Ocellatum* Ocellated Humbolt lily	–/–/4	Canyons, in oak woodland; widely distributed though uncommon in southern California.	Not expected to occur due to lack of suitable habitat.
Microseris douglasii ssp. *Platycarpha* Small-flowered microseris	–/–/4	Inland clay soils, often near vernal pools or serpentine; widely distributed though uncommon in coastal central and southern California.	Not expected to occur due to lack of suitable habitat.

TABLE 3.4-1 (Continued)
SPECIAL STATUS PLANT SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State CNPS	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Occurrence
Mucronea californica California spineflower	–/–/4	Coastal scrub, chaparral on sandy soils; widespread though uncommon in coastal central and southern California.	Not expected to occur due to lack of suitable habitat.
Perideridia pringlei Adobe yampah	–/–/4	Grassland, scrub, woodland habitats, on serpentine; coastal central California to West Transverse Ranges.	Not expected to occur due to lack of suitable habitat.

Notes: [a] This species was listed as endangered under the California Endangered Species Act in August of 2001.

Source: CDFG (2002b), CNPS (2001), Aspen Environmental Group (1996), Hickman (1993), and PCR (2000)

Status: Federal: FE = Endangered. FT = Threatened. FC = Candidate.
State: CE = Listed as Endangered. CR = Listed as Rare. 4 = List 4 Watch list, plants of limited distribution
CNPS: 1B = List 1B - Plants rare and endangered in California and elsewhere

TABLE 3.4-2
SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Study Area Occurrence
State or Federally Listed or Proposed Species			
Bufo californicus Arroyo toad	FE/SSC	Sandy stream terraces with closed canopies and grassy groundcover next to perennial stream. Primarily in Ventura and northern Los Angeles counties; Santa Clara River.	May occur within potentially suitable habitat in Castaic Creek.
Buteo swainsoni Swainson's hawk	SOC/CT	Forages over grasslands, savannas, and open areas. Nests in scattered trees near open areas. Nesting rare in southern California. Possible as brief migrant, not likely to breed.	Not expected to occur due to lack of suitable habitat.
Catostomus santaanae Santa Ana sucker	FT/SSC	Found in flowing streams with coarse substrate and little modification or pollution. Present in Santa Clara River but may have hybridized with the introduced Owens sucker.	May occur within potentially suitable habitat in Castaic Creek.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FC/CE	Riverine Woodlands, Thickets, and Farms. Known to occur in the region.	Not expected to occur due to lack of suitable habitat.
Empidonax trailii extimus Southwestern willow flycatcher	FC/CE	Dense willow thickets near slow-moving streams. Nests along Santa Clara River and other large streams.	Not expected to occur due to lack of suitable habitat.
Falco peregrinus anatum American peregrine falcon	DM/CE & FP	Forages over open areas, especially over water. Nests on cliffs with small caves.	Not expected to occur due to lack of suitable habitat.
Gasterosteus aculeatus williamsoni Unarmored threespine stickleback	FE/CE & FP	Found in streams and pools with flowing water and emergent vegetation. Inhabits Santa Clara River.	May occur within potentially suitable habitat in Castaic Creek.
Gymnogyps californianus California condor	FE/CE & FP	Open savannahs and grassland. Nests on cliffs with small caves. Possibly forages over open areas.	Not expected to occur due to lack of suitable habitat.
Polioptila californica californica Coastal California gnatcatcher	FT/SSC	Inhabits coastal sage scrub. Scattered observations throughout the area.	Unlikely to occur at present due to lack of undisturbed suitable habitat; limited potential to occur in buckwheat scrub re-growth in near future..
Rana aurora draytonii California red-legged frog	FT/SSC	Inhabits unpolluted freshwater streams and marshes with emergent aquatic vegetation such as tules, bulrushes, or cattails. Known from Piru Creek, San Francisquito Creek; possible elsewhere.	Not expected to occur due to lack of suitable habitat.
Vireo bellii pusillus	FE/CE	Extensive, dense willow riparian	Not expected to occur due to lack of

TABLE 3.4-2 (Continued)
SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Study Area Occurrence
Least Bell's vireo		thicket. Nests along Santa Clara River and other large streams.	suitable habitat.
State Species of Special Concern			
Accipiter cooperii Cooper's hawk	–/SSC	Heavily wooded, semi-open areas, breeds in riparian and oak woodlands. Known to occur throughout the region.	Not expected to occur due to lack of suitable habitat.
Accipiter striatus Sharp-shinned hawk	–/SSC	Uncommon migrant and winter visitor in heavily wooded semi-open areas. Mostly likely during winter, unlikely breeder.	Not expected to occur due to lack of suitable habitat.
Agelaius tricolor Tricolored blackbird	–/SSC	Freshwater marshes and riparian scrub. Few occurrences in region.	Not expected to occur due to lack of suitable habitat.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	–/SSC	Generally, steep, rocky areas within coastal sage scrub and chaparral, often with scattered bunches of grass; prefers relatively recently burned areas. Observed on Newhall Ranch; locally common.	Not expected to occur due to lack of suitable habitat.
Amphispiza belli Bell's sparrow	–/SSC	Dense, dry chamise chaparral and coastal slopes of coastal sage scrub. Locally common.	Not expected to occur due to lack of suitable habitat.
Anniella pulchra pulchra Silvery legless lizard	–/SSC	Several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub habitats; loose sandy soil. Known to occur throughout the region.	Not expected to occur due to lack of suitable habitat.
Antrozous pallidus Pallid bat	–/SSC	Forages in open areas; roosts in rock crevices and caves.	Not expected to occur due to lack of suitable habitat.
Aquila chrysaetos Golden eagle	–/SSC & FP	Mountains, deserts, and open country. Suitable nest habitat is primarily cliffs and rocky ledges, sometimes trees, and occasionally ground and man-made structures. Occasionally observed in the region.	Not expected to occur due to lack of suitable habitat.
Asio otus Long-eared owl	–/SSC	Riparian and live oak woodlands. Known to occur in region.	Not expected to occur due to lack of suitable habitat.

TABLE 3.4-2 (Continued)
SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Study Area Occurrence
Athene cunicularia hypugea Burrowing owl	–/SSC	Dry grasslands, desert habitats, open pinyon-juniper, ponderosa pine woodlands below 5,300 feet elevation; berms, ditches, and grasslands adjacent to rivers, agricultural, and scrub areas. Occasional visitor.	Not expected to occur due to lack of suitable habitat.
Buteo regalis Ferruginous hawk	–/SSC	Rivers, lakes, and coasts; open tracts of sparse shrubs and grasslands, and agricultural areas during winter. Rare migrant through region.	Not expected to occur due to lack of suitable habitat.
Circus cyaneus Northern harrier	–/SSC	Forages in marshes and grassy meadows; uncommon; occasionally forages over open desert and brushlands.	Not expected to occur due to lack of suitable habitat.
Dendroica petechia brewsteri Yellow warbler	–/SSC	Inhabits willow-riparian habitats. Numerous records from region.	Not expected to occur due to lack of suitable habitat.
Elanus leucurus White-tailed kite	–/FP	Forages in meadows and open areas. Nests in riparian woodland. Nesting in woodlands along Santa Clara River, Live Oak Springs and Placerita Canyon; near Pico Canyon; common locally.	Not expected to occur due to lack of suitable habitat.
Eremophila alpestris actia California horned lark	–/SSC	Open grasslands, fields, and agricultural areas. Known to occur throughout the region.	Not expected to occur due to lack of suitable habitat.
Euderma maculatum Spotted bat	–/SSC	Deserts, scrublands, chaparral, and coniferous woodlands. At least one record from the region.	Not expected to occur due to lack of suitable habitat.
Eumops perotis californicus California mastiff-bat	–/SSC	Forages over chaparral and grasslands; roosts in rock crevices and old buildings.	Not expected to occur due to lack of suitable habitat.
Falco mexicanus Prairie falcon	–/SSC	Forages in dry open habitat. Nests on cliffs with potholes. Known to breed in area.	Not expected to occur due to lack of suitable habitat.
Felis concolor Mountain lion	–/SSC	Rare residents of rugged terrain with dense cover, forages over large area. Tracks observed in Newhall Ranch area and presumed to occasionally forage on site.	Not expected to occur due to lack of suitable habitat.
Gila orcutti Arroyo chub	–/SSC	Adapted to the warm fluctuating streams of the Los Angeles Plain. Prefers the slowest moving sections of stream where bottom is sand or mud. Inhabits Santa Clara River and Castaic Creek.	May occur within potentially suitable habitat in Castaic Creek.
Icteria virens Yellow-breasted chat	–/SSC	Prefer dense willow-riparian habitats. At least one record from San Francisquito Creek.	Not expected to occur due to lack of suitable habitat.

TABLE 3.4-2 (Continued)
SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Study Area Occurrence
Ixobrychus exilis hesperis Western least bittern	–/SSC	Emergent wetlands of cattails and tules. Records from the Santa Clara River.	Not expected to occur due to lack of suitable habitat.
Lanius ludovicianus Loggerhead shrike	–/SSC	Open grassland, savannas, and chaparral. Fairly common.	Not expected to occur due to lack of suitable habitat.
Lepus californicus bennettii San Diego black-tailed jackrabbit	–/SSC	Open brushlands and scrub habitats between sea level and 4,000 feet elevation. Known to occur in region.	May occur within potentially suitable habitat in Castaic Creek.
Macrotus californicus California leaf-nosed bat	–/SSC	Desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis. Roosts in tunnels, caves and possible buildings and bridges. Becoming rare locally.	Not expected to occur due to lack of suitable habitat.
Neotoma lepida intermedia San Diego desert woodrat	–/SSC	Dense riparian and chaparral. Observed on Newhall Ranch and likely elsewhere.	May occur within potentially suitable habitat in Castaic Creek.
Phrynosoma coronatum Coast horned lizard	–/SSC	Scrubland, grassland, coniferous forest, broad-leaf woodlands; sandy loose soils in chaparral scrub and washes. Known to occur throughout the region.	May occur within potentially suitable habitat in Castaic Creek.
Onychomys torridus Ramona Southern grasshopper mouse	–/SSC	Grasslands, desert areas, especially scrub with friable soils. Recorded in Soledad Canyon.	Not expected to occur due to lack of suitable habitat.
Plecotus townsendii pallescens Pale Townsend's big-eared bat	–/SSC	Forages in forests, woodlands, grasslands, and open areas; roosts in caves and man-made structures.	Not expected to occur due to lack of suitable habitat.
Piranga rubra Summer tanager	–/SSC	Cottonwood-willow woodland and riparian scrub. Record from Santa Clara River near Lang.	Not expected to occur due to lack of suitable habitat.
Salvadora hexalepis virgultea Coast patch-nosed snake	–/SSC	Found in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas. Barren creosote bush desert flats. Sagebrush semi-deserts; sea level to 7,000 ft. Known to occur throughout the region.	Not expected to occur due to lack of suitable habitat.
Scaphiopus hammondii Western spadefoot	–/SSC	Lowland washes, floodplains, temporary ponds and vernal pools. Observed in Potrero Canyon Pond (Aspen 1996) and likely elsewhere.	May occur within potentially suitable habitat in Castaic Creek.
Strix occidentalis occidentalis California spotted owl	–/SSC	Oak and oak-conifer habitats. Reported within the region.	Not expected to occur due to lack of suitable habitat.
Taxidea taxus American badger	–/SSC	Open areas with sandy soils.	Not expected to occur due to lack of suitable habitat.

TABLE 3.4-2 (Continued)
SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE CLWA SERVICE AREA

Scientific Name/Common Name	Regulatory Status Federal/State	Habitat and CLWA Service Area Occurrence	Northwest Spur Pipeline Study Area Occurrence
Thamnophis hammondii Two-striped garter snake	–/SSC	Riparian and freshwater marshes with perennial water. Several records within the region.	Not expected to occur due to lack of suitable habitat.

Source: Aspen Environmental Group (1996), CDFG (2002a), and PCR (2000)

Status: Federal: FE = Endangered. FT = Threatened. FC = Federal Candidate.
DM = Delisted Taxon, Recovered, Being Monitored First Five Years. SOC = Species of Concern.
State: CE = Endangered. CT = Threatened. FP = Fully Protected Species.
SSC = Species of Special Concern.

Definitions of Special Status Biological Resources

A federally listed Endangered species is one facing extinction throughout all, or a significant portion of, its geographic range. A federally listed Threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally listed Threatened or Endangered species on a project site imposes constraints on development, particularly if development would result in "take" of the species or its habitat. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm, in this sense, can include any disturbance to habitats used by the species during any portion of its life history.

Proposed species are those officially proposed by the USFWS for addition to the federal Threatened and Endangered species lists. Because proposed species may soon be listed as Threatened or Endangered, these species could become listed prior to or during implementation of a proposed development project.

The State of California considers an Endangered species as one whose prospects of survival and reproduction are in immediate jeopardy; a Threatened species as one present in such small numbers throughout its range that it is likely to become an Endangered species in the near future in the absence of special protection or management; and a Rare species as one present in such small numbers throughout its range that it may become Endangered if its present environment worsens. The Rare species designation applies only to California native plants. State-listed Threatened and Endangered species are fully protected against take unless an incidental take permit is obtained from CDFG.

A California Species of Special Concern is an informal designation which the CDFG uses for some declining wildlife species that are not State candidates. This designation does not provide legal protection but signifies that these species are recognized as special status by the CDFG.

Species that are California Fully Protected and Protected include those protected by special legislation for various reasons, such as the mountain lion and white-tailed kite. Fully Protected species may not be taken or possessed at any time. California Protected species include those species that may not be taken or possessed at any time except under a special permit from CDFG issued pursuant to Sections 650 and 670.7 of the California Code of Regulations or Section 2081 of the Fish and Game Code.

A species that is considered a Special Animal is one that is tracked by the CNDDB. Species of Local Concern are those that have no official status with the resource agencies, but are being watched because either there is a unique population in the region or the species is declining in the region.

The CNPS is a resource conservation organization that has developed an inventory of California's special status plant species. This inventory is the summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory is comprised of four lists. CNPS presumes that List 1A plant species are extinct in California because they have not been seen in the wild for many years. CNPS considers List 1B plants as rare, threatened, or endangered throughout their range. List 2 plant species are considered rare, threatened, or endangered in California but are more common in other states. Plant species for which CNPS needs additional information are included on List 3. List 4 plant species are those of limited distribution in California whose susceptibility to threat appears low at this time.

Special Status Vegetation Types

In addition to providing an inventory of special status plant and wildlife species, the CNDDB also provides an inventory of vegetation types that are considered special status by the state and federal resource agencies, academic institutions, and various conservation groups (such as the CNPS). All wetland and riparian vegetation types are also considered special status because the *California Fish and Game Code*, Section 1600 protects and conserves fish and wildlife resources by regulating substantial changes of the bed, channel, or bank of any river, stream, or lake.

Although oak trees (*Quercus* spp.) that are eight inches or more in diameter at breast height (DBH) are protected by the County of Los Angeles Oak Tree Ordinance (CLATO), the CLWA is not regulated by local agencies such as the County and would not be required to adhere to the conditions of this ordinance. Special status vegetation types within the overall RWMP study area and the Northwest Spur Pipeline study area are listed below. All the vegetation types listed below are considered a high priority for preservation.

RWMP Components

Special status vegetation types within the RWMP study area include: native grassland, coast live oak riparian forest, southern willow scrub, bigcone spruce-canyon oak forest, southern sycamore-alder woodland, southern cottonwood-willow riparian woodland and forest, freshwater marsh, alluvial fan sage scrub, and vernal pool. The vegetation types occur throughout many portions of the RWMP study area. Their proximity to proposed RWMP components has not been determined because RWMP facility locations are still conceptual and have not been finalized.

Northwest Spur Pipeline

Two vegetation type present within the Northwest Spur Pipeline study area are considered special status. Within the segment of the alignment that crosses Castaic Creek, a small amount of wash vegetation type would be temporarily impacted. The buckwheat scrub, which is currently mowed, would be avoided. Other riparian vegetation types that are special status do occur in adjacent areas of the Santa Clara River and Castaic Creek. These vegetation types, however, are not considered here because there would be no impacts due to the proposed pipeline construction. The booster pump station site is currently graded and does not support special status vegetation types or habitats.

Special Status Plants

Twenty-six (26) special status plant species are known to occur in the CLWA service area. These plants and their potential to occur within the area of the remaining RWMP components as well as the Northwest Spur Pipeline study area are listed in Table 3.4-1. Location information was gathered from previously described resources, such as the CNDDB, as well as the EIRs for the Pacific Pipeline Project and the Newhall Ranch Specific Plan, and the Los Angeles County Significant Ecological Area (SEA) Update Study, all of which provide information on the regional and local occurrence of sensitive species in the area.

Special Status Wildlife

A total of forty six (46) special status wildlife species that are known to occur or that potentially occur in the CLWA service area and the Northwest Spur Pipeline study area are listed in Table 3.4-2. The final column indicates the potential for these species to occur within the Northwest Spur Pipeline study area. Location information was gathered from previously described resources, such as the CNDDB, as well as the EIRs for the Pacific Pipeline Project and the Newhall Ranch Specific Plan, and the Los Angeles County SEA Update Study, all of which provide information on the regional and local occurrence of sensitive species in the area.

Jurisdictional Resources

Wetlands, permanent and intermittent drainages, creeks, and streams are generally subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under Section 404 of the Federal Clean Water Act. By USACE definition, all aquatic or riverine habitats between the "ordinary high water mark" of rivers, creeks, and streams, are considered "waters of the United States" and may fall under USACE jurisdiction. If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. Wetlands are defined by USACE as "those areas that are inundated or saturated by surface or groundwater at a frequency or duration to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions". The presence and extent of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site. The USACE definition of wetlands requires that all three wetland identification parameters be met.

Streambeds within the project site are subject to regulation by the CDFG under Section 1602 of the *California Fish and Game Code.* A stream is defined under these regulations as a body of water that flows at least periodically or intermittently through a bed or channel that has banks and that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFG jurisdiction typically extends to the edge of the riparian vegetation canopy.

RWMP Components

Both USACE and CDFG jurisdictional waters and streambeds and their associated habitat occur throughout the RWMP study area within the Santa Clara River and the myriad of its major and minor tributaries. Riparian habitats, especially riparian scrub and forest habitats along the Santa Clara River, provide nesting and foraging habitat for many sensitive bird species, including the endangered Least Bell's vireo, the willow flycatcher, the yellow-breasted chat, and the yellow warbler. Riparian habitats along the Santa Clara River and in Soledad and San Francisquito canyons are habitat areas primarily for the endangered unarmored threespine stickleback and arroyo toad. Exact locations and acreage of potential impacts would be determined in future, site-specific jurisdictional delineation studies where warranted.

Northwest Spur Pipeline

No USACE or CDFG jurisdictional waters and streambeds and associated habitat occur within the Northwest Spur Pipeline study area, and general surveys within the study area found no evidence of any features that could potentially be jurisdictional, with the exception of the portion of the pipeline that would cross over the Castaic Creek. The booster pump station site does not contain any USACE or CDFG jurisdictional waters. Although a jurisdictional delineation of the area has not been conducted, most of the area spanned by the bridge would likely qualify as both USACE and CDFG jurisdictional resources. During construction activities for the Northwest Spur Pipeline, construction equipment would need to be located within the creek in order to attach the pipeline to the bottom of the bridge. However, once construction is complete, the pipeline would be entirely suspended from the bridge and no permanent impacts to jurisdictional resources would result.

Other Sensitive Biological Resources

RWMP Components

Within the RWMP study area, no regional Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) have been adopted. However, some unincorporated portions of the service area are subject to Los Angeles County Significant Ecological Area (SEA) zoning overlays, which indicate the presence of sensitive resources and require County environmental review as a responsible agency.

Los Angeles County has designated five locations in the Santa Clarita Valley as SEAs. SEAs were established in 1976 by Los Angeles County to designate areas with sensitive environmental conditions and/or resources to preserve biological diversity. The County recently re-evaluated the biological conditions of these SEAs in 2000. The update expanded the objective of the original SEAs to include the future sustainability of biological diversity through the application of current practices in conservation planning, primarily by consolidation into larger interconnected SEAs. The CLWA has not yet adopted the 2000 SEA update study. SEA boundaries are general in nature, and broadly outline the biological resources of concern. The *Los Angeles County General Plan* allows development in SEAs as long as development is "highly compatible" with the identified resources. The CLWA is not subject to the ordinances or regulations of local governments; therefore, CLWA projects are not required to comply with the County's requirements for development within an SEA. SEA's that could be impacted by the implementation of the RWMP are discussed in detail below. Other SEAs in the Santa Clarita Valley area that would not be impacted by the RWMP include the Santa Susana Mountains SEA, the Lyon Canyon SEA, and the Valley Oaks Savannah SEA.

Santa Clara River SEA

This is the largest SEA in the Santa Clarita Valley, extending through the City of Santa Clarita and along the entire Santa Clara River watershed. It supports a variety of natural habitats including freshwater marsh, coastal sage scrub, oak woodland, and riparian woodlands. A great portion of the river channel, through the planning area, remains dry for most of the year. In scattered areas, however, the water table under the streambed is high, and lush riparian vegetation provides refuge for birds and wildlife. For example, the red-shouldered hawk (*Buteo lineatus*) is closely tied to this community and is becoming increasingly uncommon in southern California due to habitat destruction. This assemblage of vegetation (described as a "broad wash" association in the SEA descriptions) is unlike that found in steeper mountain canyons and is rare in the Los Angeles Basin. It is the only major river drainage from the San Gabriel Mountains that remains unchannelized for most of its length.

This area was designated as an SEA primarily because of the threat of loss of suitable habitat for the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), a federally and state-listed endangered species. This species formerly occurred in the Los Angeles, San Gabriel, and Santa Ana rivers but is now restricted to San Francisquito Canyon, three areas in the Santa Clara River, and San Antonio Creek on Vandenberg Air Force Base. The stickleback requires clean, free-flowing perennial streams and ponds that are surrounded by natural vegetation. The adjacent floodplain of the Santa Clara River is included in this SEA in order to preserve this habitat. The natural vegetation along the intermittent portion of the stream slows heavy runoff during rainy seasons and thus decreases destruction and siltation of stickleback habitats downstream.

San Francisquito Canyon SEA

San Francisquito Canyon SEA contains an intermittent stream that drains the hillsides north of the planning area in the Angeles National Forest. Riparian vegetation is located in the canyon bottom along the stream channel, while grasslands and chaparral are found on the walls. This SEA was designated because it supports populations of the unarmored threespine stickleback. The San Francisquito Canyon SEA is currently maintained to prevent downstream siltation of the Santa Clara River and provides constant water flows to preserve designated critical habitat for the unarmored threespine stickleback. The San Francisquito floodplain is included in the SEA in order to preserve downstream stickleback habitats.

Other Areas

Other important habitats and biological resource areas within the CLWA service area are listed below:

- Land within the Angeles and Los Padres National Forests, including Elsmere Canyon, and wildlife corridors between the Santa Susana Mountains and the San Gabriel Mountains.

- Canyon areas, including Whitney Canyon, Elsmere Canyon, Wiley Canyon, East Canyon, Towsley Canyon, Rice Canyon, San Francisquito Canyon, and other canyons that provide important habitat (water, food, and shelter) and biological resources, and add to the viewshed of the Santa Clarita Valley.

- Open water habitat provided by Castaic Lake, Castaic Lagoon, and isolated locations along the Santa Clara River.

- Habitat for federally listed endangered, threatened, or rare plant and wildlife species found in chaparral and coastal sage scrub vegetation.

- State-listed endangered plant and wildlife species found in chaparral and coastal sage scrub habitat.

- Oak trees that are protected by ordinances within the City of Santa Clarita and elsewhere in Los Angeles County.

- Santa Clara River between the South Fork and Castaic Creek which is included as part of the Natural River Management Plant (NRMP).

Northwest Spur Pipeline

Other than those previously described, there are no additional biological resources with special status recognition expected to occur within the Northwest Spur Pipeline study area.

3.4.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to biological resources are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Game and Wildlife Service.[1]

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d. Interfere substantially with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

An evaluation of whether an impact on biological resources would result in a "substantial adverse effect" must consider both the resource itself and how that resource fits into a regional context. For the proposed project, the regional setting of the project includes the Santa Clarita Valley.

For the purposes of the impact analysis, "substantial adverse effect" is defined as the loss or harm of a magnitude which, based on current scientific data and knowledge, would: (1) substantially diminish population numbers of a species or distribution of a habitat type within the region or (2) eliminate the functions and values of a biological resource in the region.

[1] Endangered and Threatened species, as used in this threshold, are those listed by the USFWS and/or CDFG as Threatened or Endangered. Section 15380 of CEQA indicates that a lead agency can consider a non-listed species (e.g., CNPS List 1B plants) to be Endangered, Rare, or Threatened for the purposes of CEQA if the species can be shown to meet the criteria in the definition of Rare or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered in determining if a non-listed species met the definitions for Rare and Endangered according to Section 15380 of CEQA.

Direct Impacts

Threshold: *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Game and Wildlife Service?*

RWMP Components

Vegetation Type Impacts

Within the RWMP study area, the precise location of common vegetation types has not been delineated and the precise location of impacts has not been determined. Based on general information regarding the vegetation occurring in the region and the general location of proposed RWMP components, it is assumed that the majority of the proposed project would be located in developed areas and predominantly common vegetation types would be removed. Additionally, only minor amounts of vegetation would be removed because the majority of the RWMP components would be constructed on developed land or within roadways (i.e., pipelines, pump stations). Construction of the water tanks would require more vegetation disturbance (approximately one-half-to-one acre per tank); however, this amount of impact to common vegetation types would be less than significant. Therefore, due to the abundance of common vegetation types in the region and the scattered locations of potential future impacts, this impact would be less than significant.

Wildlife Impacts

Due to the lack of site-specific information for the construction of the various RWMP components and the known presence of wildlife in the region in general, it is assumed that wildlife would be impacted by the implementation of the RWMP. Most impacts to wildlife would be associated with the construction and operation of the water tanks or other facilities located in undeveloped areas. It can be assumed that each tank would result in approximately one-half-to-one acre of permanent habitat disturbance, depending on the site characteristics and the size of the tank. At the scale proposed as part of the whole RWMP, the general habitat loss, wildlife loss (direct mortality), wildlife movement, and habitat fragmentation of wildlife species that may occur is considered potentially significant. Impacts on wildlife would be reduced to less than significant with implementation of Mitigation Measures 3.4-1, 3.4-2 and 3.4-3, which require avoidance and impact minimization, or implementation of a restoration plan if impacts are unavoidable.

Special Status Vegetation Type Impacts

Within the RWMP study area, the precise location of special status vegetation types has not been delineated and the precise location of impacts has not been determined. Based on general information regarding the special status vegetation occurring in the region and the general location of proposed RWMP components, it is assumed that special status vegetation types may be impacted. Due to the rarity of these vegetation types that would be removed as part of the entire RWMP, this impact is considered potentially significant. Impacts on special status vegetation types would be reduced to less than significant with implementation of Mitigation Measures 3.4-1 and 3.4-2, which require avoidance and impact minimization, or implementation of a restoration plan if impacts are unavoidable.

Special Status Plants

The presence and location or absence of special status plants within the RWMP study area has not been determined. Based on existing information provided in this document and the general location of proposed RWMP components, many special status plant species may be impacted. Due to the special status of these species, this impact is considered potentially significant. Impacts to these species would be reduced to less than significant with implementation of Mitigation Measures 3.4-1 and 3.4-2, which require avoidance and impact minimization, or a habitat assessment for special status plant species and focused surveys, if necessary.

Special Status Wildlife

Due to the lack of site-specific information for the construction of the various RWMP components and the known presence of many special status wildlife species in the region, it is assumed that some may be potentially impacted. In addition, there are several USFWS Critical Habitat designations located at least partially within the CLWA Service Area, including Critical Habitat for the southwestern arroyo toad, California red-legged frog, and coastal California gnatcatcher. Due to the special status of these and other known species in the project area, this impact is considered potentially significant. Impacts to these species would be reduced to less than significant with implementation of Mitigation Measures 3.4-1, 3.4-2 and 3.4-3, which require: (1) avoidance and impact minimization or (2) a habitat assessment for special status wildlife species and focused surveys, if necessary, and/or (3) a pre-construction nesting bird survey.

Other Impacts

Within the RWMP study area and the Northwest Spur Pipeline study area during construction, temporary noise impacts have the potential to disrupt foraging, nesting, roosting, and denning activities for a variety of wildlife species. Because most species in the vicinity of the study area are not listed as Threatened or Endangered by state or federal resource agencies, these impacts are considered adverse, but not significant. However, listed species (such as the southwestern willow flycatcher and Least Bell's vireo) and potential nesting raptor species may incur temporary short-term impacts from construction noise if present in the vicinity of the project impact area. These species may be temporarily displaced due to these disturbances. Noise impacts on these species would be considered significant because these species are protected by federal and state wildlife agencies. Impacts on these species would be reduced to less-than-significant levels with implementation of Mitigation Measure 3.4-3, which requires avoidance of construction during the nesting bird season, if feasible.

Within the RWMP study area as well as the Northwest Spur Pipeline study area, construction activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs. The respiratory function of the plants in the area would be impaired when dust accumulation is excessive. This effect of the proposed project's construction on the native vegetation in the immediate vicinity of the construction area would be adverse but less than significant since it would not reduce plant populations below self-sustaining levels. Therefore, no mitigation would be required.

Additional impacts on biological resources in the area could occur as a result of changes in water quality. Silt runoff from the project construction areas or improper disposal of petroleum and chemical products from construction equipment could temporarily impact water quality during construction. Areas downstream of the project construction areas that could be impacted include Castaic Creek and the Santa Clara River (SEA 23). These impacts are considered potentially significant since the project could incrementally contribute to a reduction in water quality in the project region. These impacts would be reduced to less than significant with the implementation of Regulatory Requirements 3.4-1 and 3.8-1 from Section 3.8, Hydrology and Water Quality.

Implementation of the RWMP would not create substantial amounts of impervious cover. The pipelines would be under existing roadways. The water tanks would increase the amount of impervious cover in the CLWA service area by approximately 4 acres (0.5 acre for each reservoir); however, this increase would not contribute substantial amounts of polluted urban runoff that could significantly impact water quality. Therefore, impacts to biological resources from urban runoff would be less than significant.

Northwest Spur Pipeline

Vegetation Type Impacts

Construction of the proposed Northwest Spur Pipeline would result in direct impacts to approximately 5.89 acres. The impacted area is largely paved (roughly 4.33 acres) while the remainder includes ornamental, disturbed, and ruderal vegetation. These vegetation types are all very common and are not considered special by any resource agencies. One additional area that would temporarily be impacted consists of an unvegetated wash in Castaic Creek, which is considered special status by the CDFG. The booster pump station sites are either currently graded or do not support special status vegetation types or habitats. Impacts to this vegetation type are discussed further below. Consequently, the direct impact to common vegetation types is considered less than significant.

Wildlife Impacts

Direct impacts to wildlife resulting from the construction of the proposed Northwest Spur Pipeline are expected to be extremely minimal. As previously described, very few species are expected to utilize the small Northwest Spur Pipeline study area and most of those that do are highly mobile bird species. Temporary impacts resulting from construction activities within Castaic Creek would have little disturbance and would occur within a small unvegetated wash area that has relatively low biological value resulting in minimal impacts to wildlife. Two of the booster pump station sites are currently graded and do not support habitats or wildlife. The booster pump station site located near Henry Mayo Drive and SR-126 is adjacent to buckwheat scrub, but would not directly impact the vegetation. As a result, direct impacts on common wildlife that result from the construction of the Northwest Spur Pipeline are considered less than significant.

Special Status Vegetation Type Impacts

Construction of the proposed Northwest Spur Pipeline would result in direct impacts to one special status vegetation types, wash. Impacts to this vegetation type would result from temporary access needed to construct the pipeline, which shall be suspended from the bridge over Castaic Creek. These impacts would have little disturbance and would result in the loss of no more than a few individual plants. The wash habitat would experience no substantial change from these activities. Consequently, the direct impacts to special status vegetation types are considered less than significant.

Special Status Plants

The Northwest Spur Pipeline study area contains no potential to support any special status plant species. Consequently, construction of this component of the project would result in no impacts to special status plant species.

Special Status Wildlife

One portion of the Northwest Spur Pipeline study area contains potential to support special status wildlife species. The segment of Castaic Creek that would incur temporary impacts has potential to support the federally listed arroyo toad, Santa Ana sucker, and the unarmored threespine stickleback as well as state species of concern such as the Arroyo chub, San Diego black-tailed jackrabbit, San Diego desert woodrat, and the western spadefoot. Due to the limited area of impact and its temporary nature, impacts to the Arroyo chub, San Diego black-tailed jackrabbit, San Diego desert woodrat, and the western spadefoot would not substantially reduce regional populations and would, therefore, be a less-than-significant impact. Potential impacts to listed species, including the arroyo toad, Santa Ana sucker, and unarmored threespine stickleback, are considered significant due to their rarity in the region and their federal protective status. Impacts to these species would be reduced to less than significant with implementation of Regulatory Requirements 3.8-1 and 3.4-1 and Mitigation Measures 3.4-1, 3.4-2, and 3.4-3.

Threshold: *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

RWMP Components

The Santa Clara River as well as many other drainages within the RWMP area contain riparian habitat which is considered sensitive and protected by CDFG regulations. Several other upland vegetations types known to occur in the region are also considered sensitive. Therefore, where the RWMP pipelines would need to cross through such areas, potential significant impacts due to removal of vegetation during temporary construction activities may result. However, compliance with Regulatory Requirement 3.4-1 and Mitigation Measure 3.4-1 would ensure that potential impacts to riparian habitat and other sensitive natural communities would be less than significant.

Saugus WRP discharged an annual average of 13.7 mgd (15,348 af/yr) and 4.7 mgd (5,265 af/yr), respectively, of effluent to the Santa Clara River, for a combined effluent discharge of 18.4 mgd (20,614 af/yr). This is the most recent data available of the effluent production from the Valencia and Saugus WRP. The Saugus and Valencia WRPs are an inter-connected system and, given the same total effluent, more or less at one plant has a correspondingly inverse effect at the other. Over the past few years flows have been increased at the Valencia WRP and decreased at the Saugus WRP due to operational considerations, but the flows at the Saugus WRP are expected to increase back to the design capacity of the plant.

By 2030, the anticipated design capacities of the Saugus and Valencia WRPs are expected to be 6.5 mgd (current design capacity at the Saugus WRP) and 27.6 mgd, respectively, for a combined WRP design capacity of 34.1 mgd. Based on the RWMP, reuse of this effluent is anticipated at 15.5 mgd (17,400 af/yr) by year 2030. Because no recycled water would be taken from the Saugus WRP and no expansion of this WRP is planned, it is anticipated that effluent discharges to the Santa Clara River from the Saugus WRP will be at the current design capacity

of 6.5 mgd. The remaining discharges to the Santa Clara River will be from the Valencia WRP, and are anticipated to be 12.1 mgd (27.6 mgd less 15.5 mgd of reuse) by 2030.

Even though the discharge from the Valencia WRP to the river is anticipated to be lower than the 2001-2005 average conditions, the combined effluent discharges from both WRPs to the river are not expected to appreciably change. By 2030 (planning horizon for the RWMP), the combined WRP effluent discharge to the river of 18.6 mgd (34.1 mgd at both WRPs less 15.5 mgd of reuse at Valencia WRP) is slightly higher than the 2001-2005 average discharge conditions from both WRPs of 18.4 mgd. Therefore, the implementation of the RWMP would not impact the hydrology or ecology of the Santa Clara River system since the combined existing discharge conditions from both WRPs would be essentially maintained in the river.

At Shangri La, the water is currently pumped from an aquifer into a channel that leads directly to the Santa Clara River. The proposed project would divert this flow entirely, thereby slightly reducing the flows in the river. Peak discharges from Shangri La ranged from 100,000 to 115,000 gpd in 1993 to 10,000 to 20,000 gpd in 1998. The average discharge has been approximately 40,000 gpd from 1993 through 2005. The Valencia WRP discharged a monthly average of approximately 16.7 mgd of effluent from January 2005 through September 2005 (nine months). Based on this information, the Shangri La discharge accounts for approximately 0.24 percent of the average Santa Clara River flow in 2005; therefore, reduction in flow resulting from the proposed diversion of water at Shangri La would be very minimal. Additionally, since the total recycled water supply of the RWMP is fixed at 17,400 af/yr, any water diverted from Shangri-La would result in less water taken from other sources, namely the Valencia WRP. The diversion of this flow into the recycled water system would not significantly impact riparian resources downstream in the river. In addition, flows in the Santa Clara River are expected to increase due to other sources discharging at greater rates into the future.

The project impacts on in-stream flows and the subsequent effects on riparian habitat or other sensitive natural communities are, therefore, considered less than significant.

Northwest Spur Pipeline

The Northwest Spur Pipeline would not directly contribute to the diversion of instream flows from the Santa Clara River. Construction of the pipeline would result in direct impacts to one special status riparian vegetation types, wash. As previously described, impacts to this vegetation type would result from temporary access needed to construct the pipeline, which shall be suspended from the bridge over Castaic Creek.

These impacts would have little disturbance resulting in the loss of no more than a few individual plants. The wash habitat would experience no substantial change from these activities. There would be no permanent impacts related to degradation of any sensitive natural community. However, compliance with Mitigation Measure 3.4-1 would ensure that potential impacts to the Castaic Creek wash habitat would be less than significant. Two of the booster pump station sites are currently graded and do not support special status vegetation types or habitats. The third booster pump station site is located adjacent to disturbed buckwheat scrub but would not impact the habitat.

Threshold: *Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

RWMP Components

Any phase or component of the RWMP that involves impacting drainages, streams, or wetlands through filling, stockpiling, conversion to a storm drain, channelization, bank stabilization, road or utility line crossings, or any other modification to a jurisdictional drainage would require permits from the USACE, the Los Angeles Regional Water Quality Control Board (RWQCB), and the CDFG before any development could commence. Both permanent and temporary (construction-related) impacts are regulated and would therefore trigger the need for permits.

The USACE regulates discharges of dredged fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA). A federal permit would be required from the USACE Regulatory Branch-Los Angeles District Office should improvements associated with the proposed RWMP improvements result in the discharge of material within the USACE's jurisdiction. Temporary impacts would likely be authorized via a Section 404 Nationwide Permit (NWP) 33, Temporary Construction, Access, and Dewatering. If the RWMP would result in permanent impacts, it is anticipated that the proposed improvements could be authorized via NWP 12, Utility Line Discharges. NWP 12 typically authorizes discharges of dredged or fill material associated with excavation, backfill, or bedding for utility lines (e.g. water pipelines, including outfall and intake structures, provided that there is no change in preconstruction contours and as long as impacts would be less than 0.5 acre.

For the USACE 404 permit to be approved, a 401 Water Quality Certification from the Los Angeles RWQCB would be required. The drainages (streambeds) located within the boundaries of the Project Site would be considered jurisdictional by the CDFG; therefore, a 1602 Streambed Alteration Agreement (SAA) would need to be obtained prior to any jurisdictional impact.

Compensatory mitigation for the loss of wetland or riparian function and values is a fundamental component of the applicable regulatory programs. Mitigation can take several forms. It can consist of: (1) avoidance or minimization of impacts, (2) compensation in the form of habitat creation, or (3) compensation through participation in a mitigation bank. The first type of mitigation (avoidance or minimization of impacts) is preferred by the agencies and should be investigated to the maximum extent possible. For any project that impacts riparian vegetation, the agencies prefer that compensation through the creation of habitat be performed on site and in kind (i.e., riparian woodland for riparian woodland; sandy bottom for sandy bottom). The exact requirements of any special permit conditions established for this project would be dictated by regulatory agencies following review of the formally submitted project application. If impacts to jurisdictional waters cannot be avoided through project design, all federal and state permits must be obtained, as detailed in Regulatory Requirement 3.4-1.

Based on the presence of many jurisdictional areas within the boundaries of the RWMP, the potential for impacting jurisdictional drainages is considered likely. Some proposed pipelines traverse drainages and/or other jurisdictional features which may require direct temporary or permanent impacts to these resources. Impacts on wetlands in the RWMP study area could occur as a result of changes in water quality. Runoff of silt from the project construction areas, or improper disposal of petroleum and chemical products from construction equipment could temporarily impact water quality during construction. Minor increases in impervious cover due to water tank construction may slightly increase polluted urban runoff.

However, most of these impacts would likely be small (under 0.1 acres per impact area) and temporary (occurring only during the construction phase). Permanent impacts would be limited to service road crossings that provide access to new water tanks and would be expected to cover no more than 0.01 acre (per crossing). Due to the very limited quantity of jurisdictional waters expected to be impacted, the temporary nature of the vast majority of these impacts, and

the staggered time frame in which the impacts would occur, impacts on jurisdictional waters are considered less than significant. In addition, adherence with Regulatory Requirement 3.4-1 and Regulatory Requirement 3.8-1 from Section 3.8, Hydrology and Water Quality, will further reduce these impacts.

Northwest Spur Pipeline

Construction of the Northwest Spur Pipeline will result in no permanent impacts to jurisdictional waters but will result in temporary impacts to jurisdictional waters within Castaic Creek. Scaffolding and other equipment used in the creek while attaching the pipeline on to the vehicular bridge which spans Castaic Creek would temporarily disturb soils on the upper flood terraces of the creek bed. Due to the very limited quantity of jurisdictional waters expected to be impacted and the temporary nature of the impact, impacts on jurisdictional waters are considered less than significant. In addition, adherence with Regulatory Requirement 3.4-1 will further reduce these impacts. Implementation of Regulatory Requirement 3.8-1 from Section 3.8, Hydrology and Water Quality, would also further reduce these impacts.

Threshold: *Would the project interfere substantially with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

RWMP Components

Site-specific information for most RWMP components is unknown; however, impacts on wildlife movement are expected to be minimal based on the general proposed area of impacts and the type of impact that would occur. The construction of reservoirs would result in permanent structures that may impede some local movement of wildlife in the immediate vicinity. These structures, however, are unlikely to effect regional movement because their locations would not be within canyon bottoms or drainages where such movement normally occurs. In addition, the size of these structures is relatively small and wildlife would be expected to easily travel around them. Other RWMP components, including booster pump station(s) and well heads, would be too small to impede regional wildlife movement. The other proposed activity, pipeline construction, would be temporary and would occur in short segments at a time. It would not result in substantial adverse effects on wildlife movement. Impacts on wildlife movement would be, therefore, less than significant.

Northwest Spur Pipeline

Temporary impacts resulting from construction of the Northwest Spur Pipeline component of the RWMP would be minimal due to the lack of regional wildlife movement occurring within the construction footprint over most of the impact area. Within Castaic Creek, regional wildlife movement may occur; however, impacts would result in minimal disturbance to the creek bed and would not impede movement. Indirect impacts such as increased noise and dust would reach the adjacent habitat within Castaic Creek and the Santa Clara River. Although these stream beds are likely to support regionally important wildlife movement, the temporary nature, short duration and daytime work period of the proposed construction are not expected to result in substantial adverse effects on movement. This impact would be, therefore, less than significant.

The booster pump station sites do not provide for wildlife corridor linkages because they is adjacent to The Old Road and/or Henry Mayo Drive, which is a barrier to wildlife movement. Additionally, the project sites are small (approximately 1,000 square feet each) and will be surrounded by future commercial development and/or roadway.

Threshold: *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

RWMP Components

The construction of all components of the RWMP has the potential to impact native trees through the removal of trees and/or result in impacts to tree root systems. Although a Los Angeles County ordinance protects native trees and requires replacement if impacted, the CLWA is not required to comply with local ordinances. Because the ordinance is not applicable, the proposed project would not conflict with it and the impact would be less than significant. However, these impacts may be reduced through implementation of Mitigation Measure 3.1-4 from Section 3.1, Aesthetics.

The implementation of the RWMP has the potential to impact Significant Ecological Areas. However, this is a Los Angeles County zoning overlay and the CLWA is not required to comply with its conditions. Therefore, this impact would be considered less than significant and no mitigation would be required. However, implementation of Mitigation Measures 3.1-4, and 3.4-1 through 3.4-3, as well as the Regulatory Requirements 3.4-1, and 3.8-1, would reduce impacts to biological resources in general.

Northwest Spur Pipeline

The construction and operation of the Northwest Spur Pipeline would not impact any trees. The width required for the trenching is approximately up to 6 feet wide, with approximately 8 feet for construction staging on either side of the trench, for a total construction footprint of approximately 22 feet. The trenching would be entirely within the roadway easement and would not impact trees adjacent to the project area. As previously discussed, the Northwest Spur Pipeline would not impact any SEAs. The booster pump station sites have been previously graded in association with an adjacent commercial development and do not contain any trees.

Threshold: *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

RWMP Components

On November 30, 1998, the Natural River Management Plan (NRMP) for the Santa Clara River was approved by the USACE. The purpose of the NRMP is to plan for the development and preservation of the natural resources and habitats along part of the main stem of the Santa Clara River from Castaic Creek to one-half mile east of the Los Angeles Department of Water and Power Aqueduct and parts of San Francisquito Creek and the Santa Clara River South Fork. Constructions of some of the proposed RWMP components may result in impact to jurisdictional resources within the NRMP area. Within these areas, the necessary permits from the USACE and CDFG may be processed in accordance with the Natural River Management Plan or through application for separate permits from these agencies. If the NRMP permits are utilized, the conditions of the permit, as described in the Plan, would be adhered to. In addition, the RWMP area does not occur within any other conservation planning area. Therefore, the project would not conflict with the provisions of the NRMP or any other conservation plan and no impact is expected.

Northwest Spur Pipeline

Although the construction of the Northwest Spur Pipeline would temporarily impact jurisdictional waters and wash habitat associated with Castaic Creek, this location is outside the NRMP area. In addition, the Northwest Spur Pipeline does not occur within any other conservation planning area. Therefore, the project would not conflict with the provisions of the NRMP or any other conservation plan and no impact is expected.

Indirect Impacts

The implementation of the RWMP would not result in any indirect biological impacts. Potential impacts from population growth that would occur as indirect impacts are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.4.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

RR 3.8-1 Prior to the commencement of grading activities for construction of each of the proposed project components, CLWA shall determine whether or not the construction activities are required to obtain coverage under the NPDES General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ) or the NPDES General Permit for Storm Water Discharges Associated with Construction Activity from Small Linear Underground Projects (Water Quality Order 2003-0007-DWQ). If the project component meets the criteria for coverage under either of these two NPDES permits, then CLWA will be responsible for filing a Notice of Intent, a SWPPP (if applicable), and the appropriate fees to the State Water Resources Control Board, Division of Water Quality in order to obtain coverage under the applicable NPDES permit. Pursuant to the permit requirements, CLWA shall minimize construction related pollutants, including erosion-related sediment, in the site runoff through the implementation of Best Management Practices.

RR 3.4-1 Prior to the construction of any phase or component of the RWMP that involves impacting drainages, streams, or wetlands through filling, stockpiling, conversion to a storm drain, channelization, bank stabilization, road or utility line crossings, or any other modification to a jurisdictional drainage, a jurisdictional delineation shall be conducted. Any jurisdictional impacts would require permits from the USACE, the RWQCB, and the CDFG before any development could commence. Both permanent and temporary (construction-related) impacts are regulated and would therefore trigger the need for permits. Compensatory mitigation for the loss of wetland or riparian function and values is a fundamental component of the applicable regulatory programs.

Mitigation Measures

MM 3.1-4 Prior to the commencement of grading activities for any component of the RWMP, a qualified Biologist/Arborist shall be consulted to determine the biological/aesthetic value of potentially impacted trees. All impacted native trees shall be replaced at a minimum ratio of 1:1 to mitigate for the loss of biological

value, and all impacted ornamental trees shall be replaced at a minimum ratio of 1:1 to mitigate for aesthetic impacts. All impacted trees shall be replaced with appropriate native species at an ultimate ratio to be determined by a qualified Biologist/Arborist. ***(Repeated from Section 3.1, Aesthetics)***

MM 3.4-1 As each component of the RWMP is brought forward for implementation (with the exception of the Northwest Spur Pipeline), a Biological Reconnaissance Survey will be conducted by a qualified Biologist to map and determine the extent and location of all special status vegetation types, to assess the suitability for special status plant and wildlife species and to conduct focused surveys at the appropriate time of year if suitable habitat is present within or adjacent to the proposed impact area. Surveys will definitively determine the absence or the presence and location of all special status plant species. If present, an assessment of the potential impacts will be conducted. If potentially significant impacts are assessed, the CLWA will attempt to avoid, or minimize if not possible to avoid, the impacts by adjusting the location of the proposed pipeline alignment or reservoir location. For unavoidable impacts, a mitigation plan shall be prepared and implemented to offset such impacts.

Impacted special status vegetation types will be restored on site. A revegetation program will be implemented in accordance with an appropriate, agency-approved landscape palette developed for the region on all graded areas not utilized for improvements or structures. Restoration will consist of seeding and planting containers of appropriate species. For those special status plant species that may be replanted, a pre-construction survey during the peak flowering period will be conducted by the Project Biologist. The limits of each plant or plant population location within the impact area will be clearly delineated with lath and brightly colored flagging. If the plant is located in the impact area, the loss will be mitigated by seed and bulb collection, if appropriate (depending on the growth type of the species), and revegetated onto a suitable mitigation site in the vicinity.

A detailed revegetation and special status plant restoration program will be developed and implemented and will contain the following items: responsibilities and qualifications of the personnel to implement and supervise the plan; site selection; site preparation and planting implementation; schedule; maintenance plan/guidelines; monitoring plan; long-term preservation; and performance standards. Restored areas shall be designated as open space and shall be protected from development in perpetuity.

In addition, if a potentially impacted species is state or federally listed as Threatened or Endangered, the CDFG and/or the USFWS will be consulted and a permit application will be submitted. The requirements of the mitigation, as set forth by the appropriate agency, will be adhered to. At a minimum, the construction period will be scheduled to avoid the breeding season of such species, year-long residents shall be relocated if feasible, and loss of habitat will be replaced at a minimum ratio of 1:1.

In an effort to avoid or minimize impacts to nesting birds, seven days prior to the onset of construction activities, a qualified Biologist will survey within 500 feet of the current project component impact area for the presence of any active raptor nests (common or special status). Any nest found during survey efforts will be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys will be provided to the CDFG.

MM 3.4-2 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 applicant will submit a letter to the appropriate agencies verifying that construction limits have been flagged in the field. No earth-moving equipment will be allowed within the open space areas.

MM 3.4-3 The most noise-intensive portions of construction (i.e., asphalt scraping or pounding) shall be conducted outside the bird nesting season (March 15 to September 15) to avoid disturbance of nesting by special status bird species. If construction cannot be avoided during this time period, construction will be limited in the vicinity of nests per the recommendations of a qualified Biologist. In addition, temporary disturbance within Castaic Creek shall occur outside the breeding season of those special status wildlife species that potentially occur in the impact area and during periods of no surface water flow. Construction shall essentially be limited to the months of July, August, September, and October with August and September being the preferable months for construction. No night lighting or nighttime construction shall be allowed within Castaic Creek. If listed species are determined to be present in the vicinity, a Noise Monitoring Program will be implemented during the nesting season of that particular species.

3.4.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With incorporation of the mitigation program, potentially significant impacts to biological resources would be reduced to levels less than significant. Implementation of the RWMP would not create significant unavoidable adverse biological impacts.

3.5 CULTURAL RESOURCES

3.5.1 ENVIRONMENTAL SETTING

This section of the EIR analyzes the proposed project's potential impacts on archaeological, historical, and paleontological resources. This analysis is based on the *Cultural Resource Assessment for the Castaic Lake Water Agency Recycled Water Master Plan and the Northwest Spur Pipeline, Santa Clarita, Los Angeles County, California*, prepared by BonTerra Consulting on November 7, 2006, and located in Appendix D.

Cultural Background

The prehistory of the Santa Clarita Valley is best described by a general chronology that was developed for the southern California coastal region by William Wallace in 1955. He identified four archaeological *horizons* based on types of artifacts and on features that are diagnostic of broad periods in prehistory:

- Early Man Horizon (before 7,000 years ago)
- Millingstone Horizon (7,000–3,500 years ago)
- Intermediate Horizon (3,500–1,500 years ago)
- Late Prehistoric Horizon (1,500–historic contact, about. 200 years ago)

The Cultural Resources Assessment includes a complete description of the prehistory of the greater Santa Clarita Valley area, dating back to the Early Man Horizon. This cultural resources analysis focuses on the Late Prehistoric Horizon, specifically the occupation of the project area by the Tataviam, or *Alliklik*. Excavation related to the proposed project would most likely encounter archaeological resources from this period, rather than older periods.

The Late Prehistoric Horizon (or Late Period) began with larger populations and a wider variety of material culture and social institutions. Late Period archaeology is generally better understood because the late nineteenth and early twentieth century descendants of these groups provided additional information to early anthropologists. The Tataviam territory encompassed the Santa Clarita Valley area. The Tataviam were hunter-gatherers that spoke a variant of the indigenous Takic language. Takic-speakers are believed to have migrated into southern California from the Great Basin sometime between 1,000 and 3,000 years ago, an event some archaeologists believe interrupted the long-standing Millingstone way of life. Tataviam subsistence centered upon the seasonal gathering of plant foods (yucca, acorns, sage seeds, and juniper berries) and hunting (rabbit, rodents, deer, and antelope). Acorns, the staple food of most Late Period groups in California, may have been less important to the Tataviam, who utilized yucca more extensively. The plant was roasted in stone-lined earth ovens, often identified archaeologically.

With the Santa Clara River Valley and Antelope Valley acting as east-west corridors between the deserts and coast, the Tataviam likely participated in "down the line" long-distance trade. Shell beads found in the western Mojave Desert, for example, were acquired by the Takic-speaking Kitanemuk through a trade network in which the Tataviam may have been linked with Hokan-speaking Chumash on the coast. A number of Tataviam villages have been identified through historic registers at Mission San Fernando, including *tsawayung* at the original Newhall Ranch site near Castaic Junction, *naqava'atany* in the Elderberry Canyon area along Castaic Creek, and *pi'ing* at the confluence of Castaic Creek and Elizabeth Lake Canyon. The village site of *pi'ing* probably lies under Castaic Lake, which was created when Castaic Creek was dammed in 1972.

Decimated by Spanish missionization and absorbed by other groups through intermarriage, the Tataviam vanished rapidly from the cultural landscape. So few descendents could be identified from the Tataviam that little of them is known. What is known about their culture has been reconstructed through linguistic and ethnohistoric research, archaeological analysis, and remembrances of individuals from neighboring bands. By the time anthropologists began to collect data about traditional native lifeways in California (about 1900), virtually no Tataviam could be found.

The major historic periods for the greater Los Angeles area are defined by key events documented by participants, witnesses, historians, and cartographers:

- Spanish Period (1769–1822, or 236–183 years ago)
- Mexican Period (1822–1848, or 183–157 years ago)
- American Period (1848–Present, or since 157 years ago)

Spanish contact with Native American groups along the coast began as early as the mid 1500s, but it was not until the late 1700s that first the Spanish and then the Mexicans, established any kind of continuous presence. The discovery of gold in Placerita Canyon near Newhall during the 1840s attracted many miners to the area, and agricultural and livestock operations rose up in the Santa Clara River Valley to support their need for provisions. Oil was discovered in the area in the 1870s, and settlement accelerated throughout the late 1800s with the development of regional and interregional transportation systems. Historic resources documented in the CLWA service area are usually associated with major routes of travel, watercourses, and early homesteading practices in and around Newhall.

Cultural Resource Assessment Methodology

A Phase I Cultural Resources Assessment was performed for the Northwest Spur Pipeline RWMP component. The location and time of construction for the remaining RWMP components has not been determined; therefore, site-specific cultural resource reviews were not conducted.

The cultural resource review of the Northwest Spur Pipeline project area included an archeological/historical/cultural records search conducted by the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton. A paleontological assessment was conducted by the Natural History Museum of Los Angeles County (NHMLAC). Additionally, a combination reconnaissance i.e., windshield and intensive pedestrian survey was conducted by BonTerra Consulting staff in July 2005.

The 0.11-mile (570 feet) unpaved portion of the pipeline route that is near the Valencia Water Reclamation Plant (WRP) was surveyed on foot. The majority of the remaining 2.24-mile pipeline route will be constructed beneath existing paved roads; therefore, a windshield survey was conducted along most of this segment. The total pipeline distance is 2.35 miles. An area along Henry Mayo Drive was surveyed on foot due to good ground visibility; this area was adjacent to the north side of the paved road. In addition, other random areas with exposed soils located adjacent to the road were visually inspected for archaeological evidence. During the windshield survey, a review of the existing landscape was undertaken to identify any historic period resources that might be impacted by installation of the pipeline and associated booster pump stations.

Existing Cultural Resources

Archaeological Resources

The SCCIC reported that one prehistoric archeological site has been recorded within one mile of the Northwest Spur Pipeline, as summarized below in Table 3.5-1. No archaeological resources are located within the Northwest Spur Pipeline project area. The nearest cultural resource site reported by the SCCIC is located approximately one-quarter mile south of the project area.

TABLE 3.5-1
ARCHAEOLOGICAL RESOURCES RECORDED WITHIN ONE MILE

SCCIC Designation	Date(s) Recorded	Site Description
CA-LAN-823	1975; 1989 (update)	This site is described as a late period Chumash village site. The property owners found nine burials at an unknown date during trenching activities. The area was field-checked in 1989 and it was noted that the site may have been misplotted.
Source: BonTerra Consulting 2005b (Appendix D).		

The field survey did not identify any previously unrecorded archaeological sites. Additionally, no evidence of any prehistoric or historic-era archaeological deposits was observed. The Native American Heritage Commission (NAHC) reported that a search of the Sacred Lands File did not reveal the presence of any Native American sites or properties in the vicinity of the Northwest Spur Pipeline project area. No further Native American consultation was undertaken because no prehistoric sites or special Native American properties were identified in the project area or the surrounding vicinity.

Historical Resources

The SCCIC reported that three historic sites have been recorded within one mile of the Northwest Spur Pipeline, as summarized below in Table 3.5-2. No reported historical resources are located within the Northwest Spur Pipeline project area. The nearest cultural resource site reported by the SCCIC is located approximately one-quarter mile south of the project area.

TABLE 3.5-2
HISTORICAL RESOURCES RECORDED WITHIN ONE MILE

SCCIC Designation	Date(s) Recorded	Site Description
CA-LAN-961	1978	This resource was recorded as a two-story wood-framed house built in 1928 by Henry Newhall.
CA-LAN-962	1978	This site was recorded as the *Assistencia* of the Mission San Fernando; it was abandoned in 1857 due to earthquake damage.
CA-LAN-2190	1993	This site is an 1898 Southern Pacific Railroad bridge.
Source: BonTerra Consulting 2005b (Appendix D).		

The Office of Historic Preservation's Historic Property Data File (HPDF) for Los Angeles County (July 2, 2003) includes 70 buildings or structures in the City of Santa Clarita and vicinity. The HPDF includes listings for the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), the California Historical Landmarks (CHL), and the California Points of Historical Interest (CPHI). One resource, The Old Road Bridge, was listed in the HPDF with National Register Status criteria "5S2" or "individual property that is eligible for local listing or designation." The location of this resource is not specified in the HPDF.

One CHL was identified within the one-mile search radius. The marker for CHL No. 556, the Rancho San Francisco, is located at the southwestern corner of The Old Road and Henry Mayo Drive (SR-126) at Castaic Junction. The marker notes that the adobe headquarters of the Rancho San Francisco was located approximately one-half mile to the south. The rancho was originally built around 1804 as a granary of Mission San Fernando. The rancho was granted to Antonio de Valle in 1839. The marker further states that William Lewis Manly and John Rogers obtained supplies and animals to use in the rescue of a group of California-bound travelers who were stranded in Death Valley in 1850. The marker is located adjacent to the west side of the road.

The Union Pacific rail line, located one mile south of the project, represents the historic Southern Pacific Railroad (SPRR) alignment established between Ventura and Newhall in 1887. The SPRR line is shown on the historic 1903 USGS *Santa Paula* 15' Topographic Quadrangles, but the SCCIC did not note the historic alignment because it has not been formally recorded as a resource.

Although a few dirt roads and structures are shown in the general area on the 1903 USGS *Santa Susanna* Quadrangle, the historic map does not indicate any early development within the project site. The 1943 USGS *Santa Susanna* 15' Topographic Quadrangle shows further development in the general area, but only one historic feature, The Old Road, appears in the project site. The Old Road appears to have the same road alignment today as the 1943 alignment; it has not been formally recorded as a resource.

The SCCIC indicated that at least 23 studies have previously been conducted within 1 mile of the project. Six of these studies are within a portion of the project area. No archaeological or historical resources were identified within the proposed project area during these investigations. In addition, the ethnographic evidence indicates that the village of *tsawayung* was located somewhere near the original Newhall Ranch site near Castaic Junction, which is in the vicinity of the proposed pipeline route. The exact location of this village has never been linked to any known archaeological site.

No City of Santa Clarita Historic Sites are located in the vicinity of the Northwest Spur Pipeline project area. The field survey identified several built environment resources; however, none of these were within the paved road alignment that would be affected by the Northwest Spur Pipeline. They include the marker for CHL No. 556, erected on November 6, 1958, several mature eucalyptus and California Pepper trees, and two corrugated metal structures/ buildings of an unknown age. The marker is located on the west side of The Old Road, just south of the intersection with SR-126; it commemorates a site that is actually located approximately 0.5 mile south. The mature eucalyptus and pepper trees are located on either side of the road along Henry Mayo Drive and the grove of pepper trees is located near the entrance to the Valencia WRP. The two corrugated metal structures/buildings were observed along Henry Mayo Drive; these buildings were set back at least 10 feet from the road. The resource identified as The Old Road Bridge in the HPDF was not observed during the survey.

Paleontological Resources

The NHMLAC determined that no fossil localities are known within the Northwest Spur Pipeline project area. The upper layers of the northwestern portion of the proposed project area consist of younger Quaternary (late) alluvium and gravels where this portion crosses the Castaic Creek Wash. The upper layers in the remainder of the project area consist of younger Quaternary fan or fluvial deposits that are from the surrounding hills and/or the adjacent Santa Clara River and its associated drainages. These soils are unlikely to contain significant vertebrate fossil remains (BonTerra Consulting 2005b).

However, there may be older Quaternary alluvium at unknown depths beneath the upper layers that may contain vertebrate fossils in the project area. Two known vertebrate fossil localities have been identified in the older Quaternary deposit east-southeast of the proposed project area, south of the Santa Clara River and Soledad Canyon Road, and east of Bouquet Canyon Road. Fossil specimens of camel (*Camelidae*) and horse (*Equus*) were found in this area.

Regulatory Setting

Cultural resources include prehistoric and historic archaeological sites, districts, and objects; standing historic structures, buildings, districts, and objects; and locations of important historic events or sites of traditional/cultural importance.

These "historical resources" are defined in State CEQA Guidelines, Section 15064.5 as the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (Pub. Res. Code Section 5024.1, Title 14 CCR, Section 4850 et. Seq.).

2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code Section 5024.1, Title 14 CCR, Section 4852), including the following:

    a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

    b. Is associated with the lives of persons important in our past;

    c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

d. Has yielded, or may be likely to yield, information important in prehistory or history.

Paleontologic resources are the recognizable remains of once-living, non-human organisms. Identified as fossils, these resources represent a record of the history of life on the planet dating as far back as approximately four billion years ago. Paleontologic resources can include shells, bones, leaves, trails, and other fossilized floral and faunal materials.

3.5.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to cultural resources are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

d. Disturb any human remains, including those interred outside of formal cemeteries.

Direct Impacts

Threshold: *Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*

RWMP Components

No cultural resources studies were conducted for Phases 2 to 11 of the RWMP because the location and construction schedule for these components are not yet known. Historical resources are present in the CLWA service area. During the 25-year construction horizon, new historical resources may be identified and attitudes regarding historical significance may change, thus requiring further or different studies. Therefore, implementation of the RWMP components involving ground disturbance could result in direct impacts to historical resources. Preparation of a Phase I cultural resource survey for each subsequent phase of the RWMP project, as delineated in Mitigation Measure 3.5-1, would reduce potential impacts to a less-than-significant level.

Northwest Spur Pipeline

The SCCIC records search revealed that although portions of the Northwest Spur Pipeline project area were examined during six previous surveys, no historical resources were identified or recorded within the pipeline project area during these investigations.

The marker for California Historical Landmark 556 (CHL No. 556) was identified by the SCCIC as being adjacent to The Old Road. The marker for CHL No. 556 was identified during the field survey at the southwestern corner of the intersection of The Old Road and SR-126, just west of the shoulder of the road. This portion of the pipeline route would be located entirely beneath the

existing paved road. Due to its proximity to the road, construction activities could foreseeably impact the marker for CHL No. 556. Although the marker is located one-half mile north of the site that it is commemorating, adverse effects to the 47-year-old marker as a result of pipeline construction would be considered significant. Implementation of Mitigation Measure 3.5-2, directing a 20-foot radius around the marker with no construction activity, would reduce potential impacts to a less-than-significant level. It should be noted that this component of the proposed project would have no impacts to The Old Road itself because the road has been improved and maintained over the years and the road alignment would not be altered.

Implementation of the Northwest Spur Pipeline would have no impacts to the two corrugated metal buildings that were observed along Henry Mayo Drive because the pipeline route would occur within the existing right-of-way. There would be no impacts to historic resources associated with the construction of the booster pump stations because undeveloped open space and the service road on the west side of The Old Road currently surround the site.

Threshold: *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

RWMP Components

No cultural resources studies were conducted for Phases 2 to 11 of the RWMP because the precise location and construction schedule for these components are not yet known. Archaeological resources are present in the CLWA service area. During the 20-year construction horizon, new archaeological resources may be identified and environmental conditions may change that increase ground visibility, thus requiring further or different studies. Therefore, implementation of the RWMP components involving ground disturbance could result in direct impacts to archaeological resources. Preparation of a Phase I cultural resource survey for each subsequent phase of the RWMP project, as delineated in Mitigation Measure 3.5-1, would reduce potential impacts to less than significant.

There is also the potential for ground disturbance during implementation of subsequent phases of the RWMP to encounter unanticipated archaeological resources not identified in the Phase I cultural resource survey, resulting in significant impacts. Implementation of Mitigation Measure 3.5-3, requiring the diversion of work from the site of a potential archaeological resource until it can be evaluated by qualified cultural resource personnel, would reduce potential impacts to less than significant.

Northwest Spur Pipeline

The SCCIC records search revealed that, although portions of the Northwest Spur Pipeline project area were examined during six previous surveys, no archaeological resources were identified or recorded within the pipeline project area during these investigations. In addition, the NAHC did not identify any sites or resources in the immediate vicinity of the pipeline project. The field survey did not identify any archaeological resource sites. However, construction of the Northwest Spur Pipeline component could encounter unanticipated archaeological resources. Implementation of Mitigation Measure 3.5-3, requiring the diversion of work from the site of a potential archaeological resource until it can be evaluated by qualified cultural resource personnel, would reduce potential impacts to less than significant. There would be no archaeological impacts associated with the construction of the booster pump station because the site has been previously graded in association with the construction of surrounding commercial development.

Threshold: *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

RWMP Components

No paleontological resources studies were conducted for Phases 2 to 11 of the RWMP because the location and construction schedule for these components are not yet known. Paleontological resources are present in the CLWA service area. Therefore, implementation of the RWMP components involving ground disturbance could result in direct impacts to paleontological resources. Preparation of a Phase I paleontological resource survey for each subsequent phase of the RWMP project, as delineated in Mitigation Measure 3.5-1, would reduce potential impacts to a less-than-significant level.

There is also the potential for ground disturbance during implementation of subsequent phases of the RWMP to encounter unanticipated paleontological resources not identified in the Phase I cultural resource survey, resulting in significant impacts. Implementation of Mitigation Measure 3.5-3, requiring the diversion of work from the site of a potential paleontological resource until it can be evaluated by a qualified Paleontologist, would reduce potential impacts to less-than-significant.

Northwest Spur Pipeline

The paleontological resources records search showed that the northwestern portion of the pipeline route, where it crosses the Castaic Creek Wash, is composed of younger Quaternary (late) alluvium and gravels. The upper layers of the remainder of the project area consist of younger Quaternary fan or fluvial deposits that are from the surrounding hills and/or the adjacent Santa Clara River and its associated drainages. These soils are unlikely to contain significant vertebrate fossil remains.

No vertebrate fossil localities within the Northwest Spur Pipeline project area have been identified; however, the records search indicated that older Quaternary alluvium at unknown depths beneath the upper layers may contain vertebrate fossils. The proposed trenching will involve the excavation of a 42- to 48-inch wide trench, to a depth of approximately seven feet. According to Samuel McLeod, Ph.D., there have not been sufficient paleontological studies in the vicinity of the project to determine whether the trenching will occur within the upper (non-fossil bearing) layers or within the older Quaternary (fossil bearing) layers (McLeod 2005). Therefore, the potential to encounter significant fossil resources exists. Implementation of Mitigation Measure 3.5-3, requiring the diversion of work from the site of a potential paleontological resource until it can be evaluated by qualified cultural resource personnel, and Mitigation Measure 3.5-4, requiring paleontological monitoring during initial ground disturbing activities, would reduce impacts to a less-than-significant level.

There would be no paleontological impacts associated with the construction of the booster pump station because the site has been previously graded in association with the construction of surrounding commercial development.

Threshold: *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

RWMP Components

No cultural resources studies were conducted for Phases 2 to 11 of the RWMP because the location and construction schedule for these components are not yet known. Implementation of the RWMP components involving ground disturbance could result in direct impacts by disturbing human remains. Preparation of a Phase I cultural resource survey for each subsequent phase of the RWMP project, as delineated in Mitigation Measure 3.5-1, would reduce potential impacts to less than significant.

Even with completion of the Phase I cultural resource survey, the possibility remains of encountering unanticipated human remains. Implementation of Regulatory Requirement 3.5-2, requiring cessation of activities and immediate consultation with the Los Angeles County Coroner's Office and the NAHC (if applicable), would reduce potential impacts to less than significant. There would be no impacts to human remains associated with the construction of the booster pump station because the site has been previously graded in association with the construction of surrounding commercial development.

Northwest Spur Pipeline

The cultural resources records search and NAHC consultation did not reveal that any recorded historic or Native American cemeteries within the Northwest Spur Pipeline project area. However, there is always the potential to encounter unanticipated human remains, resulting in significant impacts. Implementation of Regulatory Requirement 3.5-2, requiring cessation of activities and immediate consultation with the Los Angeles County Coroner's Office, and the NAHC if applicable, would reduce potential impacts to less than significant.

Indirect Impacts

The implementation of the RWMP would not result in any indirect impacts to cultural resources. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.5.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

RR 3.5-1 The Northwest Spur Pipeline crosses State Route 126, which is within the jurisdiction of the State of California Department of Transportation (Caltrans). Therefore, a copy of the Cultural Resources Technical Report shall be submitted to Caltrans as supporting documentation in conjunction with the Encroachment Permit Application Request. The submittal of this report with the Encroachment Permit Application Request will streamline the permitting process and may eliminate the need for a Caltrans-format Archeological Survey Report and/or a Historic Properties Survey Report. If additional information is requested by Caltrans, the CLWA will provide all required information to Caltrans' satisfaction.

RR 3.5-2 If human remains are encountered during ground-disturbing activities for any of the RWMP components, the Los Angeles County Coroner's Office shall be notified immediately, and all activities in that area must cease until lawful measures have been implemented. If the Coroner determines that the remains are prehistoric, the NAHC [Native American Heritage Commission] must also be contacted under state law. The NAHC will designate a Most Likely Descendent (MLD) who will make procedural determinations concerning disposition of the remains.

Mitigation Measures

MM 3.5-1 Prior to implementation of any RWMP component that involves ground disturbance in native soils (with the exception of the Northwest Spur Pipeline), the CLWA will arrange for the completion of a Phase I Cultural Resources Assessment by a qualified Cultural Resources Professional. The qualified Cultural Resources Professional shall meet the Secretary of the Interior's professional qualification standards (36 Code of Federal Regulations 61). The Phase I Cultural Resources Assessment for each subsequent RWMP phase may include, but not be limited, to the following tasks, per the recommendations of the Archaeologist:

- An archaeological/historical/cultural resources records search shall be conducted at the South Central Coastal Information Center (SCCIC), located at the California State University, Fullerton to identify potential impacts that may be caused by the project.

- Consultation shall occur with the Native American Heritage Commission (NAHC) in Sacramento regarding the possibility of special Native American sites that may be located in the vicinity of any project components shall be conducted. Consultation shall occur with local Native American representatives with knowledge regarding Native American sites in the project area and shall be contacted in regard to each construction phase if the qualified Cultural Resources Professional determines that there is the potential to impact Native American resources.

- A field survey by the appropriate qualified Cultural Resources Professional shall be conducted. A qualified Archaeologist shall be retained to visually examine the ground surface for evidence of prehistoric (Native American) or historic (non-Native American) archaeological materials, or other potential historic features (e.g., structures, bridges, mines, or wells), in areas where ground disturbance is proposed in native soils.

- Any identified buildings or structures that may be over 45 years of age that may be impacted by the project shall be examined by a qualified Architectural Historian and the Historian's recommendations shall be implemented accordingly. Any previously unknown resources that are identified during the surveys shall be recorded on State of California Department of Parks and Recreation 523 Forms to meet CEQA and OHP [Office of Historic Preservation] standards.

- A paleontological records search and literature review shall be conducted for each subsequent phase of the RWMP project site that will require any ground disturbance in native soils to determine if the project will have any impacts to any significant paleontological resources.

- The results of any additional Phase I Cultural Resource Studies shall be documented in a technical report prepared according to Archaeological Resource Management Report (ARMR) guidelines and OHP standards.

Any impacts that cannot be avoided shall be mitigated according to the recommendations of the Phase I Cultural Resources Assessment.

MM 3.5-2 Prior to initiation of Northwest Spur Pipeline construction activities in the vicinity of the marker for California Historical Landmark (CHL) No. 556, at the southwest corner of the intersection of The Old Road and State Route 126, temporary fencing shall be installed around the marker at a radius of no less than 20 feet in order to protect the marker from adverse effects of construction of the pipeline beneath the nearby roadway. No construction activities or storage areas shall occur within the fenced area. The fencing shall not be removed until construction activities in the vicinity of the marker for CHL No. 556 are complete.

MM 3.5-3 If potential archaeological or paleontological resources are inadvertently discovered during ground-disturbing activities for any of the RWMP components, work in that location shall be temporarily diverted and a qualified specialist (Archaeologist or Paleontologist) shall be contacted immediately to evaluate the find.

MM 3.5-4 A qualified Paleontologist shall be retained during initial ground-disturbing activities for the Northwest Spur Pipeline to determine if the proposed trenching will extend into the older, fossil-bearing Quaternary soils and to develop a monitoring program. The monitoring program shall include recovery, preparation (to a point of identification), and cataloguing of fossil materials. Any fossils that are collected shall be placed in an accredited repository for curation.

3.5.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, potentially significant impacts to cultural resources would be reduced to less-than-significant levels. Implementation of the RWMP would not create significant unavoidable adverse cultural resources impacts.

3.6 GEOLOGY AND SOILS

This section of the EIR analyzes potential geotechnical hazards that may adversely affect the proposed project or that may be exacerbated by the proposed project. Relevant information for this analysis was obtained from the Cultural Resources Assessment for the proposed project (Appendix D), the California Geological Survey, and the U.S. Department of Agriculture.

3.6.1 ENVIRONMENTAL SETTING

Topography and Stratigraphy

The CLWA service area encompasses the relatively flat-lying Santa Clarita Valley and portions of the surrounding hills and mountains. The CLWA service area is located at an elevation range of 1,000 to 3,000 feet above mean sea level. For the most part, the CLWA service area coincides with the Santa Clarita planning area and encompasses the Santa Clara River Valley, the eastern extension of the Santa Susana Mountains, the westernmost reaches of the San Gabriel Mountains, and the southern slopes of the Sierra Pelona within the east-west trending Transverse Ranges. The principal natural features of the Santa Clarita Valley include the Santa Clara River, Castaic Valley, San Francisquito Canyon, Bouquet Canyon, Placerita Canyon, and Hasley Canyon. The Santa Clara River flows west from the San Gabriel Mountains to the Santa Susana Mountains and on through Ventura County. The Santa Clara River, a shallow, multi-channel or "braided' stream of sand and silt that has been utilized for quarry material and as productive farmland, runs east to west and bisects the project area (BonTerra Consulting 2005b, Appendix D).

The geology within and adjacent to the CLWA service area consists of recent alluvial deposits underlain by a relatively thick sequence of Plio-Pleistocene Saugus Formation. Alluvial deposits refer to geologic materials deposited by running water, such as in streams, floodplains, or alluvial fans. In the project area, these alluvial deposits consist of a maximum of 200 feet of unconsolidated gravel, sand, silt and clay, which occur as relatively narrow strips that underlie and are adjacent to major stream channels. The Saugus Formation consists primarily of semi-consolidated conglomerate and sandstone materials, which reach a maximum thickness of approximately 7,000 feet. Shale and sandstone of the Miocene Castaic Formation underlie the Saugus Formation (CLWA 2004d).

Soils

The CLWA service area covers portions of three soil surveys, although the majority of the project area is within the Antelope Valley Soil Survey area. The soils in the Ventura County portion of the CLWA service area, to the west, are described in the Ventura County Soil Survey. The northeastern corner of the service area, including part of Castaic Lake, is described in the Angeles Forest Soil Survey (U.S. Department of Agriculture 2005). Soils within and adjacent to the CLWA service area typically consist of sandy silts and silty sands. Erosion is the loss of natural materials as a result of artificial or natural weathering agents, such as water and wind. The soil erosion potential is very high in many of the steep mountainous regions of the CLWA service area (CLWA 2004d).

Expansive soils shrink and swell in volume as a result of the wetting and drying of fine-grained, clay-rich sediments. Development on expansive soils can result in damage to overlying structures over a long period of time due to continued movement of soil. Although generally not prevalent, clay-rich soils within the CLWA service area may therefore be subject to expansion (CLWA 2004).

Liquefaction occurs when saturated, and generally fine grained sediments and/or soils, lose cohesive strength as a result of strong seismically induced ground shaking. Strong ground motion of such sediments causes pore water pressure in the soil to increase, thereby turning the soil from a solid to a liquid state. Liquefaction most likely occurs in areas of the CLWA service area that are saturated at very shallow depths, such as adjacent to the Santa Clara River (CLWA 2004d).

Lateral spreading is the separating or rupturing of the ground surface, generally associated with liquefaction, as a result of strong seismically induced ground shaking. Lateral spreading commonly occurs along drainage banks, cliff areas, or steep shoreline areas where generally loose sediments collapse due to a lack of lateral support. Lateral spreading would most likely occur within the CLWA service area along the banks of the Santa Clara River or its tributaries (CLWA 2004d).

Subsidence is the sinking and settling of surface sediment and commonly occurs as a result of an overdrawn water table or because of oil and gas over-development. Historic groundwater overdraft has not occurred within the Alluvial and Saugus Formation aquifers of the Santa Clarita Valley, and regional ground subsidence has not occurred. Therefore, the CLWA service area is not known to be an area of subsidence due to oil and/or gas withdrawal (CLWA 2004d).

Landslides are ground failures that are dependent upon the geology and slope of an area as well as the amount of rainfall and the potential for seismic activity. Areas most susceptible to landslides have high relief and an unstable accumulation of material. Areas least likely to have landslides are characterized by low relief, such as valleys. Due to the rugged, high relief of the foothill and mountainous areas surrounding the Santa Clarita Valley, landslides and unstable slopes are present in many areas of the CLWA service area (CLWA 2004d).

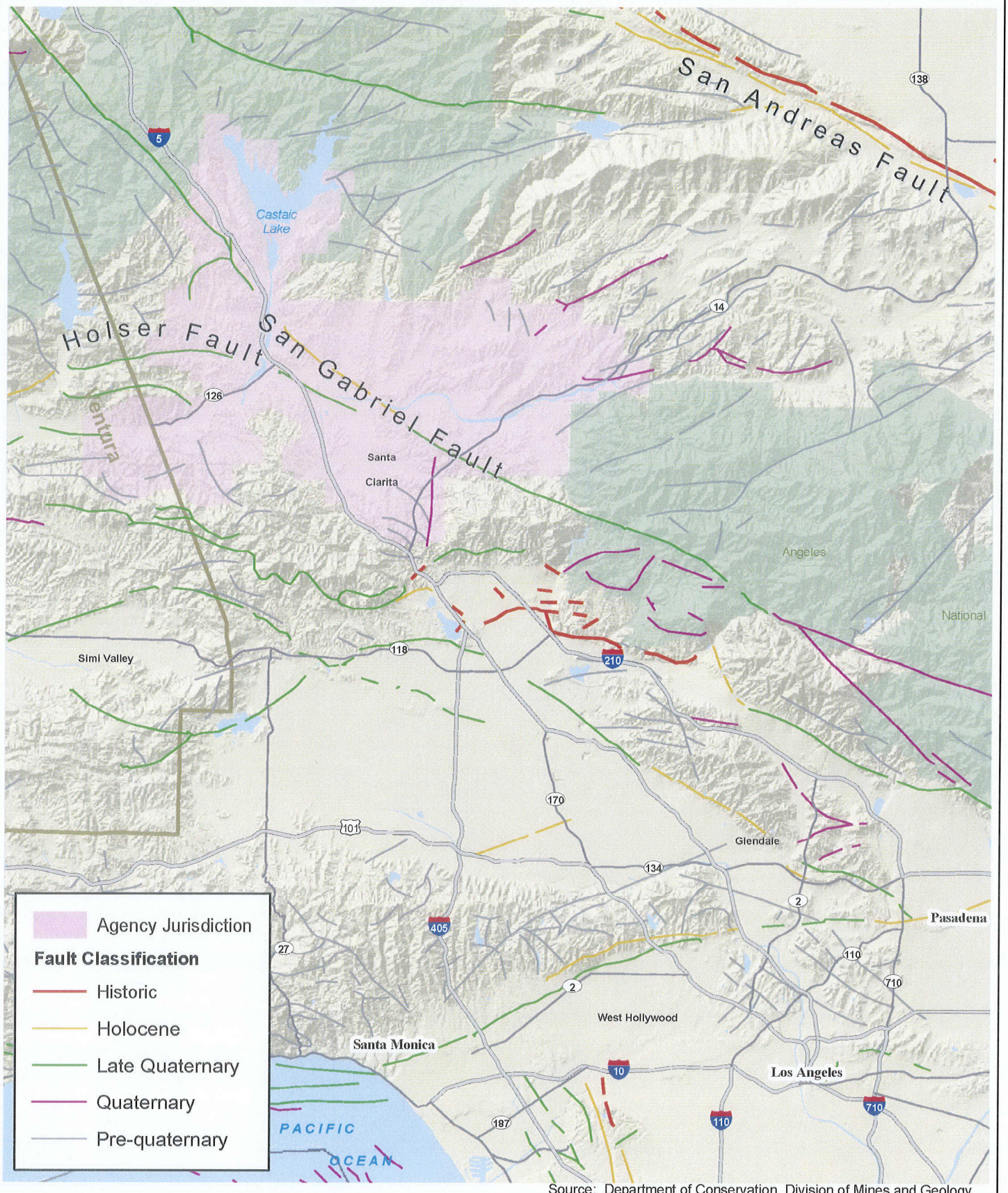
Seismicity

The majority of the State of California, including the CLWA service area, lies within Seismic Zone 4, the highest-level hazard zone designated by the current Uniform Building Code (UBC). Two faults, including the active San Gabriel fault and the potentially active Holser fault, traverse the CLWA service area, and are estimated to be capable of producing a maximum credible earthquake (MCE) of 7.5 and 7.25, respectively. The active San Andreas fault is located approximately 18 miles northeast of the central portion of the Santa Clarita Valley, and is estimated to be capable of producing an MCE of 8.25 (CLWA 2004d). Figure 3.6-1 shows the location of these fault lines and other minor faults in relation to the CLWA service area.

Regulatory Setting

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 requires the State Geologist to delineate zones along active faults in California so that structural development can be regulated to reduce the risk to humans and structures associated with seismic activity. The act prohibits the construction of structures intended for human occupancy within these zones and requires local agencies to regulate certain developments.



Source: Department of Conservation, Division of Mines and Geology

Fault Lines in CLWA Service Area

Figure 3.6-1

Castaic Lake Water Agency
Recycled Water Master Plan

5 2.5 0 5 Miles

BonTerra CONSULTING

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3.6.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to soils and geology are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

   - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
   - Strong seismic ground shaking.
   - Seismic-related ground failure, including liquefaction.
   - Landslides.

b. Result in substantial soil erosion or the loss of topsoil.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Direct Impacts

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*
- *Strong seismic ground shaking?*
- *Seismic-related ground failure, including liquefaction?*
- *Landslides?*

RWMP Components

The development of the RWMP would not expose people to risks from earthquakes, ground shaking, liquefaction, or landslides because the project does not propose to construct any habitable structures intended for human occupancy. However, the project would expose

structures to these risks. As depicted in Figure 3.6-1, the San Gabriel and Holser faults traverse the CLWA service area. There are also numerous regional faults that are capable of producing strong ground shaking, including the San Andreas Fault. Therefore, all components of the RWMP would be subject to strong, seismically induced ground shaking due to an earthquake on these and other nearby regional faults. Where these faults traverse the CLWA service area, there is also the potential for surface rupture. The Alquist-Priolo Earthquake Fault Zoning Act restricts development within a 50-foot setback from known active faults, thereby reducing the potential for impacts to structures from surface rupture to the maximum extent.

One potential adverse effect on the RWMP components from strong seismic ground shaking would be a fracture or rupture of reservoir tanks and/or associated pipelines. Although a localized fracture causing limited water flow would be more likely, the worst-case scenario of a reservoir tank rupture is considered in this analysis. A reservoir tank rupture would generate the greatest amount of water in one location in the shortest amount of time.

All proposed structures would be required to comply with the UBC Seismic Zone 4 standards. Implementation of appropriate engineering design measures as required by the UBC, the California Building Code (CBC), any local building code requirements, and recommendations by geotechnical consultants hired to analyze the siting and construction of RWMP components would minimize potential seismic ground-shaking impacts to the maximum extent practicable under current engineering practice. For critical structures (such as the reservoir tanks), stricter requirements from the California Geological Survey (CGS) that reflect local geologic and seismic conditions would be implemented to reduce the risks to the maximum extent practicable. The risk of flooding that would adversely affect persons or structures in the immediate area would be minimized by the engineering design features required in the design of all RWMP components. Additionally, the pipelines would have safety features built-in to cutoff water flow in the event of a leak, which would limit the extent of flooding from seismic hazards.

Implementation of these requirements, as specified by Regulatory Requirement 3.6-1, which requires compliance with the UBC and other applicable regulations, and Mitigation Measure 3.6-1, which requires compliance with engineering design features set forth by a qualified Geotechnical Engineer, would result in the construction of earthquake-resistant structures. However, in the event of a major seismic event, no structure is completely safe from damage. Incorporation of required seismic design criteria in project construction plans would reduce potential impacts of earthquake ground rupture and ground shaking to adverse, but less than significant, levels.

As previously stated, liquefaction is most likely to occur in areas of the CLWA service area that are saturated with water at very shallow depths, such as adjacent to the Santa Clara River or its tributaries. During earthquakes, ground shaking could cause water-saturated sediment to "liquefy", resulting in ground failure. The majority of the RWMP facilities would be in the urban core of the city beneath streets and, as such, would not be subject to liquefaction. Groundwater injection associated with aquifer storage and recovery (ASR) would not increase the risks associated with liquefaction because the recycled water would be injected a minimum of 500-feet below the surface and would not saturate soils at shallow depths. However, the distribution system's pipelines would be located in soils near the Santa Clara River or its tributaries. In rural areas where pipelines would connect to reservoir tanks, compliance with all applicable Uniform Building Code requirements and the recommendations of the geotechnical consultant, as specified in Regulatory Requirement 3.6-1 and Mitigation Measure 3.6-1, would ensure that potential impacts from liquefaction would be less than significant. As required in Mitigation Measure 3.6-1, the Geotechnical Soils Analysis Report would prevent construction of the RWMP components (e.g., water tanks) from being constructed on unstable slopes.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be subject to the same geologic and seismic hazards as the remaining RWMP components. With the incorporation of Regulatory Requirement 3.6-1 and Mitigation Measure 3.6-1, these hazards would be reduced to a less-than-significant level.

Threshold: *Would the project result in substantial soil erosion or the loss of topsoil?*

RWMP Components

Construction of the RWMP components, including pipelines, wells, reservoir tanks, and booster pump stations would involve cut-and-fill grading and/or trenching activities. Many of the structures would be constructed on relatively flat to gently sloping, previously graded topography, which would not require substantial additional grading. However, construction of the reservoir tanks may require excavation into existing hillside areas.

The largest source of erosion, particularly in an urban environment, is uncontrolled drainage over exposed slopes during construction. Project grading would result in a short-term increase in the amount of soil exposed to wind and water erosion. Impervious surfaces could concentrate water flow and potentially lead to increased erosion. An increase in erosion could result in increased sedimentation in nearby drainages and storm drains, resulting in potentially adverse impacts to water quality. Similarly, trenching would result in temporary stockpiling of soil (prior to refilling the trench) and therefore, a short-term increase in the amount of soil exposed to wind and water erosion could occur.

Erosion potential during construction would be managed to the maximum extent practicable with Best Management Practices (BMPs) as part of required compliance with the required National Pollutant Discharge Elimination System (NPDES) Construction General Permit and Storm Water Pollution Prevention Plan (SWPPP). Further descriptions of NPDES requirements and BMPs that would require implementation as part of construction and operation of the RWMP project are included in Section 3.8, Hydrology and Water Quality. Therefore, short-term erosion and sedimentation associated with grading and excavation would be less than significant with implementation of Regulatory Requirement 3.6-2, which describes the requirements of coverage under the NPDES Construction General Permit.

The construction of the RWMP project would require the removal of topsoil for reservoir tank construction and for pipeline trenching in raw land. Depending on the amount of grading required and the topography and soil conditions of the chosen sites, construction of the reservoir tanks and trenching for the pipelines could result in a substantial loss of topsoil even with implementation of standard BMPs. In order to reduce the potential impacts associated with this loss of topsoil, the majority of excavated soils from trenching or grading activities would be salvaged and placed within fill areas, as detailed in Mitigation Measure 3.6-2. Incorporation of excavated soil into the project as fill material would minimize the loss of topsoil and reduce potential impacts to a less-than-significant level.

Northwest Spur Pipeline

The majority of the Northwest Spur Pipeline would be constructed within existing roadways, which would not result in impacts involving erosion or the loss of topsoil. Construction of the portion of the Northwest Spur Pipeline located in unpaved areas (0.11 mile, near Valencia WRP) would have the potential to result in erosion and loss of topsoil, although such impacts would be minor because of the relatively small area of impact. Additionally, the excavated soil would be replaced into the pipeline trench upon project completion. There would be no soil erosion/loss of topsoil impacts associated with the construction of two of the booster pump

stations because the sites were previously graded in association with the construction of surrounding commercial development. The booster pump station located at the intersection of Henry Mayo Drive and Commerce Center Drive would require additional grading. However, the site is relatively small (approximately 1,000 square feet) and would not result in a substantial amount of erosion or loss of topsoil. As described for the remaining RWMP components, erosion-potential during construction would be managed to the maximum extent practicable with implementation of standard BMPs, and potential impacts would be less than significant.

Threshold: *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

RWMP Components

Permanent cut-and-fill slopes, such as may be required for the reservoir tanks, would be constructed in accordance with the UBC, CBC, local grading ordinances, and recommendations by geotechnical consultants hired to analyze the siting and construction of RWMP components. Excavation of cut slopes, if required, would be constructed in accordance with the California Occupational Safety and Health Agency (OSHA) and recommendations by the geotechnical consultants in order to prevent slope failure during grading and excavation activities. Incorporation of the required slope stability design criteria set forth by the Geotechnical Engineering Report, as specified in Mitigation Measure 3.6-1, would reduce the potential impacts associated with slope instability to adverse, but less than significant, levels.

Northwest Spur Pipeline

The Northwest Spur Pipeline would not be constructed on steep slopes, and would not be at risk for landslides or other hazards related to building in mountainous areas. However, this component would be subject to the same geologic hazards as the remaining RWMP components, including liquefaction in soils near the Santa Clara River. Implementation of engineering design measures, as required by applicable building codes, as set forth in Standard Condition 3.6-1, would reduce these hazards to the maximum extent and impacts would be less than significant.

Threshold: *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

RWMP Components

The use of expansive soils could result in cracking of the foundations of structures due to repeated shrinking and swelling of soils, which would be a significant impact. Prior to construction of a reservoir tank, a geotechnical analysis of soils must be performed. The Geotechnical Report would include recommendations for avoiding the effects of expansive soils, if they are determined to be present beneath any RWMP component. Implementation of the design measures recommended by the Geotechnical Engineer would reduce potential impacts from expansive soils to less than significant.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be largely constructed beneath existing roadways, which are constructed on engineered fill. This fill material is not subject to significant impacts from expansive soils. Additionally, the impervious cover of the roadway would minimize the amount of wetting and drying to which the soil was exposed, thereby minimizing opportunities for expansion. The construction of the booster pump stations would be conducted in accordance with the UBC, as described in Regulatory Requirement 3.8-3; therefore potential impacts related to expansive soils would be less than significant.

Threshold: *Would the project site have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

RWMP Components

Implementation of the RWMP would not require the construction of septic tanks or alternative systems, and therefore would have no impact related to soils that could not support the use of such waste water disposal systems.

Northwest Spur Pipeline

Implementation of the Northwest Spur Pipeline also would not require the construction of alternative wastewater systems.

Indirect Impacts

The implementation of the RWMP would not result in any indirect impacts to geology and soils. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.6.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

RR 3.8-1 *Prior to the issuance of a grading permit for construction of each of the proposed project components, the CLWA shall determine whether or not the construction activities are required to obtain coverage under the NPDES General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ) or the NPDES General Permit for Storm Water Discharges Associated with Construction Activity from Small Linear Underground Projects (Water Quality Order 2003-0007-DWQ). If the project component meets the criteria for coverage under either of these two NPDES permits, then the CLWA will be responsible for filing a Notice of Intent, an SWPPP (if applicable), and the appropriate fees to the State Water Resources Control Board, Division of Water Quality in order to obtain coverage under the applicable NPDES permit. Pursuant to the permit requirements, the CLWA shall minimize construction-related pollutants, including erosion-related sediment, in the site runoff through the implementation of Best Management Practices.* ***(Repeated from Section 3.8, Hydrology and Water Quality)***

RR 3.8-3 *The Recycled Water Master Plan shall be implemented in compliance with all applicable federal, state and local regulations, including the California Water Code, CCR Title 22, CCR Title 17, DHS [Department of Health Services} Guidelines, and the Los Angeles County Department of Health Services Cross-Connection and Water Pollution Control Program.* ***(Repeated from Section 3.8, Hydrology and Water Quality)***

Mitigation Measures

MM 3.6-1 For all RWMP phases of development, a geotechnical engineer shall be consulted to develop a Hydrogeological/Soils Analysis Report. Prior to and during construction activities for all components of the RWMP, the recommendations of the Geotechnical Consultant shall be followed. These recommendations would include component-specific design specifications for minimizing or avoiding impacts associated with strong seismic ground shaking and liquefaction, expansive soils, and any other soil instabilities.

MM 3.6-2 During construction activities, excavated topsoil shall be salvaged, stockpiled, and subsequently placed over fill areas to assist in revegetation and to minimize erosion and loss of topsoil. The use of any excavated soils must be deemed appropriate by the contracted Geotechnical Consultant for use as backfill material.

3.6.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, potentially significant impacts to geology and soils would be reduced to less-than-significant levels. Implementation of the RWMP would not create significant unavoidable adverse geology and soils impacts.

3.7 HAZARDS AND HAZARDOUS MATERIALS

This section of the EIR analyzes the potential impacts of existing environmental safety hazards that may adversely affect the proposed project or of hazards that may be introduced by the proposed project. Relevant information for this analysis was obtained from the Department of Toxic Substances Control.

3.7.1 ENVIRONMENTAL SETTING

Existing Hazardous Materials

A hazardous material is defined by the California Environmental Protection Agency (CalEPA) as a material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released (26 CCR Section 25501) (CLWA 2002b). A material is also considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency. Specific chemical and physical properties can cause a substance to be considered hazardous, including the properties of toxicity, ignitability, and reactivity. These properties are defined in California Code of Regulations, Title 22, Sections 66261.20 – 66261.24.

Common materials that are considered hazardous include fuels, motor oil, grease, various lubricants, solvents, smoldering equipment, and glues. A "hazardous waste" is any hazardous material that is discarded, abandoned, or recycled. The criteria that render a material hazardous also make a waste hazardous (CLWA 2004d).

The CLWA service area is largely urbanized with a variety of industries and commercial enterprises that likely use or produce hazardous materials and/or hazardous wastes. Fuels, chemicals, and other hazardous materials and hazardous wastes are also transported via roadways and railways. Hazardous materials and waste sites are present in the CLWA service area. Of particular note is the Whittaker-Bermite Facility, located at 22116 West Soledad Canyon in Santa Clarita. Historical operations at this former defense industrial site resulted in perchlorate soil contamination. The Whittaker Corporation is working with the Department of Toxic Substances Control (DTSC) to perform soil remediation or cleanup (DTSC 2005).

Two other sites that the DTSC is monitoring as part of their Site Mitigation and Brownfields Reuse Program in or near the CLWA service area include Space Ordnance Systems (SOS), located at 25977 Sand Canyon Road in Santa Clarita, and Lubrication Company of America, located at 125400 Lang Station Road in Canyon Country (DTSC 2005). Additionally, numerous commercial and industrial facilities are located in the CLWA service area that transport, handle, use, and dispose of hazardous materials and wastes. Since 1998, continued growth and development in the greater Santa Clarita Valley have increased the amount of hazardous materials and/or hazardous wastes that are produced and transported around the region (CLWA 2004d).

Other Hazards

The CLWA service area contains hillside areas that are classified as very high fire hazard areas (CLWA 2004d).

Regulatory Setting

Hazardous Materials

On June 20, 1998, the USEPA promulgated the Risk Management Program (RMP) rule, requiring certain facilities that handle hazardous wastes to create an RMP Plan. Its purpose is to protect the public from accidental releases. This Plan, which is available to the public, must include information about the hazards of the regulated substances at the facility and information about how the RMP helps prevent accidental releases and protects against the consequences of an accidental release. The California equivalent of the federal RMP is the California Accidental Release Prevention (CalARP) program, which replaced the California Risk Management and Prevention Program (RMPP).

The CalEPA has been granted primary responsibility by the USEPA for administering and enforcing Hazardous Materials Management Plans (HMMP). Hazardous materials, as defined by CalEPA, include the chlorine that is delivered and used as part of the RWMP project. State regulations for hazardous materials are equally or more stringent than the federal regulations. State regulations include detailed planning and management requirements to ensure that materials are properly handled, stored, used, or disposed of in a manner that reduces risks.

Hazardous Material Transport

The Hazardous Materials Transportation Act administered by the U.S. Department of Transportation governs the transport of hazardous materials. The California Department of Transportation (Caltrans) implements the federal regulations published as the Code of Federal Regulations (CFR), Title 49, known as the Hazardous Materials Transportation Act. These laws regulate the handling and transport of hazardous waste materials. The State of California, the County of Los Angeles, and local building and fire codes govern the design of facilities that will store and/or use hazardous materials.

Worker Safety

Worker safety laws protect public health in the workplace. These laws are administered and enforced by the California Occupational Safety and Health Administration (CalOSHA). The laws apply to operational activities and include all provisions for standard injury and illness prevention, construction requirements, and requirements for the handling of chemicals. Worker safety programs directly benefit public health by reducing the number of accidents and injuries that occur. Hazardous material laws also protect worker and public safety by requiring specific training, handling, transportation and storage procedures for hazardous materials.

CalOSHA's Process Safety Management Rule (PSM), which enforces the federal PSM rule under Section 29.1910.119 of the *Code of Federal Regulations*, is designed to protect the workers from accidental releases of specific hazardous substances, including liquid chlorine. Among other requirements, there are annual operating procedure reviews and certifications and periodic audits of the entire PSM program and the Risk Management program every three years.

Emergency Response

Public health is protected by numerous federal, state, and local agencies that provide emergency response services. Under the California Emergency Act, the State developed an Emergency Response Plan to coordinate emergency services provided by all government agencies. The plan is administered by the California Office of Emergency Services (OES).

OES coordinates the responses of other agencies, including the EPA, the California Highway Patrol, the regional water quality control boards, the air quality management districts, and the county disaster response offices. Local emergency response teams include the fire, police, and sheriff's departments provide most services to protect public health.

3.7.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to hazards and hazardous materials are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. Create a significant hazard to the public or the environment through reasonably foreseeable accident or upset conditions involving the release of hazardous materials into the environment.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for the people residing or working in the project area.

f. For a project within the vicinity of a private airstrip, would result in a safety hazard for the people residing or working in the project area.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Direct Impacts

Threshold: *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

RWMP Components

Hazardous waste would not be generated by operation of the RWMP project. However, operation of the RWMP project may result in the transport, use, and storage of liquid chlorine. Currently, recycled water from the Valencia WRP does not comply with Title 22 standards for disinfection of recycled water. Compliance with Title 22 disinfection requirements is a function of disinfectant concentration (chlorine) and contact time. In order to meet Title 22 requirements, chlorine would either be added to the recycled water system prior to distribution from the Valencia WRP or the point of compliance would be relocated.

Hazardous material transportation, use, and storage are regulated by many federal, state, and local laws and regulations. Various regulations also stipulate minimum standards for design, storage, spill prevention procedures, emergency response and contingency plans, risk management, and employee training. Compliance with all applicable laws and regulations, as set forth in Regulatory Requirement 3.7-1, would mitigate impacts to less-than–significant levels.

Northwest Spur Pipeline

The Northwest Spur Pipeline would carry water that has been chlorinated as part of the disinfection process. However, the concentration of chlorine in the distribution lines would not be at a level considered hazardous; therefore, no aspect of the Northwest Spur Pipeline would involve the use of hazardous materials and the proposed project would not create a hazard related to exposure to hazardous materials.

Threshold: *Would the project create a significant hazard to the public or the environment through reasonably foreseeable accident or upset conditions involving the release of hazardous materials into the environment?*

Threshold: *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste with one-quarter mile of an existing or proposed school?*

RWMP Components

As discussed above, liquid chlorine is the single hazardous material that would be used in the operation of the RWMP project. This material would have the potential to be unintentionally released into the environment during transport, unloading, or transfer into the recycled water system. Hazardous materials are transported throughout the state everyday; however, accidents involving a release of these materials are relatively rare. Additionally, depending on the location of the chlorine dispensation site and the route to access that site, the handling of the chlorine may be within one quarter mile of an existing or proposed school. However, with application of applicable safety protocols, as described in Regulatory Requirement 3.7-1, the potential risk related to the release of liquid chlorine into the environment during transportation and handling would be reduced to the maximum extent practicable and would not be considered a reasonably foreseeable condition. Potential impacts would be less than significant.

In the event of a release of recycled water from a reservoir tank or burst pipeline resulting from a seismic event, concentrations of chlorine within the distribution system would not be high enough to be considered hazardous. Therefore, impacts related to hazardous materials being released into the environment from the rupture of a RWMP component would be less than significant.

Northwest Spur Pipeline

As described above, the concentration of chlorine in the recycled water being delivered in the Northwest Spur Pipeline would not be at hazardous concentrations, and the Northwest Spur Pipeline would not emit hazardous emissions or generate hazardous waste. Therefore, schools near this component would not be adversely affected and impacts related to hazardous materials being released into the environment due to rupture of the Northwest Spur Pipeline would be less than significant. The booster pump stations are not located in the vicinity of an existing or proposed school and would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes.

Threshold: *Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?*

RWMP Components

The DTSC maintains a list of hazardous materials sites pursuant to Government Code, Section 65962.5, and this list is called the Cortese List. Based on the Cortese List, there are 72 hazardous materials sites within the County of Los Angeles; three of these are within the CLWA service area. All three sites are located on previously developed private property, and as such, would not be included within the RWMP project area (DTSC 2005). Therefore, no RWMP components would be located on a Cortese List site and there would be no impact.

Northwest Spur Pipeline

No portion of the Northwest Spur Pipeline would be located on or adjacent to any of the three Cortese list sites within the Santa Clarita area.

Threshold: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for the people residing or working in the project area?*

RWMP Components

The nearest public use airport to any RWMP component is the Agua Dulce Airpark, located at 33638 Agua Dulce Canyon Road in Santa Clarita, just to the northeast of the CLWA service area. The Federal Aviation Administration (FAA) requires review of any construction plans and specifications for development proximate to airports that exceed certain height criteria. These minimum height requirements include any construction or alteration more than 200 feet above ground level and/or a height greater than an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway (Caltrans, Aeronautics Division 2002). The tallest structures proposed in the RWMP would be the reservoir tanks, which would not be tall enough to interfere with airport operations. The operation of the RWMP system would not involve substantial night lighting, smoke-producing activities, or other facets of a project's operation that could conceivably interfere with air traffic. Therefore, the RWMP would result in no impact to air traffic safety.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be located underground, and as such, would not interfere with air traffic. The booster pump stations would be one story and would not interfere with air traffic.

Threshold: *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the project area?*

RWMP Components

The nearest private airstrip is Bohunk's Airpark, located in Lancaster approximately 40 miles to the northeast of the City of Santa Clarita. As described in the analysis above, the RWMP project would not pose a safety hazard to air traffic. For this reason and because of the considerable distance to this private airstrip, there would be no impacts related to air traffic safety.

Northwest Spur Pipeline

The Northwest Spur Pipeline would be located underground, and as such, would not interfere with air traffic. The booster pump stations would be one story and would not interfere with air traffic.

Threshold: *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

RWMP Components

Proposed pipelines would be located in roadway easements; therefore, construction of the pipelines could temporarily impact traffic conditions. However, as discussed in Section 3.15, Traffic and Transportation, the CLWA will develop a traffic control plan as mitigation for all construction projects that could impact traffic. Therefore, with implementation of Mitigation Measure 3.7-1, potential impacts related to emergency response and evacuation plans would be less than significant.

Operation of the RWMP project would not impair implementation or physically interfere with any emergency response plan for the City of Santa Clarita or surrounding communities served by the CLWA. The RWMP project consists of infrastructure components, which, when installed, would not interfere with traffic flow or otherwise hamper emergency response or evacuation plans. Periodic maintenance of components would be performed by vehicles traveling on surface roads to the RWMP facilities. The size and number of such vehicles present at facilities as required for routine maintenance also would not interfere with traffic flow.

Northwest Spur Pipeline

Construction of the Northwest Spur Pipeline could temporarily interfere with traffic flow or otherwise impair implementation of any emergency response plan, as discussed for the remaining RWMP components. With implementation of Mitigation Measure 3.15-1 (from Section 3.15, Transportation/Traffic), which requires the preparation, approval and implementation of a Traffic Control Plan, potential impacts related to emergency response and evacuation plans would be less than significant. Construction and operation of the Northwest Spur Pipeline would not interfere with an adopted emergency evacuation plan because construction/operation activities would not impede traffic or access to property.

Threshold: *Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

RWMP Components

As described, portions of the Santa Clarita Valley contain mountainous areas that are classified as high fire areas. The majority of the RWMP components would be located in existing urban areas; however, some facilities may be constructed in hillside areas adjacent to naturally vegetated areas. For instance, construction of aboveground steel reservoir tanks requires welding to assemble and secure the structure. Construction activities within these areas may increase fire danger due to the use of welding torches or other tools. The use of flames/sparks in hillside brushy areas would increase the risk of wildfire. With incorporation of Mitigation Measure 3.7-1, which involves removal of flammable weeds and accessibility of firefighting equipment, potential impacts would be less than significant.

Operation of the RWMP project would not exacerbate the potential for wildfires, which is an existing hazard. There are no ignitable materials or processes that would have the potential to create a fire. Therefore, there would be no impact related to exposing people or structures to adverse effects from wildfires.

Northwest Spur Pipeline

The Northwest Spur Pipeline would not contribute ignitable materials or processes that would have the potential to create a fire. The booster pump stations would be located on graded pads with no immediately adjacent vegetation. A block wall would surround the pump facilities. The future commercial development that would surround two of the booster pump station sites would further minimize potential wildfire threats, while the third site is located between three major roadways. Therefore, there impact related to exposing people or structures to adverse effects from wildfires would be less than significant.

Indirect Impacts

The implementation of the RWMP would not result in any indirect impacts involving hazards or hazardous materials. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.7.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

RR 3.7-1 The CLWA shall comply with all applicable federal, state, and local regulations pertaining to the handling, use, and disposal of hazardous substances as well as all applicable mandates that require the development and implementation of hazardous material-related plans (e.g., Business Plans, Emergency Response Plans, Risk Management Plans, Hazardous Waste Management Plans, Injury and Illness Prevention Plans). The project may require various plans to be modified in order to accommodate the risks associated with new hazardous materials and facilities that would be prepared in accordance with applicable regulations. Any applicable hazardous waste materials shall be transported by a properly licensed Hazardous Waste Hauler, who must be in compliance with the Department of Transportation regulations under Title 49 CFR 171–179 and under 40 CFR 263 (Subtitle C of RCRA [Resource Conservation and Recovery Act]).

Mitigation Measures

MM 3.15-1 Prior to construction activities for any phase of the RWMP that would require the diversion of traffic, the CLWA shall prepare a Traffic Control Plan and implement construction zone traffic control measures in compliance with the Work Area Traffic Control Handbook (WATCH) Manual or Manual on Uniform Traffic Control Devices (MUTCD) standards. If project construction requires special measures outside the WATCH Manual or MUTCD standards, then the Traffic Control Plan shall be prepared by, stamped, and signed by a registered Traffic Engineer. ***(Repeated from Section 3.15-1 Transportation/Traffic)***

MM 3.7-1 Prior to commencement of construction activities within designated High Fire Hazard Zones, the Fire Department shall be contacted regarding weed/brush removal in the project vicinity. All flammable weeds/brush within a radius specified by the Fire Department shall be removed. During construction activities, the project site shall be equipped with fire-fighting equipment, such as fire extinguishers, to the satisfaction of the Fire Department.

3.7.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, potentially significant impacts regarding hazards and hazardous materials would be reduced to less-than-significant levels. Implementation of the RWMP would not create significant unavoidable adverse impacts.

3.8 HYDROLOGY AND WATER QUALITY

This section of the EIR analyzes the potential impacts to drainage patterns, surface and groundwater quality, and availability of sufficient water supply in the CLWA service area that could result from implementation of the proposed project. The analysis is based on information provided by applicable federal, state, and local regulations.

3.8.1 EXISTING CONDITIONS

Regulatory Setting

Clean Water Act

The Water Pollution Control Act of 1948, now known as the Clean Water Act (CWA), established regulations for reducing pollution in interstate waters. Since 1948, the original statute has been amended extensively; most notably in 1972 with Section 402, which established the National Pollutant Discharge Elimination System (NPDES). The NPDES is administered by the U.S. Environmental Protection Agency (USEPA), which issues permits for the discharge of any pollutant from a point source into the waters of the United States. The CWA was again amended in 1987 to require that non-point sources of pollutants (i.e., stormwater discharges) would be subject to the NPDES permit requirements. Therefore, all Municipal Separate Storm Sewer System (MS4) operators must be regulated by an NPDES permit. MS4s are systems that are designed to convey stormwater flow, (such as from roads with drainage systems, municipal streets, catch basins, curbs, gutters, and storm drains), and are owned and operated by a public entity.

In addition, the CWA requires that states adopt water quality standards for water bodies and have those standards approved by the EPA. The State Water Resources Control Board, through its nine Regional Water Quality Control Boards, regulates water quality pursuant to the CWA. In California, water quality standards consist of designated beneficial uses for a particular water body and are stated in Basin Plans, along with water quality criteria necessary to support those uses. Water bodies not meeting water quality standards are deemed "impaired" under CWA Section 303(d). All impaired water bodies are placed on the "303(d) List" for which a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants that a water body may receive without exceeding applicable water quality.

NPDES General Construction Permit

The State Water Resources Control Board (SWRCB), Division of Water Quality issues an NPDES Stormwater Permit for general construction activities. The Los Angeles Regional Water Quality Control Board (LARWQCB) enforces the NPDES program for the State of California within its jurisdiction (including Los Angeles and Ventura counties), which includes the CLWA service area. Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit 99-08-DWQ). Coverage under the Construction General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and by preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) prior to grading. The primary objective of the SWPPP is to identify, construct, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in stormwater discharges from the construction site. The SWPPP must include BMPs the discharger will use to protect storm water runoff during construction and the placement of those BMPs. Additionally, an SWPPP must include a site map, a visual monitoring program, and a chemical monitoring program for "non-visible" pollutants to be implemented if there is failure of a BMP.

California Toxics Rule

The USEPA has developed numeric water quality regulations for priority toxic pollutants to be applied to the waters in the State of California. The California Toxics Rule (CTR) provides federal criteria for water quality that is legally applicable to California's inland surface waters, enclosed bays, and estuaries for all purposes under the Clean Water Act (USEPA 2005b). CTR regulations may occur through the issuance of NPDES permits, waste discharge requirements (WDRs), or other regulatory approaches. The goal of the CTR is to establish a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency (USEPA 2005b).

Basin Water Quality Plan

The SWRCB delegates to the various RWQCBs the responsibility for protection of water quality in watershed basins throughout the state. The Los Angeles RWQCB Basin Water Quality Plan (Basin Plan) is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (1) designates beneficial uses for surface and ground waters; (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and to conform to the state's anti-degradation policy; and (3) describes implementation programs to protect all waters in the Region. The Basin Plan incorporates by reference all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Table 3.8-1 lists the beneficial uses of the Santa Clara River as specified in the Basin Plan.

TABLE 3.8-1
BENEFICIAL USES OF THE SANTA CLARA RIVER

Beneficial Uses		Santa Clara River
MUN	Municipal and domestic supply	P
IND	Industrial service supply	E
PROC	Industrial process supply	E
AGR	Agricultural supply	E
GWR	Groundwater recharge	E
FRSH	Freshwater replenishment	E
REC-1	Water contact recreation	E
REC-2	Non-contact water recreation	E
WARM	Warm freshwater habitat	E
WILD	Wildlife habitat	E
RARE	Rare, threatened, or endangered species	E
MIGR	Migration of aquatic organisms	E
WET	Wetland habitat	E

E – Existing beneficial use
P – Potential beneficial use
Source: Basin Plan, Los Angeles Regional Water Quality Control Board2006 (Table 2-1)

The CLWA service area contains most of the East Santa Clara Groundwater Subbasin, which, according to the Basin Plan, has the following beneficial uses: municipal and domestic supply (MUN), industrial service supply (IND), industrial process supply (PROC), and agricultural supply (AGR).

Recycled Water Requirements

The production, discharge, distribution, and use of recycled water are subject to federal, state, and local regulations. There are additional regulations that are relevant to oil-field produced water and aquifer storage and recovery (ASR). These issues are discussed in detail in Section 5 of the RWMP. A brief listing of the regulations is presented below.

Federal Requirements

- Clean Water Act (NPDES program administered by the State of California)
- Safe Drinking Water Act (administered by the State of California)

State Requirements

- Water Code— contains requirements for the production, discharge, and use of recycled water
- Title 22— establishes the quality and/or treatment processes required for an effluent to be used for a non-potable application
- Title 17— protects drinking water supplies through control of cross-connections with potential contaminants, including recycled water supplies
- DHS Guidelines— contains guidelines for the production, distribution, cross connection control, and retrofit of facilities for recycled water

Local Requirements

- Los Angeles County Department of Health Services (DHS) Cross-Connection and Water Pollution Control Program

Title 22— California Water Code

In 1975, Title 22 was prepared by DHS in accordance with the requirements of Division 7, Chapter 7 of the *California Water Code*. In 1978, Title 22 was revised to conform with the 1977 amendment to the federal Clean Water Act. The requirements of Title 22, as revised in 1978, 1990 and 2001, regulate the production and use of recycled water in California. Title 22 requirements are summarized in Figure 3.8-1. In addition to recycled water uses and treatment requirements, Title 22 addresses sampling and analysis requirements at the treatment plant, preparation of an engineering report prior to production or use of recycled water, general treatment design requirements, reliability requirements, and alternative methods of treatment.

Federal Antidegradation Policy

The first federal Antidegradation Policy was released in 1968 and was included in the USEPA's first Water Quality Standards Regulation. The federal Antidegradation Policy represents a three-tiered approach to maintaining and protecting water quality. First, all existing beneficial uses and levels of water quality necessary to protect those uses must be preserved and protected from degradation. Second, water quality must be protected in areas where the quality cannot support the propagation of fish, shellfish, and wildlife and recreation ("fishable/ swimmable"). Third, the policy provides special protection of waters for which the ordinary water quality criteria are not sufficient. These waters are called "Outstanding National Resources Waters" and have been designated as unique or ecologically sensitive.

Title 22, Article 3 - Uses of Recycled Water

Irrigation Section 60304

(Par. a)
- Food Crops (contact w/edible portion)
- Parks & Playgrounds
- School Yards
- Residential Landscaping
- Unrestricted Access Golf Courses

→ Disinfected Tertiary Recycled Water

→ Filtered
- Oxidized Wastewater[1/]
  - Coagulated
  - Filtered 5 gpm/sf
  - Turbidity - 2 NTU Average
  - 5 NTU (5%), 10 NTU Max.
  - OR
  - Ultra, Nano, or RO, Membrane
  - Turbidity not-to-exceed 0.2 NTU 5% w/i 24 hours, 0.5 NTU Max.

→ Disinfected (after filtration)
- CT 450 mg-min/L w/90 min. Modal Contact
- OR
- 5-log Virus
- AND
- 2.2 MPN/100 ml, 7-Day Median
- 240 MNP/100 ml Max.

(Par. b)
- Food Crops (not in contact w/edible portion)

→ Disinfected Secondary - 23 Recycled Water

→ Oxidized & Disinfected[1/]
- 2.2 MPN/100 ml, 7-Day Median
- 23 MPN/100 ml Max.

(Par. c)
- Cemeteries
- Freeway Landscape
- Restricted Access Golf Courses
- Nursery Stock & Sod, not restricted
- Pasture - Animal Producing Milk
- Non-Edible Vegetation Areas not used for Recreation

→ Disinfected Secondary - 23 Recycled Water

→ Oxidized & Disinfected[1/]
- 23 MPN/100 ml, 7-Day Median
- 240 MPN/100 ml Max.

(Par. d)
- Orchards
- Vineyards
- Non-Food Bearing Trees
- Fodder, Fiber Crops and Pasture
- Seed Crops (no human consumption)
- Food Crops (with pathogen destroying process-human consumption)
- Nursery Stock and Sod Farms (restricted)

→ Undisinfected Secondary Recycled Water

→ Oxidized Wastewater[1/]

Impoundments [2/] Section 60305

(Par. a)
- Non-restricted Recreational Impoundments

→ Disinfected Tertiary Recycled Water With Conventional Treatment

→ Sedimentation Between Coagulation & Filtration Processes

→ Filtered
- Oxidized Wastewater*
  - Coagulated
  - Filtered 5 gpm/sf
  - Turbidity - 2 NTU Average
  - 5 NTU (5%), 10 NTU Max.
  - OR
  - Ultra, Nano, or RO, Membrane
  - Turbidity not-to-exceed 0.2 NTU 5% w/i 24 hours, 0.5 NTU Max.

(Par. b)

→ Disinfected Tertiary Recycled Water Without Conventional Treatment

→ Giardia, Virus & Crypto Monitoring & Reporting

→ Disinfected after Filtration
- CT 450 mg-min/L w/90 min, Modal Contact
- OR
- 5-log Virus
- AND
- 2.2 MPN/100 ml, 7-Day Median
- 240 MNP/100 ml Max.

Cooling Section 60306

(Par. a)
- Cooling Towers
- Evap. Condensers
- Spraying
- Other Mist Devices

→ Disinfected Tertiary Recycled Water

(Par. b)
- Cooling & Air Conditioning - No Mist

→ Disinfected Secondary - 23 Recycled Water

→ Oxidized & Disinfected*
- 23 MPN/100 ml, 7-Day Median
- 240 MPN/100 ml Max.

Other Purposes Section 60307

(Par. b)
- Boiler Feed
- Non-struct Firefighting
- Backfill - Non-potable Piping
- Soil Compact
- Mixing Concrete
- Dust Control
- Washdown

(Par. a)
- Flushing Toilets & Urinals
- Priming Drain Traps
- Industrial Process Water
- Structural Fire Fighting
- Decorative Fountains
- Commercial Laundries
- Backfill - Potable Water Lines
- Snow Making
- Car Washes

→ Disinfection Tertiary Recycled Water

→ Coagulant not required if Influent does not exceed 5 NTU plus backup

Regulation Section

Recycled Water Use

Level of Treatment

Water Quality Requirements

[1/] Organic matter has been stabilized and contains dissolved oxygen that is non-putrescible and contains dissolved oxygen.

[2/] Recycled water as a source of supply for landscape improvements that do not utilize decorative fountains shall be at least disinfected secondary-23 recycled water.

Kennedy/Jenks Consultants

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Source: 2002 Draft Recycled Water Master Plan

Title 22, Article 3– Uses of Recycled Water

Recycled Water Master Plan

Figure 3.8-1

BonTerra CONSULTING

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If an activity is going to be allowed to degrade or lower water quality, the federal Antidegradation Policy requires the following (NCRWQCB 2004):

- The activity is necessary to accommodate important economic or social development in the area.
- Water quality is adequate to protect and fully maintain existing beneficial uses fully.
- The highest statutory and regulatory requirements and best management practices for pollution control are achieved.

State Antidegradation Policy

Under the State's Antidegradation Policy, as set forth in SWRCB Resolution No. 68-16, whenever the existing quality of waters is better that what is needed to protect present and future beneficial uses, such existing quality must be maintained. This state policy has been adopted as a water quality objective in all the State's Regional Water Quality Control Plans. (Basin Plans). The state policy establishes a two-step process to determine if discharges with the potential to degrade the water quality of surface or groundwater will be allowed. The first step requires that where a discharge will degrade high-quality water, the discharge may be allowed only if any change in water quality would result in the following (NCRWQCB 2004):

- Be consistent with the maximum benefit to the people of the state.
- Not unreasonably affect present and anticipated beneficial uses of such water.
- Not result in water quality less than that prescribed in state policies (i.e. Water Quality Control Plans).

The second step states that any activity that results in discharge to high-quality waters is required to use the best practicable treatment or control of the discharge necessary in order to avoid the occurrence of pollution or nuisance and to maintain the "highest water quality consistent with the maximum benefit to the people of the state." The state policy applies to both surface and groundwater and to both existing and potential beneficial uses of the applicable waters.

Incidental Runoff of Recycled Water

On February 24, 2004, the SWRCB Executive Office issued a memorandum that detailed the staff's recommendations regarding the regulatory management of incidental runoff. Incidental runoff refers to small amounts of runoff from intended recycled water use areas, over-spray from sprinklers that drift out of the intended use area, and storm overflow of ponds that contain recycled water.

The SWRCB states that in order to further the goal of maximizing the use of recycled water, the water quality laws should be interpreted in a manner that is consistent with the intent of the State Legislature, which is to promote recycled water use. Consequently, incidental runoff from recycled water projects should be handled as follows (SWRCB 2004a):

1. Where reclamation requirements prohibit the discharge of waste to waters of the State and discharges are not expected to occur, occasional runoff should not trigger the need for either an individual NPDES permit or enforcement action.

2. If discharges from a reclamation project area occur routinely, such discharges can be regulated under a municipal storm water NPDES permit in most cases.

3. In limited cases, where necessary to address a water quality concern, discharges of recycled water to surface waters may be regulated under an individual NPDES permit. An NPDES permit, however, should not be issued unless necessary to achieve water quality objectives.

The SWRCB recommends that the Regional Boards should include the following language in water recycling requirements for incidental runoff associated with irrigation (SWRCB 2004a):

> The incidental discharge of recycled water to waters of the State is not a violation of these requirements if the incidental discharge does not unreasonably affect the beneficial uses of the water, and does not result in exceeding an applicable water quality objective in receiving water.

Relevant NPDES Permits

Valencia WRP Effluent and Discharge Requirements

The Valencia WRP will be the main source of recycled water for the RWMP. The Valencia WRP is one of eleven publicly owned treatment works (POTWs) owned and operated by LACSD. The plant has a dry weather average design capacity of 21.6 million gallons per day (mgd) of tertiary treated municipal wastewater; the Valencia WRP discharges tertiary effluent to the Santa Clara River. Flow to the WRP consists of domestic, commercial, and industrial wastewater. In 2002, industrial wastewater represented only approximately 2.4 percent of the total flow to the WRP (LACSD 2003a).

The treatment system at the Valencia WRP currently consists of comminution, grit removal, primary sedimentation, nitrification/denitrification (NDN), activated sludge biological treatment, secondary clarification, inert media filtration, chlorination, and dechlorination. The plant also provides flow equalization of primary effluent. Waste-activated sludge is concentrated by dissolved air flotation, is blended with primary sludge, and is anaerobically digested. The digested solids are thickened using a filter press. Dried solids are trucked away off site either to a landfill or to a site for land application (LACSD 2003a).

Valencia WRP NPDES Permit No. CA0054216

LACSD discharges tertiary-treated wastewater from its Valencia WRP under the waste discharge requirements contained in Order No. R4-2003-0145, which was adopted by the RWQCB on November 11, 2003. Order No. R4-2003-0145 also serves as a permit under the NPDES No. CA0054216, which regulates the discharge of treated wastewater to the Santa Clara River. Details regarding the LACSD laboratories, quality assurance activities, wastewater monitoring data methodology, permit limits, performance goals, and long-term wastewater monitoring summaries are included in the LACSD's Annual Monitoring Reports.

NPDES waste discharge requirements include over 8,000 numeric limitations that must be met each year based on the quantitative results of final effluent and receiving water sampling and analysis. A summary of compliance with the NPDES permit requirements from 2000 through 2004 is presented in Table 3.8-2.

TABLE 3.8-2
VALENCIA WRP COMPLIANCE WITH NPDES PERMIT REQUIREMENTS

Year	NPDES Compliance	Limit Exceedance
2000	100%	None
2001	100%	None
2002	Greater than 99%	Avg. turbidity limit exceedance and cyanide exceedance
2003	Greater than 99%	Cyanide exceedance, nitrate/nitrite exceedance
2004	Greater than 99%	Cyanide exceedance

Source: LACSD 2000, 2001, 2002, 2003a, and 2004a

As shown in Table 3.8-2 above, the Valencia WRP has exceeded the limitation requirements for cyanide at least once in the years 2002, 2003, and 2004. As described in the Annual Monitoring Report for 2004, the LACSD has expressed concerns to the RWQCB that the measured cyanide concentrations may be impacted by interferences associated with the analytical technique. Additionally, because cyanide is currently believed to be a chlorination byproduct, the LACSD is investigating ultraviolet (UV) radiation as an alternative means of disinfection. Additional studies are also being conducted to determine formation and destruction of cyanide in the treatment process.

In addition, the Valencia WRP facilities were upgraded in summer 2003 to provide full NDN to remove nitrogen. The Valencia WRP has consistently produced treated effluent that meets NPDES permit requirements.

Valencia WRP Water Reclamation and Monitoring and Reporting Requirements

The water reclamation requirements for the Valencia WRP are contained in Board Order No. 87-48 adopted April 27, 1987, by the LARWQCB. These requirements were readopted on May 12, 1997, in Board Order No. 97-072. The monitoring and reporting requirements for the Valencia WRP are contained in Monitoring and Reporting Program No. 6186, revised April 27, 1987, by order of the RWQCB Executive Officer.

On August 1, 2003, the CLWA began receiving recycled water from the Valencia WRP for irrigation of the 96-acre Tournament Players Golf Course in the Westridge development and other landscaping needs as outlined in the CLWA Water Reuse Project Phase I Engineering Report, dated February 2002. Recycled water delivered in August 2003 was used to hydrostatically test the recycled water storage tank. Beginning the second week of September 2003, the recycled water was used to irrigate the 96-acre golf course. During the latter months of 2003, a total of 16.19 million gallons (MG) (49.7 acre-feet (af)) of recycled water was used at this site. There were no violations of the water reclamation requirements during 2003 (LACSD 2003a).

During 2004, a total of 136 MG (417.4 af) of recycled water was used to irrigate the 96-acre golf course in the Westridge development. There were no violations of the water reclamation requirements during 2004 (LACSD 2004a).

Shangri La NPDES Permit Requirements

The Shangri La groundwater management system pump station (PS#2) has an NPDES Permit No. CA0061638 held by the City of Santa Clarita, which was issued in June 1990 and was renewed in September 1996 with interim limits for chloride and total dissolved solids (TDS). The permit allows PS#2 to discharge pumped groundwater to the Santa Clara River.

The permit was again renewed in July 2003 with interim limits for the California Toxics Rule parameters and a Time Schedule Order (TSO) for chloride, TDS, sulfate, and nitrate. The interim limits for the CTR parameters expire in June 2006 and the TSO limits expire in 2008. Table 3.8-3 presents the interim and final effluent limits for the PS#2 discharges.

TABLE 3.8-3
INTERIM AND FINAL EFFLUENT LIMITS FOR PUMP STATION #2

Constituents	Interim Effluent Limits	Final Effluent Limits
Total Dissolved Solids (TDS)	1,500 mg/L	800 mg/L
Chloride	250 mg/L	100 mg/L
Sulfate (SO_4)	190 mg/L	150 mg/L
Nitrate as Nitrogen (NO_3)	12 mg/L	5 mg/L
Copper	259 µg/L	12.2 µg/L
Lead	34 µg/L	12.6 µg/L
Mercury	0.14 µg/L	0.05 µg/L
Source: City of Santa Clarita 2004		

Since January 1993, groundwater from PS#2 has consistently been in compliance with the interim CTR limits for TDS, NO_3, copper, and mercury. Since January 1993, PS#2 has been in violation of these limits two times or fewer for chloride, SO_4, and lead. The City's primary option for achieving final effluent limits for PS#2 discharges by 2008 is to connect into the CLWA Recycled Water Master Plan system (City of Santa Clarita 2004).

Magic Mountain Amusement Park NPDES Requirements

Six Flags Theme Parks, Inc. (SFTP) operates Six Flags Magic Mountain amusement park in Valencia. Amusement park operations result in discharges to the Santa Clara River from pond drainage, overflow midway washdown irrigation runoff, and storm water runoff. These discharges were regulated under WDRs and an NPDES permit (NPDES Permit No.CA 0003352) which expired on January 10, 2003. In April 2005, the RWQCB released the tentative WDRs for public comment, which serve as the NPDES permit for the amusement park. The WDRs and NPDES permit were adopted by the Regional Board in June 2005.

In the RWQCB's review of SFTP's compliance history, exceedances were noted primarily for chloride, residual chlorine, lead, total dissolved solids, total suspended solids, and settleable solids. Other one-time exceedances were also noted. Of the exceedances, the most problematic are chloride (which is caused by chloride in the water supply), the addition of chlorine for disinfection, the evaporation of water and subsequent concentration of chloride in the operation of the water rides, and residual chlorine (from chlorine in the water supply and the addition of chlorine for disinfection). To address these exceedances, SFTP is evaluating ways to manage and control the turnover rate in the water rides in order that the water meets the RWQCB's water reclamation criteria. This approach could also provide an additional source of recycled water for the CLWA.

Santa Clara River Watershed Hydrology

The Upper Santa Clara River Hydrologic Area, as defined by the California Department of Water Resources (DWR) Bulletin 118, is located almost entirely within northwestern Los Angeles County. The area encompasses approximately 654 square miles comprised of some flat valley areas, but is largely comprised of hills and mountains that border the valley area. The mountains include the Santa Susana and San Gabriel Mountains to the south and the Sierra

Pelona and Leibre-Sawmill Mountains to the north. The headwaters of the Santa Clara River are at an elevation of approximately 3,200 feet at the divide that separates this hydrologic area from the Mojave Desert (CLWA 2004c).

The Santa Clara River and its tributaries flow intermittently from Lang Station westward approximately 35 miles to Blue Cut, just west of the Los Angeles–Ventura County line, where it forms the outlet for the Upper Santa Clara River Hydrologic Area. The principal tributaries of the upper river include Castaic Creek, San Francisquito Creek, Bouquet Creek, and the South Fork of the Santa Clara River. The Santa Clara River traverses the Santa Clarita Valley from east to west. Below Blue Cut, the river continues westward through Ventura County to its outflow into the Pacific Ocean near the City of Oxnard. Figure 3.8-2 depicts the Santa Clara River Watershed.

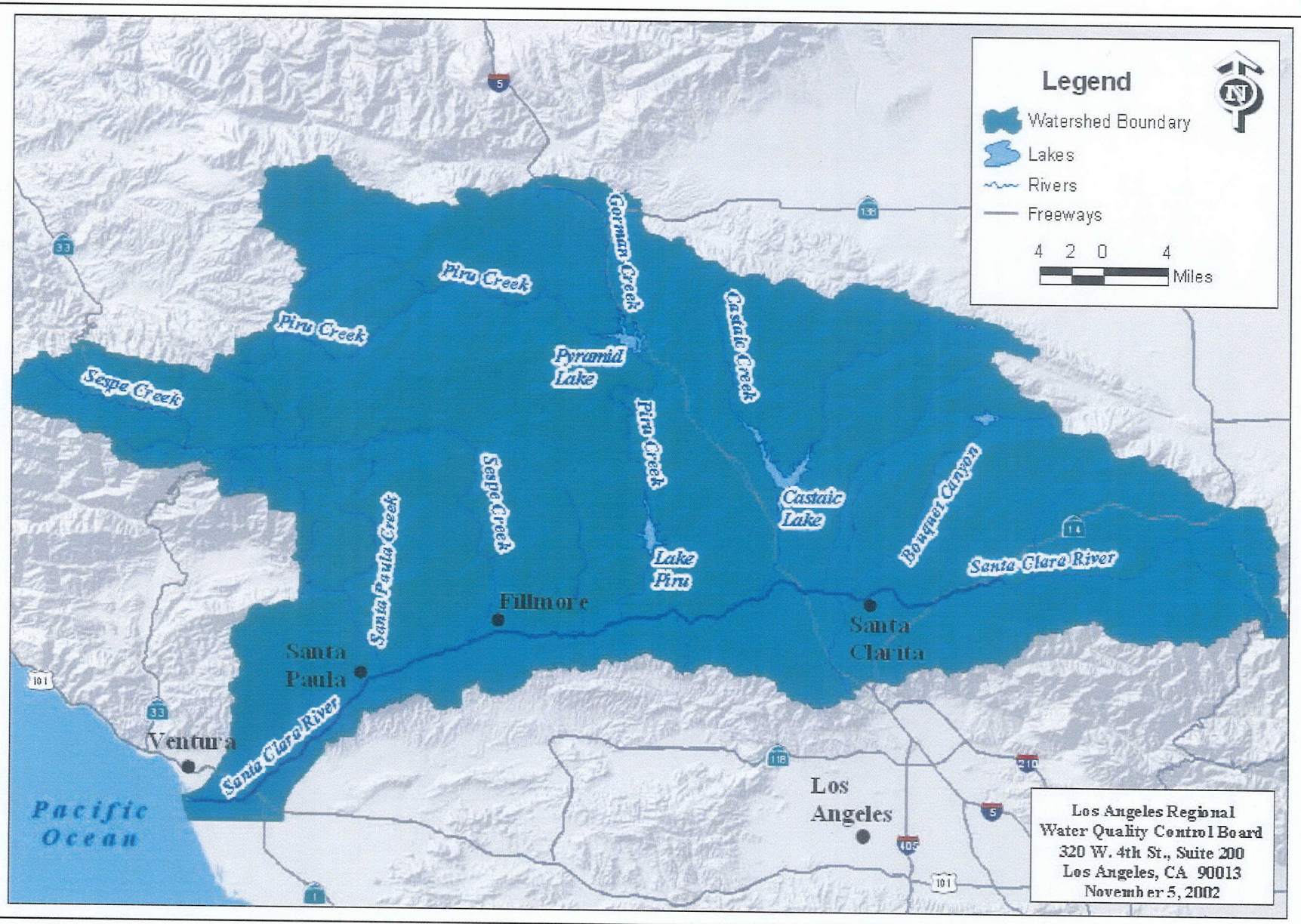
Additionally, the Santa Clara River receives treated wastewater discharges from the Saugus and Valencia WRPs, which are owned and operated by the LACSD. The hydrology of the river varies greatly depending on location. Downstream of the Valencia WRP, the Santa Clara River has perennial flow due to WRP effluent discharges, rising groundwater and intermittent water releases from Castaic Lake, which then continues to, at least, the Los Angeles–Ventura County line.

The Valencia and Saugus WRPs contribute to the river flow year-round. In summer months, it appears that the effluent from the Saugus WRP comprises a significant portion of the river flow between the Saugus WRP and the County of Los Angeles Department of Public Works flow gauging station F92. Based on available data provided by the County of Los Angeles Department of Public Works, LACSD and USGS, combined effluent flows from both treatment facilities contribute more than 90 percent of the total river flow from August through September. Table 3.8-4 presents the amount of the Santa Clara River flow that is composed of effluent from the 2 WRPs.

TABLE 3.8-4
PERCENTAGE OF CURRENT RIVER FLOW AS EFFLUENT
YEAR 2000

Month	2000 Valencia WRP Flow (mgd)	2000 Saugus WRP Flow (mgd)	Sum of Saugus and Valencia WRP Flow	Total River Flow from USGS Stations (mgd)[a]	Effluent Percent of Total Flow
January	10.62	5.19	15.81	106.79	15%
February	10.74	5.47	16.21	242.63	7%
March	10.80	5.27	16.07	122.69	13%
April	11.02	5.32	16.34	57.15	29%
May	11.21	5.29	16.5	63.18	26%
June	11.69	5.17	16.86	28.95	58%
July	12.08	4.81	16.89	19.53	86%
August	11.98	5.35	17.33	18.58	93%
September	10.95	6.36	17.31	18.50	94%
October	11.31	5.84	17.15	21.21	81%
November	11.21	5.58	16.79	22.49	75%
December	10.62	6.26	16.88	37.37	45%

Notes:
(a) River flow measured from USGS Stations 11108500 and 1110900. This flow includes agricultural runoff, rising groundwater, and tributary flows. These stations are located at the westernmost edge of Reach 5.
Source: CLWA 2002a, LACSD 2005



Santa Clara River Watershed

Figure 3.8-2

CLWA Recycled Water Master Plan

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Source: Los Angeles Regional Water Quality Control Board, November 5, 2002

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Santa Clara River Groundwater Basin

Groundwater in the Santa Clara River Valley, called the Eastern Santa Clara Subbasin, occurs in two aquifer systems: the Alluvial Aquifer (associated with the Santa Clara River and its tributaries) and the deeper Saugus Formation. There are some scattered outcrops of Terrace deposits in the basin which likely have the capacity to contain limited amounts of groundwater; however, since these deposits are located in limited areas that are situated at elevations above the regional water table and are also of limited thickness, they are of no practical significance as aquifers and have consequently not been developed for water supply (CLWA 2003). Figure 3.8-3 depicts the Eastern Santa Clara Subbasin's location within the CLWA service area.

Alluvial Aquifer

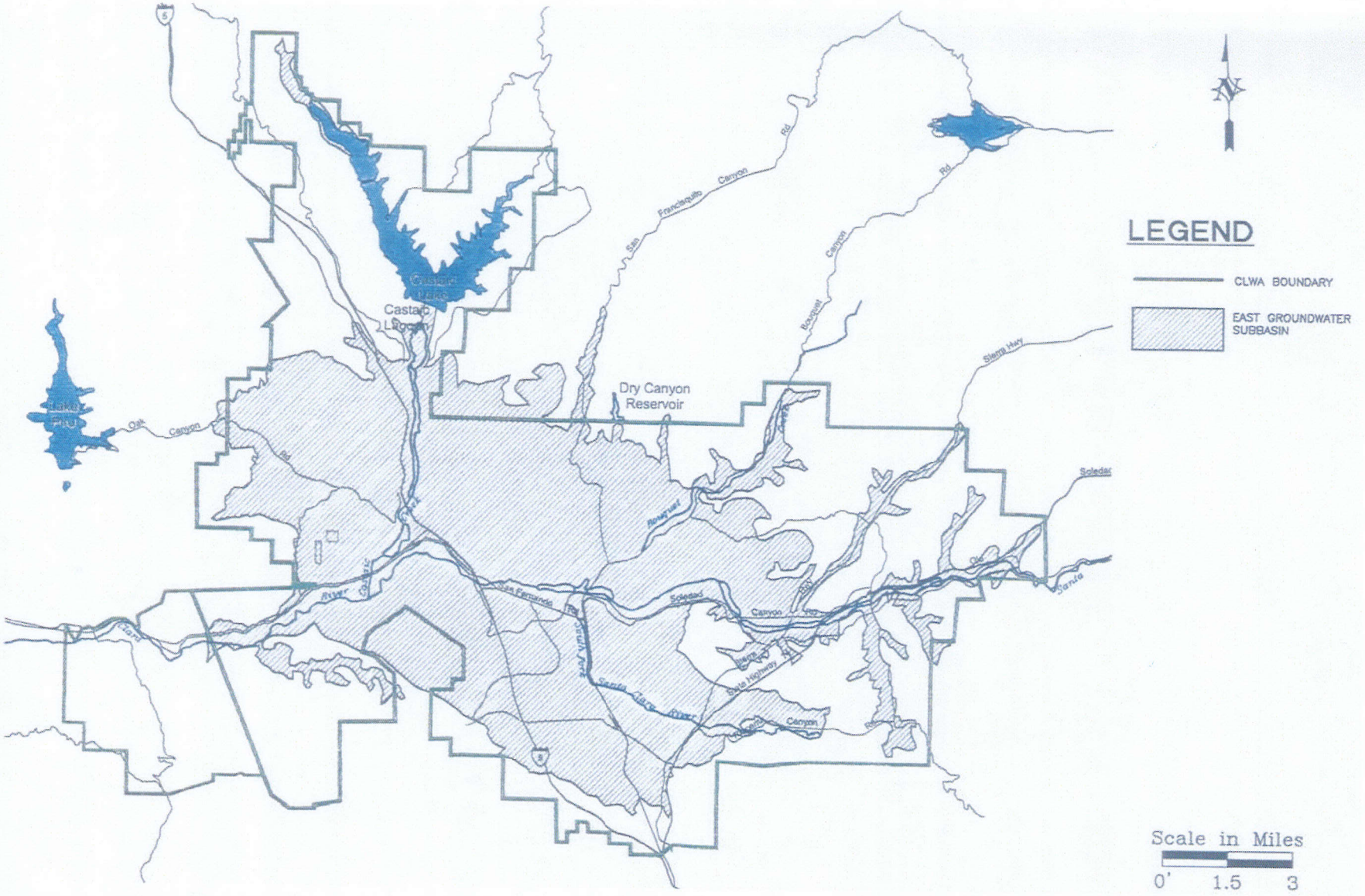
The Alluvial Aquifer system consists primarily of stream channel and floodplain deposits of the Santa Clara River and its tributaries. The alluvium is deepest along the center of the river channel, with a maximum thickness of approximately 200 feet near the area known as Saugus. It thins towards the flanks of the adjoining hills and towards the eastern and western boundaries of the basin and, in the tributaries, becomes a mere veneer in their upper reaches. The alluvium is the most permeable of the local aquifer units. Based on well yields and aquifer testing, transmissivity values in the range of 50,000 to 500,000 gallons per day per foot (gpd/ft) have been reported for the Alluvial Aquifer, with the highest values where the alluvium is thickest in the center of the valley and generally west of Bouquet Canyon. The amount of groundwater in storage can vary considerably because of the effects of recharge, discharge, and pumping from the aquifer. The maximum storage capacity of the Alluvial Aquifer has been estimated to be approximately 240,000 af (CLWA 2003).

The Alluvial Aquifer has been the predominant source of groundwater for agricultural and municipal water supply in the Santa Clara River Valley. In general, since the inception of the State Water Project (SWP) deliveries in 1980, total pumpage from the Alluvium has ranged from a low of approximately 20,000 af/yr in 1983 to slightly more than 43,000 af/yr in 1999 (CLWA 2003).

Saugus Formation

The Saugus Formation has traditionally been divided into two stratigraphic units: (1) the lowermost, geologically older Sunshine Ranch member, which is of mixed marine to terrestrial origin and (2) the overlying, or upper, portion of the Formation, which is entirely terrestrial in origin.

The Sunshine Ranch member of the Saugus Formation has a maximum thickness of approximately 3,000 to 3,500 feet in the central part of the valley; however, due to its marine origin and fine-grained nature, it is not considered to be a viable source of groundwater for municipal supply. Above the Sunshine Ranch member, the Saugus Formation is coarser-grained, consisting mainly of lenticular beds of sandstone and conglomerate that are interbedded with lesser amounts of sandy mudstone, which were deposited in stream channels, floodplains, and alluvial fans by one or more ancestral drainage systems in the valley. The sand and gravel units that represent aquifer materials in the upper part of the Saugus Formation are generally located between the depths of approximately 300 to 2,500 feet (CLWA 2003).



East Groundwater Subbasin

Figure 3.8-3

CLWA Recycled Water Master Plan

CLWA Groundwater Management Plan, December 2003

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Although the Saugus Formation is much thicker and more spatially extensive throughout the subbasin when compared to the alluvium and while it is significant in terms of groundwater storage and individual well capacity, the Saugus Formation has typically lower values of transmissivity, in the range of 80,000 to 160,000 gpd/ft, with the higher values in the upper portions of the Formation. The storage capacity of the Saugus has most recently been estimated to be 1.65 million af between depths of 300 feet and 2,500 feet (CLWA 2003). Since 1980, total pumpage from the Saugus Formation has ranged between approximately 3,850 af/yr and nearly 15,000 af/yr. The average pumpage over that period has been approximately 6,900 af/yr. Approximately 92 percent of this pumpage is for municipal supply (CLWA 2003); the remainder is for agricultural and miscellaneous use.

Surface Water Quality

Under Section 303(d) of the CWA, all states are required to develop a list of water quality impaired water bodies, and on July 25, 2003, the USEPA approved the California's most recent list of impaired water bodies. The list (hereinafter referred to as the 303(d) list) identifies specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. The Santa Clara River and Santa Clara River Estuary are on the 303(d) List.

The Santa Clara River is divided into eight "reaches," or segments, according to the Los Angeles Regional Water Quality Control Board. Table 3.8-5 lists the boundaries of the eight reaches of the Santa Clara River.

TABLE 3.8-5
REACH DESIGNATIONS FOR THE SANTA CLARA RIVER

Reach	Description	Within CLWA Service Area?
1	Santa Clara Estuary to Highway 101	No
2	Highway 101 to Freeman Diversion Dam	No
3	Freeman Diversion Dam to A Street, Filmore	No
4	A Street, Filmore to Blue Cut Gaging Station	Partially
5	Blue Cut Gaging Station to West Pier Highway 99 (Interstate 5)	Yes
6	West Pier Highway 99 (Interstate 5) to Bouquet Canyon Road	Yes
7	Bouquet Canyon Road to Lang Gaging station	Yes
8	Above Lang Gaging Station	Partially

The CLWA service area includes portions or all of Reaches 4, 5, 6, 7, and 8. The 2002 Clean Water Act Section 303(d) list of water quality limited segments for the Santa Clara River, as approved by the LARWQCB and the USEPA, is presented in Table 3.8-6.

TABLE 3.8-6
SANTA CLARA RIVER SECTION 303(D) LISTED POLLUTANTS

Name	Pollutant/Stressor	Potential Sources	TMDL Priority	Established TMDL?
Estuary	Chemical A	Source Unknown	Medium	No
	High Coliform Count	Non-point Source	Medium	No
	Toxaphene	Non-point Source	Medium	No
Reach 3	Ammonia	Non-point & Point Sources	High	Yes – 2.0 mg/L
	Chloride	Non-point & Point Sources	High	Yes - 100 mg/L
	Total Dissolved Solids	Non-point & Point Sources	Low	No
Reach 5	Chloride	Non-point & Point Sources	High	RWQCB Approved 100 mg/L
	High Coliform Count	Non-point & Point Sources	Medium	No
	Nitrate and Nitrite	Non-point & Point Sources	Low	Yes – 6.8 mg/L
Reach 6	Chloride	Non-point & Point Sources	High	RWQCB Approved 100 mg/L
	High Coliform Count	Non-point & Point Sources	Medium	No
Reach 7	High Coliform Count	Non-point & Point Sources	Medium	No

Source: LARWQCB 2002b.

The RWQCB revised the 303(d) list in 2002 and submitted the draft to the State Board for approval. The draft 303(d) list dated October 15, 2002, was revised on January 13, 2003, based on comments received from public hearings and the Draft 303(d) list was adopted by the SWRCB at its February 4, 2003, meeting. The adopted 303(d) List was approved by the USEPA on July 25, 2003.

Priority rankings must be established for impaired waters on the 303(d) list and action plans, called Total Maximum Daily Loads (TMDL), must be developed to improve water quality. A TMDL is a determination of the amount of a pollutant, from point, non-point, and natural background sources, including a margin of safety, which may be discharged to a water quality-limited water body. The Los Angeles RWQCB has approved a TMDL of 100 milligrams per liter (mg/L) for chloride for Reaches 5 and 6 of the Santa Clara River. The TMDL has been approved by SWRCB Office of Administrative Law and the USEPA and it became effective on May 4, 2005. A TMDL has not been developed for coliform in the Santa Clara River and is scheduled for completion by the end of 2006.

Sewage generated in the Santa Clarita Valley area is treated at the Valencia and Saugus WRPs. Reach 5 is downstream of Reach 6 and receives the effluent discharge of the Valencia WRP. The Saugus WRP discharges near the boundary of Reach 6 and Reach 7, just downstream of the Bouquet Canyon Road Bridge. In addition to the 303(d) listing of chloride and high coliform content for Reach 5, the LARWQCB established a TMDL for nitrate/nitrite in Reach 5, which was recently approved by the SWRCB and the USEPA. For MS4 and stormwater sources discharging into Reach 5, the 30-day waste load allocation (WLA) for nitrate plus nitrite as nitrogen is 6.8 milligrams per liter (mg/L). Reach 6 is included on the State Monitoring List for organic enrichment/dissolved oxygen, which may be caused by excessive nitrogen.

Groundwater Quality

Alluvial Aquifer

There is no convenient long-term record of water quality in the Alluvial Aquifer system (i.e., water quality data in one or more single wells that spans several decades and continues to the present). Thus, in order to examine a long-term record of water quality in the alluvium, individual records have been integrated from several wells completed in the same Alluvial Aquifer materials and in close proximity to each other to approximate historical trends throughout the basin. Based on these records of groundwater quality, wells within the Alluvium have experienced historical fluctuations in the general mineral content; however, on a long-term basis, there has not been a notable trend or decline in water quality within the alluvium (CLWA 2005c).

The most notable groundwater quality issue in the alluvium is perchlorate contamination. In 2002, one Alluvial well (Stadium well) located near the former Whittaker-Bermite facility was inactivated for municipal water supply due to detection of perchlorate slightly below the Notification Level. In April 2005, perchlorate was detected in a second Alluvial well, VWC's Well Q2. A plan for integrated control of contamination migration and restoration of impacted pumping (well) capacity has been prepared. Specific long-term resolution of perchlorate contamination in the alluvium, which has impacted two water supply wells, is currently expected to focus on a combination of wellhead treatment at Q2 and source control through on-site pumping and treatment in the northern alluvium and subsequent restoration of the impacted Stadium Well. The wellhead treatment was installed for well Q2 in September 2005.

Saugus Formation

Similar to the alluvium, groundwater quality in the Saugus Formation is a key factor in assessing that aquifer as a municipal water supply. As with groundwater level data, long-term Saugus groundwater quality data is not sufficiently extensive to permit any basin-wide analysis or assessment of pumping-related impacts on quality. Based on the historical record over the last 50 years, groundwater quality in the Saugus has exhibited a slight overall increase in general mineral content.

As with the alluvium, the most notable groundwater quality issue in the Saugus Formation is perchlorate contamination. Since 1997, four municipal supply wells have been out of water supply service due to the presence of perchlorate. While the inactivation of those wells does not limit the ability of the purveyors to meet water requirements, there is an ongoing effort to restore impacted pumping capacity and contain potential perchlorate migration in the Saugus Formation by 2006 (CLWA 2005c). A remediation program and schedule is underway that involves the installation of treatment facilities to both extract contaminated water and control migration in the Saugus Formation, such that the impacted capacity is restored and perchlorate migration is controlled in the year 2007.

3.8.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to hydrology and water quality resources are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Violate any water quality standards or waste discharge requirements.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on or off site.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

f. Otherwise substantially degrade water quality.

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

h. Place within a 100-year flood hazard area structures that would impede or redirect flows.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

j. Inundation by seiche, tsunami, or mudflow.

Direct Impacts

Threshold: *Would the project violate any water quality standards or waste discharge requirements?*

Recycled Water Supply

Recycled water would be used for large landscape irrigation purposes and would not be directly discharged into water bodies. The application of recycled water for landscape irrigation is managed to meet the transpiration demand; therefore, runoff and/or percolation of recycled water into groundwater would be minimal. In the unlikely event that incidental runoff does occur, according to the SWRCB's Executive Order on incidental runoff, occasional runoff should not trigger the need for either an individual NPDES permit or enforcement actions. Therefore, if the recycled water is in compliance with applicable Title 22 standards, then the impacts of incidental runoff from irrigation over-spray or other minor sources of runoff would not constitute violations of water quality standards and would not create a significant impact.

Valencia WRP Effluent

As previously discussed, the use of Valencia WPR effluent as a source of recycled water is regulated by RWQCB Order No. 87-48. The reclamation requirements were re-adopted in 1997 in Board Order No. 97-072. Since the commencement of recycled water use in 2003, the Valencia WRP has never been in violation of its water reclamation, monitoring, or reporting requirements. Continued compliance with all applicable regulations, permits, and standards, as set forth in NPDES Permit No. CA0054216 and Board Order No. 97-072, is required by federal

and state law. In the unlikely event that improperly treated wastewater would be introduced into the recycled water distribution system, then violations of water quality standards and waste discharge requirements would occur. The standards set forth in NPDES Permit No. CA0054216 and Board Order No. 97-072 are more stringent than those set forth by Title 22 and would ensure that water quality standards are satisfied and impacts would therefore be less than significant.

According to the LACSD, effluent from the Valencia WRP does not meet the standard for disinfection of tertiary recycled water for unrestricted access uses (refer to Section 60304 [a] of Title 22), as stated in Section 60301 of Title 22 of the *California Code of Regulations.* Title 22 states that "a chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times, with a contact time (CT) of at least 90 minutes, based on peak dry weather design flow," is required for recycled water use. In addition, ramping up the usage of chlorine (to achieve a higher chlorine residual) is complicated by the need to minimize chloride contributions from disinfection and comply with the NPDES permit chloride requirements (Conway 2004).

Insufficient chlorination of effluent from the Valencia WRP would result in violations of Title 22 water quality standards for recycled water use. In order to minimize the potential impacts of insufficient chlorination and to meet regulatory requirements for recycled water use, the CLWA may need to add additional chlorine to the recycled water supply or relocate the compliance point for disinfection. With the implementation of additional chlorination (at the sites where it is required) to the standards set forth by Title 22, the potential for violations of water quality standards by recycled water from effluent treated at the Valencia WRP would be less than significant.

City of Santa Clarita Shangri La Dewatering System

As previously stated, the discharge from PS#2 of the Shangri La dewatering system has had chronic exceedances for chloride, TDS, sulfate, nitrate, and several CTR based parameters. As a result, the original NPDES permit for PS#2 discharge was renewed with interim limits and a TSO for chloride, TDS, sulfate, and nitrate. On a few occasions, discharge from PS#2 has been in violation of these interim standards.

The potential introduction of this groundwater into the recycled water system would remove this point source from discharging into the Santa Clara River, thereby eliminating the need for an NPDES permit. Prior to the introduction of PS#2 discharge into the recycled water system, the City of Santa Clarita, owner of PS#2, would need to ensure that the water supply was in compliance with all applicable recycled water regulations, including the State Water Code, Title 22, and other DHS requirements. Compliance with the requirements of Title 22 would ensure that water quality standards are satisfied so impacts would be less than significant.

Six Flags Magic Mountain Amusement Park

As previously stated, water stored in the Magic Mountain water rides is potable water that has received additional chlorination. Incorporation of this water into the recycled water distribution system would ensure that the water was removed from the water rides prior to substantial evaporation. Evaporation of water from the water rides results in a concentration of chlorides in the remaining water. Prior to the introduction of discharge from the water rides into the recycled water system, Six Flags Magic Mountain would need to ensure that the water supply was in compliance with all applicable recycled water regulations, including the State Water Code, Title 22, and other DHS requirements. Compliance with the requirements of Title 22 would ensure that water quality standards are satisfied so impacts would be less than significant.

Berry Petroleum Placerita Oil Field Water

Oil production generates a significant by-product commonly known as "produced water". "Heavy oil" fields in California produce 10 to 15 barrels (420 to 630 gallons) of water for every barrel of oil produced. This represents a significant potential recycled water source. However, the feasibility of reusing produced water is highly dependent upon local conditions that include the chemical composition of the produced water, which is usually highly saline. The salinity can range from approximately 3,000 mg/L TDS to more than 350,000 mg/L TDS, with sodium and chloride comprising 70 – 90 percent of the ions, as well as high concentrations of calcium, iron, manganese, boron, and dissolved organics (ARCO Western Energy 1998).

Prior to pre-treatment, the use of oil-field produced water would contribute pollutants to the recycled water supply that are not in compliance with all applicable regulations, permits, and standards for recycled water. Therefore, prior to the potential introduction of oil-field produced water into the recycled water system, Berry Petroleum, owner of the Placerita Oil Field, would need to ensure that the water supply was in compliance with all applicable recycled water regulations, including the State Water Code, Title 22, and other DHS requirements. Compliance with the regulations of Title 22 would ensure that water quality standards are satisfied so impacts would be less than significant.

Newhall Ranch WRP

The Newhall Ranch WRP has not yet been constructed. The Newhall Ranch WRP will discharge into Reach 5 of the Santa Clara River, would be designed and operated to provide a tertiary level of treatment, and would be required to comply with all applicable federal, state, and local regulations and standards for wastewater treatment. As previously discussed, Title 22 specifies criteria for wastewater reclamation. However, the water quality objectives for the proposed WRP are based upon discharge limits set by the LARWQCB, which has more specific and stringent water quality requirements than Title 22. The Newhall Ranch WRP has been conceptually designed to meet effluent discharge standards similar to the standards specified by the LARWQCB for the Valencia WRP. The standards and constituents in the treated effluent for the two WRPs will be similar because the Newhall Ranch WRP would have similar wastewater generation sources and end uses as the Valencia WRP (LACDRP 1999).

Reservoir Tanks

Construction Activities

Construction of the recycled water system reservoirs would be located within elevated open space areas. Grading activities for the construction of the reservoirs would disturb the immediately surrounding vegetation and topsoil and would have the potential to generate sediment-laden runoff during rain events. Construction activities that impact more than one acre are subject to the requirements of the NPDES Construction General Permit. Although the footprint of the reservoirs would not be one acre, it is possible that the construction area (including the reservoir footprint, staging areas, and access roadways) would total at least one acre per reservoir. Therefore, coverage under the NPDES Construction General Permit would be required.

Storm water runoff from the project site during construction could contain soils and sediments from these activities. Spills or leaks from heavy equipment and machinery, construction staging areas, or building sites can also enter runoff, which typically include petroleum products such as fuel, oil and grease, and heavy metals. Additionally, because the existing vegetation on the site would be removed, the potential for erosion and sediment-laden runoff from the project site would be increased during construction. According to the requirements of the NPDES permit,

appropriate BMPs would be applied during grading and construction activities to minimize water quality impacts. The BMPs most often used during construction activities include surrounding the construction site with sand bags and/or silt fencing to minimize sediment-laden runoff from entering the storm drain system or downstream waters, temporary desilting basins, and timing the grading activities to avoid the rainy season. Compliance with the NPDES Construction General Permit, the preparation and implementation of an SWPPP, and implementation of erosion and treatment control BMPs would ensure that any impacts to downstream waters resulting from construction activities associated with the reservoirs would be less than significant.

Operational Activities

Operational activities on the reservoir sites would not involve activities that could significantly impact water quality standards or waste discharge requirements. The reservoirs would not generate traffic, require herbicide or pesticide use, or generate other types of polluted runoff that would require regulation. Operational activities on the reservoir sites would not be subject to the Standard Urban Storm Water Mitigation Plan (SUSMP) requirements because the project does not fall under the threshold categories for compliance. Potential impacts to water quality standards or waste discharge requirements from the operation of the reservoirs would be less than significant.

Recycled Water Pump Station/Booster Pump Stations

The construction and operation of a recycled water pump station at the Placerita Oil Field' a booster pump station at Honby, and any additional booster pump stations needed to increase pressure in the distribution system would not violate any water quality standards or waste discharge requirements. All construction activities larger than one acre in size are required to obtain coverage under the NPDES General Construction Permit, which mandates the use of BMPs to minimize polluted runoff from construction sites. The size of the construction footprint for the pump stations would be less than one acre; therefore, these facilities would not be required to obtain coverage under the NPDES permit due to the small size of the construction footprint. The operation of the pump stations would not generate pollutants that could impact water quality standards; therefore, impacts to water quality from construction of the pump stations would be less than significant.

Distribution System

Construction Activities

Construction of the distribution system within the CLWA service area would be largely beneath the existing street system, which would require the excavation of a portion of the street to access the underground piping. The excavation, handling, and replacement of a portion of the street and associated underground fill materials have the potential to generate sediment-laden runoff during rain events. Stormwater runoff from construction sites is regulated by the SWRCB NPDES General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ). This permit applies to traditional construction projects (such as residential or commercial developments) and large linear projects that typically result in areas of disturbed land being exposed for extended periods of time.

According to the Fact Sheet for Order 99-08, construction activities associated with small linear underground projects that result in land disturbances greater than one acre, but less than five acres (referred to as linear utility projects [LUPs]), are not like traditional construction projects. Small LUPs have lower potential to impact receiving waters because these projects are typically short in duration and are constructed within or around hard-paved surfaces that result in minimal

disturbed land areas being exposed at the close of the construction day (SWRCB 2003). Therefore, Water Quality Order 2003-0007-DWQ has been adopted statewide for storm water discharges associated with construction activity from small linear underground/overhead projects.

The construction of the distribution system would occur in phases over time. Therefore, if the various phases of the distribution construction would disturb more than one acre, but less than five acres, then the project would require coverage under this NPDES Construction General Permit for LUPs. Construction activities that would not impact more than one acre may also be regulated under the NPDES permit if they are part of a larger "common plan" of development. A "common plan" is broadly defined as any announcement or piece of documentation or physical demarcation indicating construction activities may occur on a specific plot. However, the EPA recognizes that there may be long-range master plans of development (such as the RWMP) where some portions of the master plan are conceptual, rather than specific, for future development. Under this circumstance, future construction activities would happen over an extended period of time. Therefore, the phases of development may be considered to be separate plans, provided the periods of construction for the physically interconnected phases will not overlap (USEPA 2005a).

The ultimate development of the RWMP is dependent upon the location of the end users and the details of the infrastructure phasing, and locations are therefore subject to revision. This means that construction of portions of the distribution system may be considered as separate projects, so are less than one acre in size and would not be subject to NPDES Construction General Permit coverage requirements. For construction activities that are regulated by the NPDES permit, coverage under and compliance with the NPDES Construction General Permit would ensure that the construction of the proposed project would not violate any water quality standards or waste discharge requirements.

Operational Activities

The operation of the distribution system would not generate any water or runoff that could violate water quality standards or waste discharge requirements, with the exception of periodic hydrostatic testing activities. The discharge of water used for any initial and/or routine hydrostatic testing of the pipeline would require coverage under an NPDES permit. Hydrostatic testing is usually performed by sealing the pipeline segment at the ends, filling the segment with water, pressurizing the segment, and then checking for leaks or other weaknesses in the system. Following the test, the pressure is released and the water from the pipeline is released.

New pipelines, such as the ones that would be used for the implementation of the RWMP, should be relatively free of pollutants that could be discharged along with the hydrostatic test water. Pollutants in the pipeline prior to the hydrostatic test may include construction debris, suspended solids from soil and welding solids, and lubricating oil. The current, widely practiced pollution-control technology for discharges of hydrostatic test water from new pipelines consists of pre-cleaning (scouring the inside of the pipe) and/or rinsing with water or a detergent solution before hydrostatic testing (USEPA 2004).

On July 1, 2004, the LARWQCB adopted Order No. R4-2004-0109 (Waste Discharge Requirements for Discharges of Low Threat Hydrostatic Test Water to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties), which is General Permit No. CAG674001. This permit enables the LARWQCB to expedite the processing of requirements for surface water discharges by covering the discharge of hydrostatic testing waste waters from pipes, tanks, or other storage vessels using domestic water, groundwater, or surface water. To enroll under this General Permit, the discharger must certify that the hydrostatic test water will be conducted using potable water. The discharger must also submit

water supply quality data demonstrating that the potable water complies with the California Department of Health Services (DHS) Maximum Contaminant Levels (MCLs) for drinking water. Coverage under this permit and compliance with its requirements would reduce potential impacts to water quality standards or waste discharge requirements from hydrostatic testing to a less-than-significant level.

Aquifer Storage and Recovery (ASR)

The ASR facility would be located in the Saugus Formation north of the San Gabriel Fault, which is not used for potable water supplies. The recycled water that would be pumped into the ASR would be required to meet all state and federal water quality standards. The Department of Health Services has created draft "Groundwater Recharge Reuse" regulations that reflect their current thinking on the regulations of recharge of groundwater with recycled water. These draft regulations have not yet been adopted, but are available at the DHS Drinking Water Program's website (CA DHS 2003).

These regulations have specific requirements for control of pathogenic microorganisms, nitrogen compounds, regulated chemicals and physical characteristics, and non-regulated chemicals in recycled water, as well as water quality monitoring requirements. Additionally, an Engineering Report would need to be submitted to the RWQCB and DHS. This Engineering Report would need to provide a comprehensive investigation and evaluation of the groundwater recharge program, impacts on the existing and potential uses of the groundwater basin, and the proposed means for achieving compliance with Title 22, *California Code of Regulations* Sections 60320.010 – 60320.050 and Sections 60325 – 60355 (CA DHS 2003).

When the Groundwater Recharge Regulations are adopted, any ASR project using recycled water would be subject to their monitoring and reporting requirements. Currently, neither recycled water from the Valencia WRP nor the other recycled water sources meet the requirements of the proposed groundwater recharge regulations. Additional pre-treatment, such as reverse osmosis, may be required prior to injection into the groundwater basin. Compliance with all applicable state and federal water quality standards, including any applicable groundwater recharge regulations, would ensure that recycled water injected into an ASR facility would not impact the water quality of adjacent groundwater supplies so potential impacts would be less than significant.

Northwest Spur Pipeline

Construction Impacts

The construction of the Northwest Spur Pipeline would require the excavation of raw earth near the Valencia WRP in order to connect to the existing recycled water pipeline, and excavations under the right-of-way of the following existing roadways: The Old Road, Henry Mayo Drive, and Commerce Center Drive. The excavation required for the construction of this pipeline would expose excavated soil to wind and rain, which would contribute sediment-laden runoff to the storm drain system. Other potential pollutants from the construction of the pipeline would include fluid leaks from the construction machinery and vehicles. If the construction of the pipeline would require the disturbance of soils greater than one acre in size then, prior to the implementation of a Regulatory Requirement, potential impacts to water quality could be significant. If construction activities would disturb less than one acre, then the potential for water quality impacts would be less than significant.

According to the Fact Sheet for Order 99-08, construction activities associated with small LUPs that result in land disturbances greater than one acre, but less than five acres, are not like traditional construction projects. Small LUPs have lower potential to impact receiving waters

because these projects are typically short in duration and are constructed within or around hard-paved surfaces that result in minimal disturbed land areas being exposed at the close of the construction day (SWRCB 2003). Therefore, Water Quality Order 2003-0007-DWQ has been adopted statewide for storm water discharges associated with construction activity from small linear underground/overhead projects. If the construction of the pipeline would require the disturbance of soils greater than one acre in size, coverage under this NPDES permit and compliance with its requirements would ensure that water quality impacts would be less than significant.

If the NWSP is to include construction of three booster pump stations (two of which would be conducted on a site that has been previously graded), then compliance with the NPDES General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ), as stated in Regulatory Requirement 3.8-1, would ensure that all potential construction-related impacts would be less than significant.

Operational Impacts

The Northwest Spur Pipeline would be constructed in accordance with all applicable requirements of Title 17 and Title 22, which govern the engineering, operation, and monitoring of recycled water systems. Once the facilities are constructed, the potential for water quality impacts would be less than significant.

Threshold: *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?*

Recycled Water Supply

Groundwater Recharge

The Santa Clara River and the underlying Alluvial Aquifer are hydrologically interconnected. As previously presented in Table 3.8-4, the Valencia and Saugus WRPs contribute to the river flow year-round in Reaches 5 and 6. In summer months, it appears that the effluent from the WRPs comprises a significant portion of the river flow. Therefore, a reduction in effluent flows from the WRPs to the Santa Clara River due to diversions for recycled water use has the potential to significantly impact the amount of groundwater recharge that occurs through the alluvial soils of the riverbed.

The CLWA approved a Program EIR in 1988 that included the development of 1,700 acre-feet of recycled water. The effluent discharged to the Santa Clara River in 1988 from both WRPs was assumed to be 9.72 mgd (10,877 af/yr). The removal of the 1,700 af/yr for use as recycled water was determined by the 1988 EIR to have no impact on the environment. In the intervening years since this analysis was conducted, effluent production from the Valencia WRP has continued to increase due to increased sewage inflow from new development.

From 2001 through 2005, the Valencia WRP and Saugus WRP discharged an annual average of 13.7 mgd (15,348 af/yr) and 4.7 mgd (5,265 af/yr), respectively, of effluent to the Santa Clara River, for a combined effluent discharge of 18.4 mgd (20,614 af/yr). This is the most recent data available of the effluent production from the Valencia and Saugus WRP. The Saugus and Valencia WRPs are an inter-connected sewerage and wastewater treatment system whereby sewage flows can be bypassed at the Saugus WRP and conveyed for treatment at the Valencia WRP. Over the past few years increased flows have been treated at the Valencia WRP with a

concomitant decrease in flows treated at the Saugus WRP due to operational considerations related to the construction and operation of nitrification-denitrification facilities at both WRPs. In the future, it is anticipated that the flows at the Saugus WRP will increase back to the design capacity of the plant.

By 2030, the anticipated design capacities of the Saugus and Valencia WRPs are expected to be 6.5 mgd (current design capacity at the Saugus WRP) and 27.6 mgd, respectively, for a combined WRP design capacity of 34.1 mgd. Based on the RWMP, reuse of this effluent is anticipated at 15.5 mgd (17,400 af/yr) by year 2030. Because no recycled water would be taken from the Saugus WRP and no expansion of this WRP is planned, it is anticipated that effluent discharges to the Santa Clara River from the Saugus WRP will be at the current design capacity of 6.5 mgd. The remaining discharges to the Santa Clara River will be from the Valencia WRP, and are anticipated to be 12.1 mgd (27.6 mgd less 15.5 mgd of reuse) by 2030.

Even though the discharge from the Valencia WRP to the Santa Clara River is anticipated to be lower than the 2001-2005 average conditions, the combined effluent discharges from both WRPs to the river are not expected to appreciably change. By 2030 (planning horizon for the RWMP), the combined WRP effluent discharge to the Santa Clara River of 18.6 mgd (34.1 mgd at both WRPs less 15.5 mgd of reuse at Valencia WRP) is slightly higher than the 2001-2005 average discharge conditions from both WRPs of 18.4 mgd. Therefore, the implementation of the RWMP would not impact the hydrology or ecology of the Santa Clara River system since the combined existing discharge conditions from both WRPs would be essentially maintained.

If at a future time, recycled water facilities should require more diversions to achieve the RWMP goal of 17,400 af/yr of recycled water use, additional CEQA analyses and a determination as to the impacts of any additional effluent diversion would be done. However, as a project design feature, all effluent diversions from the Valencia WRP into the recycled water system would not impact or divert from the average 18.4 mgd of effluent released into the Santa Clara River, as measured inform 2001 through 2005. Therefore, impacts to groundwater recharge would be less than significant.

The Newhall Ranch WRP has yet to be constructed; therefore, its effluent does not currently contribute to the flows of the Santa Clara River, and ultimately groundwater recharge. Consequently, its treatment and subsequent use would not interfere with naturally occurring groundwater recharge.

Oil field produced water is currently injected by deep wells into the Pico Formation, which is deeper than and separate from the Saugus Formation. The diversion of the produced water from the deep well injection would not impact groundwater supplies because the Pico Formation is not used as a source of drinking water (Takaichi 2005).

Groundwater Supply

The use of recycled water would result in reduced demands on the potable water supply, thereby reducing the demands on groundwater supplies. The use of WRP effluent, treated perchlorate-contaminated groundwater, and oil-field produced water would therefore have no negative impact on groundwater supplies.

Reservoir Tanks

The construction of the reservoir tanks would require the creation of structures on currently undeveloped land, which would introduce impervious surfaces and subsequently reduce groundwater recharge. The size of the reservoir tanks would range from 1.5 MG to 3.5 MG. However, these tanks would not substantially interfere with groundwater recharge due to their

location. The reservoirs would be located in hillside areas with elevations higher than the surrounding development. Rainfall events in the Santa Clarita Valley area usually sheetflow down hillside areas to creeks and/or storm drains where they meet with larger tributaries that may provide opportunities for groundwater recharge through the alluvial soils. The construction and operation of reservoir tanks would not interfere with runoff to downhill creeks and tributaries. Therefore, the construction and operation of the storage reservoirs would not substantially interfere with groundwater recharge. The construction and operation of the reservoir tanks would have no impact on groundwater supplies.

Recycled Water Pump Station/Booster Pump Stations

The construction and operation of the recycled water pump station and booster pump station(s) would not require the use of potable water that could increase demands on groundwater supplies, nor would it require the construction of substantial amounts of new impervious surfaces that could interfere with groundwater recharge. Therefore, the construction and operation of the recycled water pump station and booster pump stations would not impact groundwater supplies or substantially interfere with groundwater recharge.

Distribution System

The construction and operation of the distribution system does not require the use of potable water or the construction of new impervious surfaces; therefore, the distribution system would not impact groundwater supplies or substantially interfere with groundwater recharge.

Aquifer Storage and Recovery (ASR)

The ASR facility would be located in the Saugus Formation north of the San Gabriel Fault, which is not used for potable water supplies. The development of the ASR facility would not negatively impact groundwater recharge. In fact, the ASR facility could have a positive impact on groundwater recharge through the pumping of recycled water into the ASR facility.

Northwest Spur Pipeline

The construction and operation of the Northwest Spur Pipeline would have no impact on groundwater recharge or supplies because the pipeline would not create additional impervious cover or require changes to groundwater production rates of nearby wells. The construction of the booster pump stations would require a minimal amount of impervious cover (approximately 1,000 square feet each) and would not substantially impact groundwater recharge. The operation of the booster pump stations would have no impact on groundwater levels because they would not require the use of potable water that could increase demands on groundwater supplies.

Threshold: *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site?*

Recycled Water Supply

As previously discussed, effluent diversions from the Valencia WRP would not impact the flows of the Santa Clara River. Therefore, the development of the recycled water supply would not substantially alter the existing drainage pattern of a site or alter the course of a stream or river, so potential impacts would be less than significant. In addition, the application of recycled water for landscape irrigation would be managed to meet the transpiration demand; therefore, recycled water runoff would not substantially alter the existing drainage pattern of a site or alter the course of a stream or river.

Reservoir Tanks

As previously discussed, if the construction footprint of a reservoir tank would impact more than one acre, then the project construction activities would be subject to coverage under the NPDES Construction General Permit. Compliance with the NPDES Construction General Permit, the preparation and implementation of an SWPPP, and implementation of erosion-and-treatment-control BMPs would ensure that construction-related erosion or siltation impacts would be less than significant.

Reservoir tanks would not be located on a site that could alter the course of a stream or river. However, drainage on developed property would be impacted through the grading (leveling of soil) and construction of a foundation. Any alteration to existing drainage patterns resulting from the operation of a reservoir tank would be less than significant due to the relatively small footprint of the structure. Compliance with applicable building codes and engineering standards would ensure that drainage from the reservoir tank sites would be appropriately accommodated and would not result in substantial erosion or siltation. Operational activities on the reservoir sites would not be subject to the SUSMP requirements because the project does not fall under the threshold categories for compliance. The potential for substantial erosion or siltation on or off site from the operation of reservoir tanks would be less than significant.

Recycled Water Pump Station/Booster Pump Stations

The recycled water pump station at the Placerita Oil Field and the booster pump station at the existing Honby site would be located on previously developed property. Additionally, any other booster pump stations that may be needed would have a very small construction footprint and would be too small to alter the drainage pattern of a site. Therefore, construction and operation of a pump station and/or booster pump station(s) would not substantially alter the existing drainage pattern of the site or area and would not result in erosion or siltation on or off site.

Distribution System

The operation of the distribution system would have no impacts on existing drainage patterns that could result in erosion or siltation because the entire system would be underground and would not generate runoff.

Depending on the whether the size of the construction area would be one acre or larger (pipelines would be constructed in phases and in segments over time), the construction of the distribution system may be subject to the requirements of the NPDES General Construction Permit, which would require BMPs to prevent siltation on and off site.

If the pipeline must be constructed through a wetland or waters of the State or United States, then a Section 404 permit may be required from the U.S. Army Corps of Engineers (USACE). If construction would require a Section 404 permit or other individual permit from the USACE, a Streambed Alteration Agreement (pursuant to Section 1601 of the California Fish and Game

Code) from the CDFG would also be required, as would a 401 Water Quality Certification from the LARWQCB. These areas would be restored after construction since the pipelines would be underground.

Aquifer Storage and Recovery (ASR)

The ASR facility would be completely underground with the exception of well pumps and would not alter the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on or off site.

Northwest Spur Pipeline

The construction of the Northwest Spur Pipeline would not require the substantial alteration of existing drainage patterns because construction activities would be within the paved right-of-way of the existing streets. Runoff from storm events would be only temporarily diverted around the pipeline and booster pump station construction areas (per NPDES General Construction Permit requirements) and would not result in substantial alterations of drainage or erosion/siltation. The pipeline would be suspended upon the Commerce Center Bridge that spans Castaic Creek; therefore, pipeline construction would not impact the drainage patterns of Castaic Creek. Potential construction-related impacts related to siltation or erosion would be less than significant.

The operation of the pipeline would not impact any existing drainage patterns because the pipeline would be entirely underground or suspended upon the Commerce Center Drive Bridge. The booster pump station sites would be too small to substantially alter the existing drainage pattern of the site or result in erosion or siltation on site or off site. Additionally, each site would be constructed according to applicable County and UBC site drainage standards. Potential impacts would be less than significant.

Threshold: *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Recycled Water Supply

The use of the recycled water for irrigation purposes would not change existing irrigation application practices, and the application of recycled water for landscape irrigation would be managed to meet the transpiration demand; therefore, the use of recycled water would not substantially increase the rate or amount of surface runoff in a manner that could cause flooding on or off site.

Reservoir Tanks

As previously discussed, reservoir tanks would not be located on a site that could alter the course of a stream or river. The rate of runoff on developed property would be increased through the creation of impervious surfaces and removal of vegetation. However, any alteration to existing runoff rates that result from the operation of a reservoir tank would be less than significant due to the relatively small footprint of the structure. Compliance with applicable engineering standards would ensure that runoff from the reservoir tank sites would be appropriately accommodated by storm drain systems or by natural drainages and would not result in flooding on or off site. The potential for a substantial increase in the amount or rate of runoff that could result in flooding on or off site from the operation of reservoir tanks would be less than significant.

Recycled Water Pump Station/Booster Pump Stations

The amount of impervious cover generated by the development of the pump station facilities would be negligible and would not alter the rate or amount of surface runoff in a manner that would result in flooding. The sizes of the pump stations are too small to impact the existing drainage pattern on the site. Impacts would therefore be less than significant.

Distribution System

The operation of the distribution system would have no impacts on existing drainage patterns that could result in flooding because the entire system would be underground, would not generate runoff, and would not increase the amount of impervious cover. Construction activities would not increase the rate or amount of surface runoff in a manner that would result in flooding on or off site because only small portions of the roadway (i.e., streetscape and/or earth) would be excavated at any one time. The construction footprint could increase runoff, but would more likely capture it in the exposed excavation during a rain event.

Aquifer Storage and Recovery (ASR)

The ASR would be completely underground with the exception of well pumps and would not alter the existing drainage pattern of the site in a manner that would result in flooding on or off site.

Northwest Spur Pipeline

As previously discussed, the construction of the Northwest Spur Pipeline would not require the substantial alteration of existing drainage patterns because construction activities would be within the paved right-of-way of existing streets. Runoff from storm events would be temporarily diverted around the pipeline and booster pump station construction areas (per NPDES General Construction Permit requirements) and would not result in substantial alterations of drainage or flooding. The pipeline would be suspended upon the Commerce Center Drive Bridge that spans Castaic Creek; therefore, construction would not impact the drainage patterns of Castaic Creek. Potential construction-related impacts related to flooding would be less than significant. The operation of the pipeline would not impact any existing drainage patterns because the pipeline would be entirely underground or suspended upon the Commerce Center Drive Bridge. The booster pump station sites would be too small (approximately 1,000 square feet each) to substantially alter the existing drainage pattern of the site or result on-site or off-site flooding. Potential impacts would be less than significant.

Threshold: *Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Recycled Water Supply

The use of recycled water would not require changes to irrigation application practices and would therefore not contribute additional runoff to the existing or planned stormwater drainage system. Therefore, the recycled water supply would have no impact on the capacity of existing or planned stormwater drainage systems.

303(d) Constituents

The amount of incidental runoff generated by the use of recycled water would not vary considerably between wet and dry seasons. The amount of irrigation needed during dry seasons is substantially higher than during rainy seasons. However, irrigation practices take into consideration the seasonal likelihood of rainfall and then increase or decrease irrigation accordingly.

As previously discussed, recycled water would be used for irrigation purposes and would not be directly discharged into waters of the State or waters of the United States; therefore, 303(d) water bodies would not be directly affected by the use of recycled water. In addition, the application of recycled water for landscape irrigation is managed to meet the transpiration demand; therefore, runoff of recycled water would be minimal. In the unlikely event that incidental runoff (from sprinkler overspray) drains into the Santa Clara River or its tributaries, as previously discussed, this incidental runoff would not require enforcement actions or be subject to an NPDES permit, per SWRCB policy.

SWRCB policy states that incidental discharge of recycled water into waters of the State is not a violation of water recycling requirements unless it unreasonably affects the beneficial uses of the water or results in an exceedance of an applicable water quality objective. An evaluation of the recycled water supply sources' potential to result in an exceedance of a water quality objective is discussed below.

High Coliform Count

The Valencia WRP has consistently met final effluent permit limits for coliform[1] through current disinfection practices. Therefore it is not expected nor likely that recycled water would be or is a source of coliform to the Santa Clara River.

As previously discussed, Title 22 requires that recycled water be disinfected after filtration to the standard that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times, with a contact time of at least 90 minutes, based on peak dry weather design flow. Regulatory Requirement 3.8-5 would provide additional chlorine to the recycled water supply to ensure that disinfection methods comply with all Title 22 requirements. It would also provide an additional safeguard against coliform, since impacts associated with high coliform counts are already less than significant, given that existing disinfection practices at the Valencia WRP consistently comply with effluent permit limits for coliform.

Chloride and Total Dissolved Solids

Although use of recycled water would comply with all applicable federal and state water quality standards and treatment requirements for water reclamation, recycled water is higher in chloride than potable water. According to the Los Angeles RWQCB, imported water from the SWP has an average of 61 milligrams per liter (mg/L) of chloride as measured at Castaic Lake for the period from May 1972 through July 2006. However, SWP water can have chloride levels higher than 100 mg/L during drier than normal and/or drought conditions (Conway 2005). Chloride levels from WRP effluent (recycled water) can also vary significantly based on the quality of

[1] Per Valencia WRP Permit (R4-2003-0145): "The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if the median number of coliform organisms at some point in the treatment process does not exceed 2.2 per 100 milliliters, and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last seven (7) days for which analysis has been completed. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and the disinfection processes."

influent to the plant. Typical chloride levels in WRP effluent are 130–140 mg/L, but they can be as high as 190 mg/L (Conway 2005).

Even with the high amount of variation in the levels of chloride in potable water and the recycled water supply, the chloride contributions into receiving waters as a result of runoff from the use of recycled water is expected to be minimal. While the use of recycled water may increase the level of salinity in the soils (since chloride/TDS has the potential to accumulate in soils during plant transpiration), these accumulated salts in the soil would only be released as runoff to receiving waters during large rain events. Rainfall contains only trace amounts of chloride, and the release of entrenched salts from soils would be greatly diluted with wet weather runoff into receiving water bodies. Therefore, chloride-related water quality impacts associated with the use of recycled water for landscaping applications or other applications that have the potential to result in incidental runoff to 303(d) water bodies would be less than significant.

Nutrients— Nitrate/Nitrite

Although use of recycled water would comply with all applicable federal and state water quality standards and treatment requirements for water reclamation, recycled water is generally higher in nutrients than potable water. However, recent facility upgrades at the Saugus and Valencia WRPs have made it possible to provide full nitrification-denitrification, which has greatly reduced nitrogen loading in the watershed. Both WRPs are consistently complying with NPDES permit ammonia and nitrate plus nitrite effluent requirements. The Valencia WRP is consistently producing effluent with nitrate plus nitrite levels well below the primary drinking water maximum contaminant level of 10 mg/L N. In addition, irrigated plants absorb and process nitrogen and further reduce the amount available for inclusion in the unlikely event that incidental runoff to receiving waters occurs.

Given these considerations and the SWRCB's policy on incidental runoff, nutrient-related water quality impacts associated with the use of recycled water for landscaping applications or other applications that have the potential to result in incidental runoff to 303(d) water bodies would be less than significant.

Historic Pesticides (Toxaphene and Chemical A)

Toxaphene and Chemical A[2] have been listed on the 303(d) list only for the Santa Clarita River (SCR) estuary, which is over 30 miles west of the Santa Clarita Valley. These historic pesticides are primarily associated with agricultural activities, which predominantly occur in Ventura County and are not currently prevalent in the Santa Clarita Valley. However, given the Santa Clarita Valley's history of agricultural activities in the past, historic pesticides might theoretically exist in some soils. Any activities that would disturb or release these historic pesticides into runoff could potentially impact water quality. However, the use of recycled water in place of potable water would have no impact on soil disturbances and would not result in the release of historic pesticides from topsoil. In addition, these historic pesticides have not been detected in the Valencia WRP effluent. Therefore, historic pesticide-related water quality impacts associated with the use of recycled water for landscaping applications or other applications that have the potential to result in incidental runoff to 303(d) water bodies would be less than significant.

[2] Chemical A, or Group A pesticides, include aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorocyclohexane (including lindane), endosulfan, and toxaphene.

Reservoir Tanks

The creation of impervious cover would create additional runoff into existing storm drain systems or downstream natural waterways. However, any alteration to existing rates of runoff resulting from the operation of a reservoir tank would be less than significant due to the relatively small footprint of the structure. Compliance with applicable building codes and engineering standards would ensure that runoff from the reservoir tank sites would be appropriately accommodated by storm drain systems or by natural waterways. The potential for a substantial increase in the amount or rate of runoff would not be enough to significantly impact the capacity of existing storm drain systems and impacts would be less than significant.

Additionally, operational activities at the reservoir tanks would not generate substantial additional sources of polluted runoff. The tanks would not generate traffic or other sources of pollutants, other than occasional maintenance and monitoring of tank functions. Potential impacts would be less than significant.

Recycled Water Pump Station/Booster Pump Stations

The amount of runoff generated by the pump stations would be minimal due to the small size of the facilities footprints and runoff amounts would have a negligible impact on the capacity of existing or planned stormwater facilities. Construction of the pump stations would not require coverage under the NPDES General Construction permit due to the small size of the construction footprint and subsequent minimal impact on water quality. The operation of the pump stations would not substantially contribute pollutants to runoff because the facilities would not generate lawn irrigation or human or vehicular travel to or from the site, with the exception of routine maintenance activities. Impacts would therefore be less than significant.

Distribution System

The construction and/or operation of the distribution system would not increase impervious cover since pipelines would be buried and the surface restored, and would therefore not contribute additional runoff to the storm drain system.

Aquifer Storage and Recovery (ASR)

The ASR facility would not create impervious cover other than minor amounts at the well sites. Therefore, the development of the ASR facility would not contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems nor would it provide substantial additional sources of polluted runoff. Impacts to stormwater drainage systems associated with the wellheads and pipelines for the ASR facility are similar to those discussed in 2.8.2(e) and 2.8.4(e).

Northwest Spur Pipeline

The construction and operation of the Northwest Spur Pipeline would not create or contribute to additional runoff because it does not involve the creation of additional impervious cover. Additionally, the pipeline would not contribute additional sources of polluted runoff because the facilities would be entirely underground or suspended upon the Commerce Center Drive Bridge. The construction of the booster pump stations would create a minor amount of impervious cover (approximately 1,000 square feet each) and would not generate any on-site pollutants other than those generated from maintenance vehicles. The pump facilities would be electric and would not require diesel fuel on-site. Impacts related to site runoff and pollutants from the operation of the booster pump station would therefore be less than significant.

Threshold: *Would the project otherwise substantially degrade water quality?*

Recycled Water Supply

Groundwater Impacts

In general, recycled water may be stored in additional lagoons/ponds/lakes rather than in aboveground storage facilities (reservoir tanks). Currently, the RWMP does not propose to develop lagoons or ponds to store recycled water. However, for the sake of allowing for the possibility of developing aboveground ponds/lagoons for recycled water storage, an analysis of potential groundwater impacts is presented below.

Depending on the location of the ponds, the type of underlying soils and the distance to the groundwater table, concentrated levels of chloride, nutrients, or other constituents may impact groundwater quality. As previously discussed, all recycled water will be in compliance with Title 22 regulations. Additionally, as discussed in the SWRCB memo regarding incidental runoff of recycled water, any incidental runoff associated with the use of recycled water would have less-than-significant impacts on water quality and would not require enforcement action as long as the ponds are designed and operated so as not to spill during dry months (SWRCB 2004a).

In order to ensure that potential impacts to groundwater quality from the development of a recycled water pond/lagoon would be minimized to a less-than-significant level, a technical analysis of potential impacts on groundwater quality would be required prior to commencement of construction activities. The technical analysis would need to take into account existing groundwater and soil characteristics in the project area and would need to recommend mitigation measures to reduce potential groundwater impacts to less than significant.

As previously discussed, incidental runoff from the irrigation activities that use recycled water would have a less-than-significant impact on water quality and would not require regulation or enforcement under an NPDES permit. Therefore, groundwater quality would not be significantly impacted by incidental runoff.

Reservoir Tanks

All water quality issues have been previously discussed, and the construction and operation of the reservoir tanks would not otherwise substantially degrade water quality or impact groundwater quality.

Recycled Water Pump Station/Booster Pump Stations

All water quality issues have been previously discussed, and the construction and operation of the recycled water pump station and booster pump stations would not otherwise substantially degrade water quality or impact groundwater quality.

Distribution System

All water quality issues have been previously discussed, and the construction and operation of the distribution system would not otherwise degrade water quality or impact groundwater quality.

Aquifer Storage and Recovery

Under the proposed RWMP ASR facility location, recycled water would be injected into the Saugus Formation north of the San Gabriel Fault and the Holser Fault during the wet winter months when recycled water production is at its peak, but demand is low. All sub-basins in the Eastern Groundwater Basin are designated by the Basin Plan as being existing sources of domestic water supply. If recycled water were to intrude upon the potable water supply of the Saugus Formation, the groundwater quality could be significantly impacted.

As discussed in the RWMP, the San Gabriel and Holser faults would serve as a barrier that separates the potable water supply from the stored recycled water ASR facilities. Figure 2.4-4 in Section 2.0, Project Description, depicts the locations of the San Gabriel Fault and Holser Fault in relation to the proposed ASR facility. The Saugus Formation is comprised of layers of water-bearing deposits. The maximum thickness of the Saugus deposits that bear fresh water varies from a depth of 1,500 feet north of the San Gabriel Fault, to a depth of 5,000 feet south of the Holser Fault to a depth of 5,500 feet between the two faults.

Of the fresh water bearing deposits, a portion is fine-grained strata, such as siltstones and shales, which are unsuitable for groundwater storage and extraction. However, the remaining sand and gravel deposits are potentially usable water-bearing strata for the ASR facility. The maximum combined thickness of these usable water-bearing strata are between the depths of 500 feet and 2,500 feet and are located approximately 400 feet north of the San Gabriel Fault. As previously stated, the San Gabriel Fault and Holser Fault systems would prevent intrusion of recycled water into the potable groundwater of the Saugus Formation. Additionally, pumping the recycled water into the ASR facility at a 500-foot minimum depth would ensure that the recycled water would not interfere with the potable groundwater from the shallower Alluvial Aquifer (CLWA 2002a).

Regulatory Requirement 3.8-4 would ensure that recycled water injected into the ASR facility would not impact the water quality of adjacent groundwater supplies. Additionally, Mitigation Measure 3.8-1 would require that a hydrogeology analysis and/or water quality analysis at the proposed location of the ASR facility be conducted, and the findings of the investigations must conclude that the injection of recycled water into the ASR facility would not have the potential to impact the water quality of the potable water supplies. Ensuring that the ASR facility would be located in a geologic formation that would not allow for recycled water intrusion into potable groundwater supplies of the Saugus Formation or the Alluvial Aquifer, as well as ensuring that recycled water meets all applicable state and federal water quality standards (including any applicable groundwater recharge regulations) would reduce potential water quality impacts to less than significant.

Northwest Spur Pipeline

All water quality issues have been previously discussed and the construction and operation of the Northwest Spur Pipeline would not otherwise substantially degrade water quality or impact groundwater quality.

Threshold: *Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

The implementation of the RWMP, including the Northwest Spur Pipeline, does not involve the construction of housing or habitable structures. There would be no impact related to housing within a 100-year flood hazard area for any RWMP component or for the Northwest Spur Pipeline.

Threshold: *Would the project place within a 100-year flood hazard area structures that would impede or redirect flows?*

Recycled Water Supply

The development of the recycled water supply would not place structures that could impede or redirect flood flows within a 100-year flood hazard area.

Reservoir Tanks

The development of the reservoir tanks would not place structures that could impede or redirect flood flows within a 100-year flood hazard area.

Recycled Water Pump Station/Booster Pump Stations

The development of the recycled water pump station and booster pump station would not place structures that could impede or redirect flood flows within a 100-year flood hazard area.

Distribution System

The construction and/or operation of the distribution system would not place structures that could impede or redirect flood flows within a 100-year flood hazard area. Pipelines would need to be constructed that cross the Santa Clarita River and other tributaries. However, these pipelines would be connected to existing bridges and would not impact, impede, or redirect flood flows of the Santa Clarita River.

Aquifer Storage and Recovery (ASR)

The operation of the ASR facility would not place structures that could impede or redirect flood flows within a 100-year flood hazard area.

Northwest Spur Pipeline

The development of the Northwest Spur Pipeline would not place structures that could impede or redirect flood flows within a 100-year flood hazard area. The pipeline would be suspended under the existing Commerce Center Drive bridge (which crosses over Castaic Creek) and would not constitute an impediment to the flood flows. The booster pump stations would be too small to impede or redirect floodwaters and two of the three sites would eventually be surrounded by commercial development and an associated storm drain system, which would further minimize impacts to flood flows. All three sites would be constructed according to County and UBC standards for drainage. Therefore, these structures would not impede or redirect flood flows within a 100-year flood hazard area.

Threshold: *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

Recycled Water Supply

The development of the recycled water supply would not increase the risk of flooding and would not impact a dam or levee system; therefore, people and/or structures would not be exposed to a risk of injury or death involving flooding.

Reservoir Tanks

The operation of the storage reservoirs has the potential to expose people or structures to a risk of injury or death involving flooding should the reservoirs rupture near habitable structures. Tank rupture would be an extremely rare occurrence and could be facilitated by an earthquake or mudslide. Therefore, the structural design of the reservoirs would dictate the amount of impact associated with exposing people or structures to risk of flooding due to tank failure.

The State of California permits both steel and concrete construction materials for reservoir tank construction. According to the National Drinking Water Clearinghouse, all piping, joints, and fittings should conform to American Water Works Association (AWWA) specifications. Welded steel water tanks should confirm to American National Standards Institute (ANSI)/AWWA Standard D100. Factory-coated bolted steel tanks should conform to ANSI/AWWA D103. Wire and strand wound, circular, pre-stressed concrete tanks should conform to ANSI/AWWA Standard D110. Additionally, the storage tanks should be painted or have cathodic protection. The AWWA standards for painting exclude the use of paints that might add toxic materials to the stored water. The paint, both external and internal, should comply with the standards prescribed by AWWA D101 and D102 (NDWC 2001).

Compliance with the Uniform Building Code (or local codes and conditions if they are more stringent), AWWA and ANSI specifications, and the Soil Engineer's recommendations would ensure that reservoir tank construction would be designed to withstand potential seismic activity. Potential impacts regarding exposing people or structures to risk of flooding would be less than significant.

Recycled Water Pump Station/Booster Pump Stations

The operation of the pump stations would not increase the risk of flooding and would not impact a dam or levee system; therefore, people and/or structures would not be exposed to a risk of injury or death involving flooding.

Distribution System

The construction and/or operation of the distribution system would not increase the risk of flooding and would not impact a dam or levee system; therefore, people and/or structures would not be exposed to a risk of injury or death involving flooding.

Aquifer Storage and Recovery (ASR)

The operation of the ASR facility would not increase the risk of flooding and would not impact a dam or levee system; therefore, people and/or structures would not be exposed to a risk of injury or death involving flooding.

Northwest Spur Pipeline

The development of the Northwest Spur Pipeline and booster pump stations would not increase the risk of flooding and would not impact a dam or levee system; therefore, people and/or structures would not be exposed to a risk of injury or death involving flooding.

Threshold: *Would the project result in inundation by seiche, tsunami, or mudflow?*

The implementation of the RWMP, including the Northwest Spur Pipeline, does not involve placing people or structures at risk of inundation by seiche, tsunami, or mudflow for any of the RWMP components or the Northwest Spur Pipeline since there would not be any large open reservoirs. Potential impacts would be less than significant.

Indirect Impacts

The implementation of the RWMP would not result in any indirect water quality impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.8.3 MITIGATION PROGRAM

Project Design Features

- To the extent feasible, all distribution system pipelines shall be constructed under existing roadways and pipelines that cross the Santa Clara River and its tributaries shall be attached to existing bridges.

- All effluent diversions from the Valencia WRP into the recycled water system would not impact or divert from the average annual flows of 18.4 mgd of effluent released into the Santa Clara River, as measured from 2001 through 2005. If at a future time, recycled water facilities should require more diversions to achieve the RWMP goal of 17,400 af/yr of recycled water use, additional CEQA analyses and a determination as to the impacts of any additional effluent diversion would be performed.

Regulatory Requirements

RR 3.8-1 Prior to the commencement of grading activities for construction of each of the proposed project components, the CLWA shall determine whether or not the construction activities are required to obtain coverage under the NPDES General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ) or the NPDES General Permit for Storm Water Discharges Associated with Construction Activity from Small Linear Underground Projects (Water Quality Order 2003-0007-DWQ). If the project component meets the criteria for coverage under either of these two NPDES permits, then the CLWA will be responsible for filing a Notice of Intent, an SWPPP (if applicable), and the appropriate fees to the State Water Resources Control Board, Division of Water Quality in order to obtain coverage under the applicable NPDES permit. Pursuant to the permit requirements, the CLWA shall minimize construction-related pollutants, including erosion-related sediment, in the site runoff through the implementation of Best Management Practices.

RR 3.8-2 Prior to commencement of any pipeline construction activities, the CLWA shall determine whether or not the construction activities are required to obtain coverage under and comply with all requirements of LARWQCB Order No. R4-2004-0109 "Waste Discharge Requirements for Discharges of Low Threat Hydrostatic Test Water to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties," which is General NPDES Permit No. CAG674001. If the project meets the criteria for coverage under this NPDES permit, then the CLWA will be responsible for full compliance with the requirements of the permit.

RR 3.8-3 The Recycled Water Master Plan shall be implemented in compliance with all applicable federal, state and local regulations, including the California Water Code, CCR Title 22, CCR Title 17, DHS Guidelines, and the Los Angeles County Department of Health Services Cross-Connection and Water Pollution Control Program.

RR 3.8-4 All reservoir tanks shall be located and designed to be in compliance with the Uniform Building Code (or local codes and conditions if they are more stringent), American Water Works Association, and American National Standards Institute specifications to ensure that reservoir tank construction would be designed to withstand potential seismic activity.

RR 3.8-5 The operation of ASR facilities must comply with all applicable state and federal groundwater recharge regulations, including the future Title 22 "Groundwater Recharge Reuse" regulations should they be adopted, which are in draft form and are currently proposed by the California Department of Health Services.

RR 3.8-6 The CLWA shall include additional chlorination capacity, if necessary, or relocate the compliance point for disinfection, to ensure that the recycled water supply is adequately chlorinated and in compliance with Title 22 requirements for the disinfection of tertiary recycled water prior to delivery to customers.

Mitigation Measures

MM 3.8-1 Prior to the implementation of any components of the RWMP that are contingent upon the availability of a functioning ASR facility, a hydrogeology analysis and/or water quality analysis of the proposed location of the ASR facility shall be conducted. In order for the ASR facility to be implemented, the findings of the geotechnical investigation and/or water quality analysis must conclude that the injection of recycled water into the ASR facility would not have the potential to impact the water quality of the potable water supplies of the Saugus Formation or the Alluvial Aquifer, or other groundwater supplies designated as a potential source of domestic water supply.

MM 3.8-2 Prior to the commencement of construction of an aboveground recycled water lagoon/pond/lake, a technical analysis of potential impacts on groundwater quality would be required. The technical analysis must take into consideration the existing groundwater and soil characteristics in the project area and recommend mitigation measures to reduce potential groundwater impacts to less than significant, if necessary.

3.8.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, potentially significant impacts to hydrology and water quality would be reduced to less than significant. Implementation of the RWMP would not create significant unavoidable adverse hydrology and water quality impacts.

3.9 LAND USE AND PLANNING

This section of the EIR analyzes the consistency of the proposed project with applicable land use plans and policies, and the potential impacts of the proposed project on existing and future land uses. The analysis is based on information provided by applicable land use plans and policies.

3.9.1 ENVIRONMENTAL SETTING

Existing Land Uses

The CLWA service area encompasses approximately 195 square miles of the Santa Clarita Valley in the northwestern part of Los Angeles County and a small portion of eastern unincorporated Ventura County. The service area includes the cities of Santa Clarita and the unincorporated areas of Castaic, Valencia, Saugus, Canyon Country, Newhall and Mint Canyon. Land uses within the service area range from heavily urbanized development (residential, commercial, industrial, institutional) in the City of Santa Clarita to less developed and more rural areas, including agricultural and open spaces of the eastern Santa Susana and western San Gabriel Mountains. A large portion of the Santa Clarita Valley is characterized by steep terrain, floodplains of the Santa Clara River and associated tributaries, and the Angeles National Forest, which limit development. Hence, most of the existing development has occurred in the valley floor and canyons.

The presence of three major highways (U.S. Interstate 5, State Highway 14, and State Highway 126) has influenced the rate of residential, commercial, and industrial growth in the region. Section 3.0 of the Recycled Water Master Plan provides a summary of the current designated land uses in the CLWA service area.

Regulatory Setting

Land use development within the CLWA service area is governed by the following documents: 1) Los Angeles County General Plan; 2) Santa Clarita Valley Area Plan; 3) City of Santa Clarita General Plan; and the 4) Ventura County General Plan. Other planning and land use documents developed within the CLWA service area include the following:

- Newhall Ranch Specific Plan
- NorthLake Specific Plan
- Canyon Park Specific Plan (now Fairbanks Ranch)
- Porta Bella Specific Plan
- North Valencia II Specific Plans
- Stevenson Ranch Specific Plans
- Santa Clara River Enhancement and Management Plan (SCREMP)
- Newhall Land Natural River Management Plan (NRMP)

The goals and adopted policies that are relevant to the proposed project are listed for each plan separately and by their respective chapter and a project consistency evaluation with these policies is provided in Section 5.0, Consistency with Adopted Plans and Policies.

3.9.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to land uses are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Physically divide an established community.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Direct Impacts

Threshold: *Would the project physically divide an established community?*

The proposed RWMP is considered a public infrastructure improvement project that would serve existing and future communities throughout the CLWA service area. Upon implementation, these RWMP facilities would support and enhance existing land uses by providing the opportunity for recycled water use. There are no facilities proposed by the RWMP that could physically divide an established community. Potential impacts would be less than significant.

Threshold: *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

An analysis of how the implementation of the RWMP would impact land use policies, as set forth in applicable regional and general plans, is presented in Section 5.0, Consistency with Adopted Plans and Policies. Per Section 53091 of the California Government Code, state law does not apply specific local zoning, building, or permit requirements to this type of CLWA projects. Therefore, development of the RWMP would serve locally approved development and would not conflict with local zoning, land use designations, plans, policies, or regulations.

Threshold: *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

Impacts to other plans are discussed in Section 3.4 Biological Resources. The incorporation of Mitigation Measure 3.4-1 through Mitigation Measure 3.4-7, as presented in Section 3.4 of this EIR, would mitigate for any impacts to biological resources. Therefore, potential conflicts with the NRMP goals and objectives for natural resource preservation would be mitigated to a level less than significant.

Indirect Impacts

The implementation of the RWMP would not result in any indirect land use impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.9.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

None

Mitigation Measures

None required.

3.9.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Implementation of the RWMP would not create significant unavoidable adverse land use and planning impacts.

3.10 MINERAL RESOURCES

This section of the EIR analyzes the proposed project's potential impacts on the availability and accessibility of any existing mineral resources in the CLWA service area. Relevant information for this analysis was obtained from the City of Santa Clarita General Plan.

3.10.1 ENVIRONMENTAL SETTING

Portions of the CLWA service area have historically been used for oil and gas exploration and production. The history of commercial oil production in the area began at least 150 years ago. Andreas Pico collected seepage oil in 1850 from Pico Canyon and sold it to San Fernando Mission for illumination. Union Oil subsequently began oil production in Pico Canyon in the 1870s. Oil fields in the area include the Newhall-Potrero, Placerita, Castaic Junction, Castaic Hills, Bouquet Canyon, Wayside Canyon, Tapia Canyon, and Honor Rancho fields (CLWA, 2004d).

Much of the CLWA service area is classified as potential sand and gravel mineral resource areas. Most of the floodplain of the Santa Clara River drainage system is classified by the California Geological Survey (CGS) as Zone MRZ-2, which is an area where there is an indication that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. This zone along the Santa Clara River also includes two major tributaries; Castaic and Newhall Creeks. The remainder of the tributaries, which contain substantial alluvial deposits, are classified as Zone MRZ-3, which are those areas containing mineral deposits, the significance of which cannot be evaluated from available data. The larger of these remaining tributary alluvial deposits that may be future sources of aggregate include San Francisquito, Bouquet, Mint, Upper Soledad, Oak Spring, Sand, Pico, and Hasley Canyons (CLWA, 2004d).

Tertiary sedimentary rocks in the CLWA service area are also considered alternative sources of aggregate. The Saugus Formation is classified as Zone MRZ-3. Although in many areas the Saugus Formation contains an abundance of clayey silt, clayey sandstone, and sandy mudstone, many areas consist of relatively clean sandstone and conglomerate, which are suitable sources of aggregate (CLWA, 2004d).

The City of Santa Clarita General Plan, Open Space and Conservation Element, identifies placer gold gulches and oil fields within the general footprint of the ASR, as illustrated in Figure 2-7 in the Project Description. Other minerals found in the planning area include construction aggregate, titanium, and tuff (Santa Clarita, 1991).

3.10.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to mineral resources are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Direct Impacts

Threshold: *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

The Saugus Formation is a known source of potential aggregate and it underlies the majority of the Santa Clarita Valley area. Projects that would substantially limit the availability of this resource would result in significant impacts. Additionally, projects that would impede oil drilling operations would result in significant impacts. The implementation of the RWMP would not interfere with existing oil drilling operations or mining operations in the Saugus Formation, or inhibit potential oil drilling or mining operations because of the location and/or small footprint of the RWMP components. The pipelines would be located in roadway easements, and as such would not be located in an area of existing or future mining oil drilling.

The reservoir tanks, which would have the largest development footprint of any of the RWMP components, would not be large enough to interfere with the exploration of the Saugus Formation for mining or with the exploration of new oil drilling opportunities. Because the ASR involves deep well injection and would not involve spreading grounds, there would be no adverse impact to the accessibility of mineral resources. Additionally, recycled water would be injected into soils at least 500 feet below the surface, which would be deep enough to avoid adverse impacts potential mining operations.

The remaining potential mineral resources, which are located within the bed of the Santa Clara River and certain tributaries, would not be affected by the proposed project because none of the RWMP components would be constructed within streambeds. Therefore, implementation of the proposed project would not result in the loss of availability of the Saugus Formation or other potential mineral resources in the project area.

Threshold: *Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

As described above, the proposed project would result in no impacts to mineral resources.

Indirect Impacts

The implementation of the RWMP would not result in any indirect impacts to mineral resources. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.10.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

None

Mitigation Measures

None required.

3.10.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Implementation of the RWMP components would have a less than significant impact on mineral resources.

3.11 NOISE

This section of the EIR analyzes potential noise impacts from implementation of the proposed project. The analysis is based on the Acoustical Assessment for the Recycled Water Master Plan, prepared by RBF Consulting, October 13, 2006 and located in Appendix E.

3.11.1 ENVIRONMENTAL SETTING

Existing Noise Sources

Mobile Noise

According to the City's General Plan (dated May 23, 2000), vehicular traffic is one of the dominant noise sources within the City of Santa Clarita. The greatest noise levels occur at Interstate 5 (I-5) and State Route 14 (SR-14), which border the City to the west and east. Noise levels along I-5 and SR-14 reach noise levels in excess of 75 dBA and in some instances 80 dBA. Additional roadway traffic noise occurs on major arterials, including Valencia Boulevard, San Fernando Road, Bouquet Canyon Road, Seco Canyon Road, Soledad Canyon Road, McBean Parkway, Newhall Ranch Road, and Sierra Highway. The Southern Pacific rail lines and Metrolink service, which run through the City, represent an added noise source in the area.

Stationary Noise

The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment, loading/unloading areas, parking lots, landscape maintenance, conversations [normal to loud], and recreational areas) and residential activities (i.e., air conditioners, pool/spa equipment, landscape maintenance, and conversations). The noise associated with these sources may represent a single event noise occurrence, short-term or long-term/continuous noise.

Sensitive Receptors

Certain land uses are considered particularly sensitive to noise. Schools, hospitals, rest homes, long-term medical and mental care facilities, parks and recreation areas are all considered sensitive receptors. Residential areas are also considered noise-sensitive, especially during the nighttime hours. As illustrated in the Figure 2-3 in the Project Description, the proposed RWMP would include facilities that would be located throughout the City of Santa Clarita. RWMP components could potentially be located adjacent to sensitive receptors such as schools, hospitals and rest homes. At this time, facilities for the RWMP are conceptual and subject to change. Pipelines would be located in existing or future public right-of-way, including streets and highways. As illustrated within Figure 2-5 in the Project Description, the Northwest Spur Pipeline would be located along Commerce Center Drive, Henry Mayo Drive and The Old Road. Surrounding land uses include primarily vacant and commercial/industrial land uses.

Regulatory Setting

U.S. Environmental Protection Agency

The EPA offers guidelines for community noise exposure in the publication entitled *Noise Effects Handbook – A Desk Reference to Health and Welfare Effects of Noise*. These guidelines consider occupational noise exposure as well as noise exposure in homes. The EPA recognizes an exterior noise level of 55 decibels day-night level (dB L_{dn}) as a general goal to protect the public from hearing loss, activity interference, sleep disturbance, and annoyance.

The EPA and other Federal agencies have adopted suggested land use compatibility guidelines that indicate that residential noise exposures of 55 to 65 dB L_{dn} are acceptable. The EPA notes, however, that these levels are not regulatory goals, but are levels defined by a negotiated scientific consensus, without concern for economic and technological feasibility or the needs and desires of any particular community.

State of California

The State Office of Planning and Research (OPR) *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The OPR *Guidelines* contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of community noise equivalent level (CNEL). A CNEL is defined as the 24-hour average noise level measured in A-weighted sound pressure level for a 24-hour period with different weighting factors for the noise levels occurring during the day, evening, and nighttime periods. A noise environment of 50 to 60 CNEL is considered to be "normally acceptable" for residential uses. The OPR recommendations also note that, under certain conditions, more restrictive standards than the maximum levels cited may be appropriate. As an example, the standards for quiet suburban and rural communities may be reduced by 5 to 10 dB to reflect their lower existing outdoor noise levels in comparison with urban environments.

Local Ordinances

Section 53091 of the California Government Code, states "Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." The County of Los Angeles' Noise Ordinance and the City of Santa Clarita's Noise Ordinance are not within the building/zoning ordinances, so the proposed project would be subject to their requirements. However, the City's construction time limits apply to only to projects that require a building permit; therefore this aspect of the City's Noise Ordinance would not be applicable to CLWA projects. All operational noise must comply with the City and County Noise Ordinance requirements.

City of Santa Clarita

The City has set land use standards for noise in its General Plan Noise Element (June 25, 1991; First Amendment, May 23, 2000). One of the City's goals in the Noise Element is to prevent and mitigate significant noise levels in residential neighborhoods. It requires developers of new single-family and multifamily residential neighborhoods in areas where the ambient noise level exceeds 55 dBA (night) and 65 dBA (day) (or the equivalent of 65 dBA CNEL) to provide mitigation measures for the new residences to reduce interior noise levels.

In addition, the City will develop, adopt, and enforce a standard for all commercial uses of 70 dBA (night) and 80 dBA (day) (or the equivalent of 80 dBA CNEL) that cause adverse levels of significant discernible noise on adjacent residential neighborhoods. The City's Municipal Code, Chapter 11.44, *Noise Limits*, establishes noise standards in various land use zones during daytime (7:00 a.m.–10:00 p.m.) and nighttime (10:00 p.m.–7:00 a.m.) periods. For residential zones, the base noise levels are 65 dBA during the daytime period and 55 dBA during the nighttime period. For commercial and manufacturing zones, the base noise levels are 80 dBA during the daytime period and 70 dBA during the nighttime period. For repetitive impulsive noise or steady, whine, screech, or hum noise, the base noise levels noted above are reduced by 5 dBA. If the noise occurs more than 5 but less than 15 minutes per hour during the daytime period, the above base noise levels are raised by 5 dBA. If the noise occurs more than

one but less than five minutes per hour during the daytime period, the above base noise levels are raised by 10 dBA. If the noise occurs less than one minute per hour during daytime period, the above base noise levels are raised by 20 dBA.

No person shall engage in any construction work that requires a building permit from the City on sites within 300 feet of a residentially zoned property except between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and 8:00 a.m. and 6:00 p.m. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas Day, Memorial Day, and Labor Day. The City of Santa Clarita Planning and Building Services Department may issue a permit for work to be done "after hours" provided that containment of construction noises is provided.

County of Los Angeles Noise Standards

The County of Los Angeles does not set land use standards for noise in its Noise Element of the General Plan. However, the County Code, Chapter 12.08 Noise Control, has the following exterior noise standards listed in Table 3.11-1.

TABLE 3.11-1
COUNTY OF LOS ANGELES EXTERIOR NOISE STANDARDS

Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level (dBA)
I	Noise Sensitive Area	Anytime	45
II	Residential Area	10:00 p.m. to 7:00 a.m. 7:00 p.m. to 10:00 p.m.	45 50
III	Commercial Area	10:00 p.m. to 7:00 a.m. 7:00 p.m. to 10:00 p.m.	55 60
IV	Industrial Area	Anytime	70

Source: County of Los Angeles, Municipal Code, Chapter 12.08 Noise Control, 1999.

The above noise level limits may not be exceeded for a cumulative period of more than 30 minutes in any hour. If the existing ambient L_{50} exceeds these levels, then the ambient L_{50} becomes the exterior noise levels. For events shorter than 30 minutes, higher noise limits are used for the exterior noise standards. For example, 5, 10, and 15 dBA are added to the above noise limits for events less than 15, 5, and 1 minutes, respectively. Twenty dBA plus the above noise limits (70 dBA L_{max} during the day and 65 dBA L_{max} during the night) may not be exceeded for any period of time.

For interior noise standards, the County Los Angeles sets an allowable interior noise level of 45 dBA for the period from 7:00 a.m. to 10:00 p.m. and 40 dBA for the period from 10:00 p.m. to 7:00 a.m. for all multifamily residential uses. For events shorter than 5 minutes in any hour, the noise standard is increased in 5 dBA increments in each standard. For example, 5 and 10 dBA are added to these noise limits for events less than five minutes and one minute, respectively. If the measured ambient noise reflected by the L_{50} exceeds that permissible within any of the interior noise standards, the allowable interior noise level shall be increased in 5 dBA increments in each standard, as appropriate, to reflect said ambient noise level.

The County of Los Angeles also has the following construction noise restrictions:

A. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound there from creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.

B. Noise Restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:

1. Residential Structures.

a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than ten days) or of mobile equipment; refer to Table 3.11-2:

TABLE 3.11-2
COUNTY OF LOS ANGELES MOBILE EQUIPMENT NOISE STANDARD

Time Interval	Single-Family Residential (dBA)	Multi-Family Residential (dBA)	Semi-Residential or Commercial (dBA)
Daily except Sundays and legal holidays: 7:00 a.m. to 8:00 p.m.	75	80	85
Daily 8:00 p.m. to 7:00 a.m. and all day Sunday	60	64	70
Source: County of Los Angeles, Municipal Code, Chapter 12.08 Noise Control, 1999			

b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of ten days or more) of stationary equipment; Table 3.113:

TABLE 3.11-3
COUNTY OF LOS ANGELES STATIONARY EQUIPMENT NOISE STANDARDS

Time Interval	Single-Family Residential (dBA)	Multi-Family Residential (dBA)	Semi-Residential or Commercial (dBA)
Daily except Sundays and legal holidays: 7:00 a.m. to 8:00 p.m.	60	65	70
Daily 8:00 p.m. to 7:00 a.m. and all day Sunday	50	55	60
Source: County of Los Angeles, Municipal Code, Chapter 12.08 Noise Control, 1999			

2. Business Structures.

a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment: Daily, including Sundays and legal holidays, all hours: maximum of 85 dBA.

C. All mobile or stationary internal-combustion-engine powered equipment or machinery shall be equipped suitable exhaust and air-intake silencers in proper working order.

D. In case of a conflict between this noise ordinance and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities shall control.

3.11.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to agricultural resources are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b. Expose people to or generate excessive groundborne vibration or groundborne noise levels

c. Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

d. Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels

f. For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels

Direct Impacts

Threshold: *Would the project expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

RWMP Components

Construction (Short-Term) Impacts

Construction of the proposed components of the RWMP would occur sporadically over a span of 25 years. The noise level associated with the construction of the proposed RWMP would vary during the construction period, depending upon the construction phase. The first phase, site preparation, is generally the noisiest and has the shortest duration. Activities during this phase include excavation, earth-moving and soils compaction. High groundborne noise levels and other miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, compactors, scrapers and other heavy-duty construction equipment.

In addition to construction noise from the RWMP site, the construction periods would also cause increased noise along access routes to the site due to movement of equipment and workers to and from on the site. The primary heavy construction equipment and vehicles are expected to be moved on-site during the initial construction period and would have a less than significant

short-term noise impact on nearby roadways. Daily transportation of construction workers would not be a substantial percentage of current daily traffic volumes in the area and would not be anticipated to increase traffic noise levels by more than 1 dBA.

During the RWMP implementation process, adjacent sensitive receptors would be exposed to sporadic high noise levels and groundborne vibration associated with remediation and construction activities. Table 3.11-4 indicates the noise levels associated with construction equipment.

TABLE 3.11-4
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Type of Equipment	A-Weighted Sound Level (dBA at 50 Feet)
Front Loaders	71 – 96
Backhoes	71 – 94
Tractors	73 – 96
Scrapers, graders	76 – 96
Trucks	69 – 96
Generators	69 – 83
Pneumatic wrenches	83 – 89
Jackhammers and drills	76 - 98
Source: Harris, Cyril, Handbook of Noise Control Measures, 1979.	

A reasonable worst-case assumption is that the three loudest pieces of equipment would operate simultaneously and continuously over at least one hour within a focused area of 15 yards of each other. The combined sound level of three of the loudest pieces of equipment (scraper, bulldozer, and heavy truck) is 92 dBA measured at 50 feet from the noise source.[1] Table 3.11-5, which assumes this worst-case combined source level, summarizes predicted noise levels at various distances from an active construction site. These estimations of noise levels take into account distance to receptor attenuation, attenuation from molecular absorption, and anomalous excess attenuation. Construction noise would be most noticeable during the initial months of site-intensive grading. The primary sources of acoustical disturbance would be random incidents, which would last less than one minute, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts.

TABLE 3.11-5
ESTIMATED CONSTRUCTION NOISE IN THE PROJECT AREA

Distance to Receptor (feet)	Sound Level at Receptor (dBA)
50	92
100	86
200	80
400	73
600	69
800	67
1,000	64
1,500	60
The following assumptions were utilized: *Basic sound level drop-off rate: 3.0 dB per doubling distance*	

[1] Note, that these levels are for normal throttle and operating conditions, and could be louder if the equipment is operated under full load. Additionally, other pieces of equipment which do not typically operate on a continuous basis (i.e., drills and jackhammers) could produce sporadic higher noise levels.

Distance to Receptor (feet)	Sound Level at Receptor (dBA)
Molecular absorption coefficient: 0.7 dB per 1,000 feet *Analogous excess attenuation: 1.0 dB per 1,000 feet* *Reference sound level: 92 dBA* *Distance for reference sound level: 50 feet* *Simultaneous operation of 1 scraper, 1 heavy truck, and 1 bulldozer*	

Construction activities may exceed the City of Santa Clarita's Noise Ordinance standards. As previously discussed, the City's Municipal Code, Chapter 11.44, *Noise Limits*, establishes noise standards in various land use zones during daytime (7:00 a.m.–10:00 p.m.) and nighttime (10:00 p.m.–7:00 a.m.) periods. For residential zones, the base noise levels are 65 dBA during the daytime period and 55 dBA during the nighttime period.

Sensitive receptors may occur within the vicinity of the proposed RWMP facilities and construction activities may be located adjacent to sensitive receptors, including schools, hospitals, and residential areas. As previously discussed, CLWA is not subject to local building ordinances. CLWA would not need a building permit and therefore would not be bound by the construction time limits in the City of Santa Clarita's Noise Ordinance. However, construction activities will be performed in accordance with the guidelines set forth in the City and County noise ordinances to minimize construction noise impacts, as specified in Regulatory Requirement 3.11-1 and Mitigation Measures 3.11-1. To further minimize any extraneous construction noise impacts on such receptors, the proposed RWMP would require noise attenuating buffers near residential areas, place mufflers on equipment engines, and orient stationary sources to direct noise away from sensitive uses, as specified in Mitigation Measures 3.11-4, 3.11-5, and 3.11-6.

However, these mitigation measures may not reduce temporary construction noise to 65 dBA if the activities are adjacent to residential areas, which is the standard for those areas in the City of Santa Clarita's Noise Ordinance. Therefore, temporary construction-related noise impacts would be considered significant and unavoidable

Operational (Long-Term) Noise Impacts

As mentioned in Section 2.0, Project Description of this report, the RWMP would include facilities connecting the recycled water suppliers to the distribution facilities that include pump stations, pipelines and other storage reservoirs. Operational noise would mainly consist of stationary noises, since the proposed RWMP is not a traffic-generating project, with the exception of occasional maintenance-related traffic. Thus, significant traffic related noise impacts would not occur. Additionally, all facilities would be constructed according to industry standards and according to the City and/or County noise ordinance requirements, which would ensure that any groundborne vibration would not be excessive or significant. Noise impacts resulting from each of the separate RWMP components is discussed below.

Recycled Water Pump Stations and Booster Pump Station

An existing water pump station is located at the Valencia WRP and the pump station is currently sized at 4,000 gallons per minute (gpm). Assuming a constant flow rate and total daily flow equivalent to the peak day demand, the ultimate pumping capacity is expected to be 12,000 GPM. A second recycled water pump station would need to be constructed at the Berry Petroleum oil field facility, which would have a capacity of 1,250 GPM and be located in the 1,680-elevation service zone. The RWMP recommends one booster pump station in the 1,680-elevation service zone to increase system delivery pressures. The existing Honby Pump Station (5,000 GPM capacity) would be taken out of potable water service within the next few

years and could be modified to provide recycled water service. In addition, users with pressures less than 55 pounds per square inch (psi) may require independent booster pump stations.

As shown in Table 3.11-6, typical operating conditions for pump stations result in noise levels that may range from 73 dBA to 80 dBA at 50 feet from the pump station, depending on the size of the engine. According to the City of Santa Clarita, noise levels at residential areas and other sensitive receptors should not exceed 55 dBA during the night and 65 dBA during the daytime. For commercial and manufacturing areas, maximum noise levels should not exceed 80 dBA during the daytime and 70 dBA during the night. Currently, the proposed pump stations would be located at the Valencia WRP, the Berry Petroleum Oil field and the Honby station. The exact locations of the proposed pump station are subject to change based upon final design of the RWMP.

TABLE 3.11-6
STATIONARY EQUIPMENT NOISE LEVELS

Equipment Type	Horsepower	Nominal Noise Levels at 50 feet (dBA Leq)
Compressors	100	78
	200	81
Generators	20	74
	400	81
	1300	84
Pumps	25	73
	200	76
	350	80
Source: Wieland Associates, 1999		

Typical pump station noise attenuation features, include the following: 1) enclosing the pumps within a concrete and masonry building, fully grouted with appropriate wall thickness; 2) sound attenuating panel insulation installed on the roof; and 3) ventilation system designed to mitigate the noise from normal pump operation. Noise enclosures provide as much as 10-15 dBA attenuation depending on the type of noise absorption materials.

Operation of the proposed pump stations would also include the following maintenance procedures:

- Conduct routine operation maintenance checks;
- Conduct routine general pump station cleaning and maintenance;
- Perform routine maintenance of pump station exteriors;
- Routinely test pumps during non-emergency periods, verify operational readiness under anticipated full emergency project head;
- Annually perform major maintenance and clean-up; and
- Service motor cooling system (emergency pumps), replace pump seals, paint pump station and equipment, and disassemble pumps to inspect bearing and impeller (recirculation pumps, emergency pumps) on an as needed basis.

The amount of noise radiated from the wall surfaces and ventilation system of any given pump housing is controllable over a reasonably wide range of frequencies. Typically, a pump station

housing is designed to limit near field (within a close radius) noise levels ranging from 85 to 93 dBA. Pump stations located within 500 feet of sensitive receptors (i.e., residential homes, schools, or hospitals) should be designed not to exceed the 55 dBA at the sensitive receptor property line per the City of Santa Clarita's noise standards. Should pump stations be located within the jurisdiction of the County of Los Angeles, the facilities located within 500 feet of a sensitive use should be designed not to exceed 45 dBA at the property line of the sensitive receptors. Note that these noise limitations are for steady-state, base load operations, and exclude startups, shutdowns, and off-normal or emergency conditions. Implementation of the noise reduction measures where applicable, as discussed above and presented in Mitigation Measures 3.11-2 and 3.11-3, would reduce noise impacts from the pump stations to a less than significant level.

Storage Reservoirs

The reservoir tank locations are conceptual in nature, and likely to change when siting studies are concluded. However, certain characteristics of the reservoir tanks are known. For instance, it is known that the reservoir tanks will need to be located at elevations of approximately either 1,430 feet or 1,680 feet above sea level. The reservoirs are assumed to be above-ground steel tanks ranging in size from 1.5 million gallons (MG) to 3.5 MG. Total storage capacity for the system would be 24.5 MG. Two-way flow altitude valves would control recycled water entering and exiting the storage reservoirs.

Operations at storage reservoirs are not considered significant noise generators. Storage reservoirs would require scheduled maintenance, which would result in short-term random incidences that would not result in an increase of ambient noise levels within the surrounding area. Thus, impacts associated with storage reservoirs are not anticipated to be significant.

Distribution System

Where possible, the distribution routes are located along existing public rights-of-way and planned roadways to maintain accessibility and minimize the costs of acquiring pipeline easements. The distribution system consists of a total of approximately 275,000 linear feet (LF) of pipe ranging from 8 to 36 inches in diameter. The proposed recycled water distribution system crosses the Santa Clara River in three locations: McBean Parkway, The Old Road, and Sierra Highway. The RWMP recommends that the pipelines be supported from existing bridge crossings. Pipelines cross I-5 at Rye Canyon Road and Valencia Blvd, and SR-14 (Antelope Valley Freeway) at Berry Petroleum Road. Air release valves would be installed at the high points of the distribution system to remove trapped air, and blow off valves would be installed at the low points of the distribution system to remove sediment.

Operation of the pipeline facilities would not result in significant noise impacts since these facilities would be located below ground surface, except for valves, etc. The following are general pipeline and interconnection operation and maintenance procedures:

- Weekly visual inspection of pipeline alignments;
- Mowing within pipeline alignments;
- Grading of access roads as needed;
- Testing and servicing of blow-off valves, air/vacuum relief valve assemblies as needed;
- Yearly walking of pipeline alignment and inspection of cathodic protection system;
- Pressure testing pipeline, painting pipeline appurtenances, repairing tunnel entrances, and repairing minor leaks in buried pipeline joints or segments (when necessary)

Sound associated with pipeline maintenance would result in short-term random incidences that would not result in an increase of ambient noise levels within the surrounding area. In addition, pipeline work would be limited to daylight hours in order to avoid disturbing any sensitive receptors, as specified in Mitigation Measures 3.11-2 and 3.11-3. Therefore, potential impacts would be less than significant.

Aquifer Storage and Recovery

The RWMP recommends the ASR option for seasonal storage. ASR facilities may include the use of pump stations, wellheads, or other mechanical equipment. Any pump stations or wellheads associated with possible ASR facilities would be subject to Mitigation Measures 3.11-2 and 3.11-3. Therefore, impacts from ASR facilities would be considered less than significant.

Northwest Spur Pipeline

Construction (Short-Term) Impacts

As illustrated in Figure 2-5 in the Project Description, the Northwest Spur Pipeline would be constructed in an area consisting of vacant land, and commercial and industrial facilities. As indicated within Table 3.11-5, noise levels at 50 feet of the construction equipment would be approximately 92 dBA. The Northwest Spur Pipeline is entirely located within the County of Los Angeles and therefore construction would be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. Additionally, construction activities are temporary and of short-duration and no components of the NWSP are adjacent to sensitive receptors. Compliance with Regulatory Requirement 3.11-1 would ensure that impacts associated with construction of the Northwest Spur Pipeline would be less than significant.

Operational (Long-Term) Noise Impacts

The Northwest Spur Pipeline would be located entirely within the County of Los Angeles on the west side of I-5. As previously discussed, pipeline operations would not result in significant noise generation. Typical noise resulting from the operation of pipelines would result from maintenance activities. Noise associated with pipeline maintenance would result in short-term random incidences and would not result in a significant increase in ambient noise levels within the surrounding area. In addition, pipeline work would typically occur during daylight hours. A less than significant impact would occur.

The CLWA would also construct and operate three new booster pump stations in order to boost pressure back up to the nearby CLWA service zone pressure. The pumps would be housed in single-story structures of approximately 1,000 square feet in size. The pumping plants would be designed with a capacity of approximately 9,000 gpm. As the pumps would be fully enclosed within the pump station structures, and there are no sensitive receptors in the vicinity, noise-related impacts would be less than significant.

Threshold: *Would the project expose people to or generate excessive groundborne vibration or groundborne noise levels?*

Construction (Short-Term) Impacts

As previously discussed, high groundborne noise levels and other miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, compactors, scrapers and other heavy-duty construction equipment. During the RWMP implementation process, adjacent sensitive receptors would be exposed to sporadic

high noise levels and groundborne vibration associated with remediation and construction activities. However, implementation of Regulatory Requirement 3.11-1 and Mitigation Measure 3.11-1 would reduce impacts associated with construction to less than significant levels. The Northwest Spur Pipeline is not adjacent to any sensitive receptors and impacts due to excessive groundborne vibration or groundborne noise levels would be less than significant.

Operational (Long-Term) Noise Impacts

Operation of the RWMP pipeline facilities would not result in significant noise impacts since these facilities would be located below ground. Operations at storage reservoirs are not considered significant noise generators. Operations at the pump stations/booster pump stations would generate noise, but these facilities would not generate excessive groundborne vibrations or noise levels. These facilities would be constructed according to industry standards, which would ensure that any groundborne vibrations would not be excessive or significant. Additionally, the recycled water pump stations are currently planned for location on industrial properties and would not be directly adjacent to sensitive receptors. Furthermore, implementation of the Mitigation Measures 3.11-2 and 3.11-3, where applicable, would reduce noise impacts from the pump stations to a less than significant level. The recycled water supply, distribution system, Northwest Spur Pipeline, and the ASR would have no impact on groundborne vibration or noise levels.

Threshold: *Would the project create a substantial permanent increase or a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Construction (Short-Term) Impacts

In general, construction activities would result in short-term increases in ambient noise levels for all components of the RWMP. However, as previously discussed, implementation of recommended mitigation measures would reduce impacts associated with construction to less than significant levels.

Operational (Long-Term) Noise Impacts

The proposed project is not traffic-generating, with the exception of occasional maintenance-related traffic, and would not substantially increase ambient traffic noise levels. Storage reservoirs would require scheduled maintenance, which would result in short-term random incidences, but would not result in a permanent increase of ambient noise levels within the surrounding area. Thus, ambient noise impacts associated with storage reservoirs would not be significant. The pump stations and the booster pump stations, as well as the wellheads at the ASR, have the potential to increase surrounding ambient noise levels through operational activities. However, implementation of Mitigation Measures 3.11-2 and 3.11-3, where applicable, would reduce noise impacts from the pump stations to a less than significant level. Operation of the recycled water supply, distribution system, and Northwest Spur Pipeline would not result in significant increases to ambient noise levels.

Threshold: *Would the project create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Construction (Short-Term) Impacts

As previously discussed, construction activities would result in short-term increases in ambient noise levels for all components of the RWMP. Sensitive receptors may occur within the vicinity of the proposed RWMP facilities and construction activities may be located adjacent to sensitive

receptors, including schools, hospitals, and residential areas. Construction activities will be performed in accordance with the guidelines set forth in the City and County noise ordinances to minimize construction noise impacts, as specified in Regulatory Requirement 3.11-1 and Mitigation Measures 3.11-1. Additionally, the proposed RWMP would require noise attenuating buffers near residential areas, place mufflers on equipment engines, and orient stationary sources to direct noise away from sensitive uses, as specified in Mitigation Measures 3.11-4, 3.11-5, and 3.11-6.

However, these mitigation measures may not reduce temporary construction noise to 65 dBA if the activities are adjacent to residential areas, as which is the standard for those areas in the City of Santa Clarita's Noise Ordinance. Therefore, the project may result in temporary or periodic increases in ambient noise levels that would be considered significant and unavoidable.

Operational (Long-Term) Noise Impacts

Operation of the RWMP would not result in temporary or periodic increases to ambient noise levels. None of the proposed RWMP facilities would be operated in a manner that would generate noise on a temporary or periodic basis and impacts would be less than significant.

Threshold: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The nearest public use airport to any of the RWMP components is the Agua Dulce Airpark, located at 33638 Agua Dulce Canyon Road in Santa Clarita, which is located outside of the CLWA service area. Neither the construction nor the operation of the RWMP components would expose people to excessive noise levels.

Threshold: *For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

The nearest public use airport is located outside of the CLWA service area. Neither the construction nor the operation of the RWMP components would expose people to excessive airport-related noise levels.

Indirect Impacts

The implementation of the RWMP would not result in any indirect noise impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.11.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

RR 3.11-1 For facilities being constructed within the County of Los Angeles, the construction contractor shall limit exterior construction related activities to the hours of 7:00 a.m. and 7:00 p.m. on weekdays and Saturdays. Construction shall not occur on Sundays or Federal holidays and shall be conducted in

compliance with the County Code, Chapter 12.08 Noise Control. Operation of all RWMP components shall be in compliance with the County Code, Chapter 12.08 Noise Control.

Mitigation Measures

MM 3.11-1 For facilities being constructed within the City of Santa Clarita, the construction contractor shall limit exterior construction related activities to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and 8:00 a.m. and 6:00 p.m. on Saturday. Construction shall not occur on Sundays or Federal holidays. Operation of all RWMP components shall be in compliance with the City's Municipal Code, Chapter 11.44, *Noise Limits*.

MM 3.11-2 The contractor shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Where possible, noise-generating equipment shall be shielded from nearby noise-sensitive receptors by noise-attenuating buffers. Stationary noise sources located less than 500 feet from noise-sensitive receptors shall be equipped with noise reducing engine housings. Portable acoustic barriers shall be placed around noise-generating equipment that is located less than 200 feet from noise sensitive receptors.

MM 3.11-3 The contractor shall assure that construction equipment powered by gasoline or diesel engines have sound control devices at least as effective as those provided by the original equipment manufacturer (OEM). No equipment shall be permitted to have an un-muffled exhaust.

MM 3.11-4 The contractor shall assure that noise-generating mobile equipment and machinery are shut-off when not in use.

MM 3.11-5 Residences within 500 feet of a construction area shall be notified of the construction schedule in writing, prior to construction. The CLWA and the contractor shall designate a noise disturbance coordinator who would be responsible for responding to complaints regarding construction noise. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance coordinator shall be conspicuously placed on construction site fences and written into the construction notification schedule sent to nearby residences.

MM 3.11-6 Pump stations located within 150 feet of sensitive receptors (i.e., residential homes, schools, or hospitals) shall have a noise study conducted to verify that the design will meet the City or County noise standards. Note that these noise limitations are for steady-state, base load operations, and exclude startups, shutdowns, and off-normal or emergency conditions.

3.11.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, potentially significant operational noise impacts would be reduced to levels less than significant. However, temporary construction-related impacts would be significant and unavoidable.

3.12 POPULATION AND HOUSING

This section of the EIR analyzes potential impacts related to population growth or the displacement of people and homes as a result of the proposed project. The analysis is based on information presented in the *One Valley One Vision* planning effort to prepare the Santa Clarita Valley General Plan and the 2005 CLWA Urban Water Management Plan.

3.12.1 ENVIRONMENTAL SETTING

One Valley One Vision (OVOV) was a joint planning effort by the City of Santa Clarita and the Los Angeles County Department of Regional Planning. Based on SCAG 2004 Regional Transportation Plan (RTP) projections, an adjusted projection of the Santa Clarita Valley's population and employment statistics through 2030 was developed. Table 3.12-1 details the population and employment forecasts for the Santa Clarita Valley through 2030, as presented in the 2005 CLWA Urban Water Management Plant (UWMP).

TABLE 3.12-1
ADJUSTED SANTA CLARITA VALLEYWIDE GENERAL PLAN

Jurisdiction	2000	2005	2010	2015	2020	2025	2030	Change	Average Annual Growth
City of Santa Clarita									
Population	151,088	171,290	196,680	210,280	222,290	232,830	242,620	91,532	1.6%
Households	50,787	55,614	62,837	67,832	72,883	77,868	82,806	32,019	1.6%
Employment	51,380	59,640	68,820	73,240	77,490	81,460	85,190	33,810	1.7%
Jobs/Housing Ratio	1.01	1.07	1.10	1.08	1.06	1.05	1.03	0.02	
Persons/Household	2.97	3.08	3.13	3.10	3.05	2.99	2.93	(0.04)	
SCV Unincorporated Area									
Population	61,523	78,053	105,094	125,850	146,401	166,557	185,589	124,066	3.7%
Households	17,973	20,645	28,108	34,609	41,154	47,941	54,630	36,657	3.8%
Employment (estimated)	10,790	13,900	18,830	23,190	27,980	33,080	38,240	27,450	4.3%
Jobs/Household Ratio	0.60	0.67	0.67	0.67	0.68	0.69	0.70	0.10	
Persons/Household	3.42	3.78	3.74	3.64	3.56	3.47	3.40	(0.03)	
SCV Planning Area									
Population	212,611	249,343	301,774	336,130	368,691	399,387	428,209	215,598	2.4%
Households	68,760	76,259	90,945	102,441	114,037	125,809	137,436	68,676	2.3%
Employment	62,170	73,540	87,650	96,430	105,470	114,540	123,430	61,260	2.3%
Jobs/Housing Ratio	0.90	0.96	0.96	0.94	0.92	0.91	0.90	(0.01)	
Persons/Household	3.09	3.27	3.32	3.28	3.23	3.17	3.12	0.02	

Source: CLWA 2005c (Table 2-7).

3.12.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to population and housing are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Direct Impacts

Threshold: *Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The use of recycled water would not directly impact population or housing, although population and housing could be indirectly affected by implementation of the RWMP because the use of recycled water would remove an obstacle to population growth. Based on the estimated municipal water demand of approximately 89,300 acre-feet (af) in the CLWA service area in 2005 (CLWA 2005c) and a Santa Clarita Valley planning area population of approximately 249,343 persons (based on projected 2005 City and unincorporated area populations), it was determined that 1 af serves approximately 2.8 persons annually (249,343 persons/89,300 af per year = 2.8 persons per af per year). This planning factor represents the water needed for both residential and non-residential urban uses.

Thus, it is assumed that the proposed project could indirectly serve a population of approximately 43,960 persons (15,700 af/yr ×2.8 = 43,960 persons/year). Using a unit factor of 3.27 persons per household (CLWA 2005c), it is expected that the project could eventually make enough potable water available to service approximately 13,443 additional housing units (43,960 persons÷3.27 persons per household = 13,443). Potential indirect impacts on population and housing growth from implementation of the Recycled Water Master Plan are addressed in Chapter 4.0, Growth-Inducing and Growth-Related Impacts.

Threshold: *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

Construction and operation of RWMP components would not displace any persons or housing because no existing housing structures would be impacted. The proposed project would result in no impacts related to the need to construct replacement housing.

Threshold: *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

Construction of the RWMP components would not displace any persons or housing. The proposed project would result in no impacts related to the need to construct replacement housing.

Indirect Impacts

Potential indirect impacts on population and housing growth from implementation of the RWMP are addressed in Chapter 4.0, Growth-Inducing and Growth-Related Impacts.

3.12.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

None

Mitigation Measures

None required.

3.12.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Impacts to population and housing resulting from the implementation of the RWMP would be less than significant.

3.13 PUBLIC SERVICES

This section of the EIR analyzes the proposed project's demand on police and fire protection, schools, and library services and whether this demand would create the need to construct new facilities that could impact the environment.

3.13.1 ENVIRONMENTAL SETTING

Police Protection

The Los Angeles County Sheriff's Department provides law enforcement services to the unincorporated areas of Los Angeles County and to the City of Santa Clarita via contract. Over 140 deputy sheriffs currently staff the Santa Clarita Sheriff's Station. With a planning standard of one deputy per 1,000 residents, the current ratio is well within the planning range. The station includes a jail with beds for 8 females and 31 males and is equipped with a Helicopter, a K-9 unit, a Search and Rescue team, a Mobile Command Post, and a Detective Unit. The Sheriff's Department provides traffic services within the limits of the City of Santa Clarita, while the California Highway Patrol (CHP) provides service to the unincorporated portions of the CLWA service area (CLWA 2004d).

Fire Protection

The Consolidated Fire Protection District (Los Angeles County Fire Department, Battalion 6) provides fire-protection services in the Santa Clarita Valley, both in the unincorporated portions of Los Angeles County and in the City of Santa Clarita. Battalion 6 has ten stations; eight are in the Santa Clarita Valley and two are in Gorman and Chatsworth. The eight stations located in the Santa Clarita Valley maintain nine engines, one truck, three paramedic squad cars, one water tender, and one helicopter with a paramedic team. Additional resources and staff are utilized for emergency back-up situations or as needed according to fire-hazard levels throughout the year. The County Fire Department has planned for 11 additional stations in the City of Santa Clarita by 2007 or 2008, but the timing of these stations depends on the pace of development since developer fees fund new station construction. Angeles National Forest personnel provide wildland fire protection services to the Santa Clarita Valley and its vicinity (CLWA 2004d).

Schools

The Santa Clarita Valley has five school districts serving grades K–12. Based on conversations with school officials for the 2004 CLWA EIR for the transfer of 41,000 af of State Water Project (SWP) water (and as noted in Table 3.13-1), all school districts are at capacity or are experiencing overcrowding. Table 3.13-1 provides a list of school districts and enrollments within the area. No schools are located in the portion of the CLWA service area that is in Ventura County (CLWA 2004d).

TABLE 3.13-1
SCHOOL FACILITIES IN THE CLWA SERVICE AREA

School District	Number and Type of Schools	Grades Served	Enrollment
Castaic Union School District	3 elementary 1 middle school	K–8	3,3983
Newhall School District	10 elementary	K–6	6,547
Saugus Union School District	15 elementary	K–6	10,046

TABLE 3.13-1 (Continued)
SCHOOL FACILITIES IN THE CLWA SERVICE AREA

School District	Number and Type of Schools	Grades Served	Enrollment
Sulphur Springs School District	8 elementary	K–6	5,466
William S. Hart Union High School District	6 junior high 6 high school 1 continuation school 5 alternative sites	7–12	18,622
Source: *CUSD 2003, NSD 2005, SUSD 2005, SSSD 2005, WSHUHSD 2005.*			

Library Services

Three libraries operated by the County of Los Angeles Libraries Department serve the residents of the Santa Clarita Valley: the Canyon Country Library, the Newhall Library, and the Valencia Library (Table 3.13-2). In 1998, the three libraries did not meet the planning standard of 1.7 square feet of library space per capita. The County currently uses a planning standard of two material items per capita and 0.389 gross square feet of space per capita. A recently completed service area analysis for the three Santa Clarita libraries using 2000 population data indicated that:

- The Valencia Library has an adequate materials collection and a facility space deficit of 13,737 square feet.
- The Newhall Library has an adequate materials collection and a facility space deficit of 7,776 square feet.
- The Canyon Country Library has a materials deficit of 62,229 and a facility space deficit of 15,419 square feet (CLWA 2004d).

TABLE 3.13-2
LIBRARY FACILITIES IN THE CLWA SERVICE AREA

Library	Number of Books*	Size of Library (square feet)
Canyon Country Library	102,640	17,000
Newhall Library	81,117	4,842
Valencia Library	280,617	23,966
Source: County of Los Angeles Public Library 2005.		

Overall, there is currently a total deficit of 36,932 square feet in the combined service areas of these libraries. With projected population growth for the Santa Clarita Valley by the year 2010, Santa Clarita libraries would need approximately 65,000 more square feet of space. Alternative funding sources for all libraries in the project area include Mello-Roos Community Facilities Districts, developer impact fees and agreements imposed by Los Angeles County, and property taxes (CLWA 2004d).

3.13.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to public services are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, and other public facilities (library services).

Direct Impacts

Threshold: *Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, and other public facilities (library services).*

The implementation of the RWMP would not result in direct population growth requiring additional public facilities, as the recycled water supply would not be used for potable residential purposes. Implementation of the RWMP would not require the provision of new or physically altered governmental facilities or result in the need for new or physically altered governmental facilities.

Indirect Impacts

The implementation of the RWMP would not result in any indirect impacts on public services. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.13.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

None

Mitigation Measures

None required.

3.13.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Impacts to public services resulting from the implementation of the RWMP would be less than significant.

3.14 RECREATION

This section of the EIR analyzes the potential impacts to recreational facilities from implementation of the proposed project.

3.14.1 ENVIRONMENTAL SETTING

Recreational resources in the CLWA service area consist of state, county/regional, and local parks and designated regional and local recreational trails. The Los Angeles County Department of Parks and Recreation provides local parks and recreation facilities for northwestern Los Angeles County residents and provides regional parks for all residents of the County. The City of Santa Clarita provides local parks within the City boundaries. Los Angeles County has determined that there is a county-wide shortage of local parkland, including portions of the Santa Clarita Valley (CLWA 2004d).

Regional recreation areas under the control of the federal government include the Angeles National Forest, the Los Padres National Forest, and the Santa Monica Mountains National Recreation Area (CLWA 2004d). The Castaic Lake State Recreation Area, located at the northern end of the Santa Clarita Valley, is home to one of the largest State Water Project (SWP) reservoirs in southern California. Castaic Lake's recreational facilities were built by the Department of Water Resources (DWR) and the State Department of Parks and Recreation, but the 8,000-acre park is operated and maintained by the Los Angeles County Department of Parks and Recreation. The facility consists of two separate lakes: the main reservoir and the lagoon/afterbay.

3.14.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to recreational facilities are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

b. Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Direct Impacts

Threshold: *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The implementation of the RWMP would not directly result in short-term or long-term population growth in the CLWA service area, and therefore would not directly increase the use of recreational facilities. There would be no impacts to recreation facilities.

Threshold: *Would the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?*

The implementation of the RWMP does not include or require the construction or expansion of recreational facilities. Therefore, there would be no impacts to recreational facilities.

Indirect Impacts

The implementation of the RWMP would not result in any indirect recreation impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.14.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

None

Mitigation Measures

None required.

3.14.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

There would be no impacts to recreation resulting from the implementation of the RWMP.

3.15 TRANSPORTATION AND TRAFFIC

This section of the EIR analyzes potential impacts to traffic, circulation, emergency access, and parking as a result of the proposed project.

3.15.1 ENVIRONMENTAL SETTING

The primary agency responsible for the planning, design, construction, and operation of regional transportation systems in the Santa Clarita Valley is Caltrans District 7. Local roadways are under the jurisdiction of the City of Santa Clarita and/or Los Angeles County. Two regional freeways serve the Santa Clarita Valley area. Interstate 5 (I–5) traverses the area in a north-south direction on the west side of the City of Santa Clarita and continues south through the Los Angeles metropolitan area. State Route 14 (SR–14) serves the eastern part of the area and beyond, connecting to the communities of Palmdale and Lancaster. State Route 126 (SR-126) traverses Ventura County in an east-west direction and continues to Los Angeles County, intersecting with I–5 near Santa Clarita (CLWA 2004d).

The highway and roadway system in the Santa Clarita Valley is being modified in response to local and regional development projects, and Caltrans has developed long-range plans for state highways in this area based on projected travel demand over a 20-year period. I–5, which has 8 lanes from SR–126 to SR–14, is projected to need 2 additional high occupancy vehicle (HOV) and 2 additional truck lanes to meet future traffic volumes. In general, traffic volumes increased between 1998 and the present since the population increased during this period (CLWA 2004d).

The closest commercial airport to the CLWA service area is the Burbank-Glendale-Pasadena Airport, approximately 15 miles from Valencia. Passenger bus service is available to most of the service area and is provided by Greyhound, Amtrak, and Santa Clarita Transit. Santa Clarita Transit provides transportation services connecting the communities of Castaic, Val Verde, Valencia, Saugus, Friendly Valley, Canyon Country, and Newhall and express service to downtown Los Angeles. In addition, three Metrolink rail stations are located within the CLWA service area (CLWA 2004d).

3.15.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to transportation and traffic are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it would:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

e. Result in inadequate emergency access.

f. Result in inadequate parking capacity.

g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Direct Impacts

Threshold: *Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?*

There would be no increase in traffic associated with the operation of the RWMP components (with the exception of occasional maintenance-related traffic). The proposed RWMP is not a substantial trip-generating project and would therefore not increase the amount of trips on existing roadways. The vehicle trips associated with the proposed project would primarily include scheduled maintenance of RWMP components occasionally throughout the year. These limited trips would not pose a significant impact related to increased traffic or the capacity of the street systems.

Construction-related traffic would be generated during construction of the RWMP components. Such traffic includes worker vehicles to and from the worksite and construction vehicles entering and exiting the site. However, the amount of construction-related traffic required to construct the various components of the RWMP would not significantly contribute to the existing traffic flow and would not significantly impact traffic loads or capacity of the street system. For example, construction of a reservoir tank, which would be one of the largest construction projects in the implementation of the RWMP, would likely generate approximately 150–250 construction-related truck trips over the course of construction (approximately six to eight months). This amount of traffic would not be enough to significantly impact street capacity, volume-to-capacity ratios, or congestion at intersections. Therefore, although the project's construction activities would result in a temporary increase in existing traffic, it would not constitute a substantial increase, so impacts would be less than significant. Once construction activities are complete, traffic would revert to the current conditions.

Threshold: *Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

As previously discussed, the operation of the RWMP components would not be trip-generating, with the exception of occasional maintenance trips. Therefore, the project would not individually or cumulatively affect level-of-service standards. Construction activities would temporarily increase traffic associated with worker trips and construction equipment entering and exiting the worksites. However, this temporary increase in traffic would not be enough to exceed level-of-service thresholds for roads or highways so impacts would be less than significant.

Threshold: *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

The nearest public use airport to any of the RWMP components is the Agua Dulce Airpark, located at 33638 Agua Dulce Canyon Road in Santa Clarita, just to the northeast of the CLWA service area. The Federal Aviation Administration (FAA) requires review of any construction plans and specifications for development proximate to airports that exceed certain height criteria. These minimum height requirements include any construction or alteration of more than

200 feet above ground level and/or a height greater than an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway (Caltrans, Aeronautics Division 2002).

The tallest structures proposed in the RWMP would be the reservoir tanks, which would not be tall enough to interfere with airport operations or air traffic patterns. The operation of the RWMP system would not involve substantial night lighting, smoke-producing activities, or other facets of a project's operation that could conceivably interfere with air traffic. Therefore, the RWMP would result in no impact related to air traffic patterns or air safety due to the location of the RWMP components.

Threshold: *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The operation of the RWMP would not generate any hazards due to design features or incompatible uses because the facilities would not alter roadway alignments or generate traffic. The construction of the RWMP components could create roadway hazards due to temporary construction activities within roadways that would impact normal traffic flow. For example, construction of the distribution system would require excavations and trenching within existing roadways, which would require traffic to be re-routed around the construction site. Therefore, construction activities have the potential to temporarily increase roadway hazards. With the incorporation of Mitigation Measure 3.15-1, which requires the development of a Traffic Control Plan, pursuant to City of Santa Clarita or County of Los Angeles requirements, would reduce potential impacts to less-than-significant levels.

The distribution system of the RWMP has portions located within Caltrans jurisdiction. As previously discussed, the regional transportation system, including I–5 and SR–126, are within the jurisdiction of Caltrans. Therefore, any construction activities that could impact Caltrans jurisdiction must obtain an Encroachment Permit. Additionally, a Construction Management Plan must be prepared and submitted to Caltrans for approval if construction activities would result in land closures, detours, or parking restrictions within Caltrans jurisdiction. With the incorporation of Regulatory Requirement 3.15-1, which requires a Caltrans Encroachment Permit and a Construction Management Plan for potential impacts to Caltrans right-of-way, potential impacts to Caltrans jurisdiction would be less than significant.

Threshold: *Would the project result in inadequate emergency access?*

The operation of the RWMP would not result in inadequate emergency access because the facilities would not alter roadway alignments. The construction of the RWMP components could temporarily impact emergency access from construction activities within roadways that would impact normal traffic flow. With the incorporation of Mitigation Measure 3.15-1, which requires the development of a Traffic Control Plan, pursuant to City of Santa Clarita or County of Los Angeles requirements, would reduce potential impacts to less-than-significant levels. The Traffic Control Plan would disallow the complete blockage of any roadway due to construction activities.

Threshold: *Would the project result in inadequate parking capacity?*

Operational activities of the RWMP components would not require additional parking because the project is not trip-generating, with the exception of occasional maintenance operations. Therefore, no changes in long-term parking requirements would occur.

Construction activities for all RWMP components would require on-site or off-site parking for workers. Public parking is available on most City and County streets in the vicinity of all RWMP components. Therefore, street parking may be temporarily impacted by worker vehicles. Parking availability impacts would only be temporary in areas immediately adjacent to the project site(s) and only during working hours. No construction would take place on Sundays or holidays. Nevertheless, depending on the amount of worker vehicles required for a construction project and the length of construction, parking availability could be significantly impacted. With the incorporation of Mitigation Measure 3.15-3, which requires an evaluation of off-site parking options, potential parking impacts would be reduced to less–than-significant levels.

Threshold: *Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

Because the operation of the RWMP components would not be trip-generating, with the exception of occasional maintenance traffic, there would be no impact to adopted policies, plans or programs supporting alternative transportation.

Indirect Impacts

The implementation of the RWMP would not result in any indirect traffic impacts. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.15.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

RR 3.15-1 Prior to commencement of construction activities on any phase of the RWMP that would impact Caltrans right-of-way jurisdiction, a Caltrans Encroachment Permit shall be obtained. A standard Caltrans Encroachment Permit application along with six sets of Engineering Plans will be required for Caltrans review and approval. A Construction Management Plan will be written for any lane closures, detours, or parking restrictions within Caltrans right-of-way and provided to Caltrans for approval. Transport of over-sized or over-weight vehicles on state highways will require a Caltrans Transportation Permit.

Mitigation Measures

MM 3.15-1 Prior to construction activities for any phase of the RWMP that would require the diversion of traffic, the CLWA shall prepare a Traffic Control Plan and implement construction zone traffic control measures in compliance with the Work Area Traffic Control Handbook (WATCH) Manual or the Manual on Uniform Traffic Control Devices (MUTCD) standards. If project construction requires special measures outside the WATCH Manual or MUTCD standards, then the Traffic Control Plan shall be prepared by, stamped, and signed by a registered Traffic Engineer.

MM 3.15-2 Prior to commencement of construction activities on any phase of the RWMP that would require substantial amounts of Construction Worker parking for long periods of time, the CLWA shall consult with the applicable jurisdiction (City of

Santa Clarita or County of Los Angeles) about the availability of off-site parking. When feasible and appropriate, Construction Worker parking shall be consolidated in an off-site location and workers shall be shuttled to the worksite to minimize parking impacts near the work site(s).

3.15.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, potentially significant impacts from implementation of the RWMP to transportation and traffic would be reduced to less-than-significant levels.

3.16 UTILITIES AND SERVICE SYSTEMS

This section of the EIR analyzes the proposed project's demand on solid waste facilities, water treatment facilities, and wastewater conveyance and treatment facilities and whether this demand would significantly burden the affected public utility.

3.16.1 ENVIRONMENTAL SETTING

Wastewater

Santa Clarita Valley and Unincorporated Los Angeles County

Two wastewater treatment facilities managed by the Los Angeles County Sanitation Districts (LACSD) service the Santa Clarita Valley and vicinity: the Saugus Water Reclamation Plant (WRP) and the Valencia WRP. These two WRPs jointly operate a regional system known as the Santa Clarita Valley Joint Sewerage System (SCVJSS). These facilities work jointly to treat the wastewater of the Santa Clarita Valley. The Saugus WRP is currently operating at maximum capacity and will not be expanded in the future. Any excess flows from the Saugus WRP are treated at the Valencia WRP.

Located within District No. 26, the Saugus WRP (completed in 1962) is southeast of the intersection of Bouquet Canyon Road and Soledad Canyon Road. Two subsequent expansions and flow-equalization facilities brought its current design capacity to 6.5 million gallons per day (mgd). The treatment process was brought up to a tertiary level with the addition of dual-media pressure filters in 1987. However, no future expansions are possible due to space limitations at the site. In Fiscal Year (FY) 2002–2003, the Saugus WRP produced an average effluent flow of 5.28 mgd, or 5,914 acre-feet per year (af/yr).

The Valencia WRP is located within District No. 32 and is on The Old Road near Six Flags Magic Mountain Amusement Park. The Valencia WRP was completed in 1967. The existing capacity is 21.6 mgd, following three3 subsequent expansions: construction of a 4.4 million gallon (MG) flow-equalization tank in February 1995; the Stage 4 expansion completed in June 1996, and the Joint Sewerage System Phase I expansion of 9 mgd in 2002. The Phase I expansion is expected to meet the Regional Growth Management Plan forecasted demand through 2010. Phase II, scheduled to be completed in early 2010, will consist of an additional 6 mgd expansion and will increase the SCVJSS treatment capacity to 34.1 mgd, which will be sufficient to meet the demand until 2015. In FY 2002–2003, the Valencia WRP produced an average effluent flow of 13.05 mgd, or 14,628 af/yr. The ultimate total capacity for both the Saugus and Valencia WRPs is 34.1 mgd, or 38,200 af/yr (CLWA 2005c).

Use of recycled water from the Valencia WRP is permitted under RWQCB Order No. 87-48. On July 24, 1996, the CLWA executed an agreement with the Los Angeles County Sanitation Districts (LACSD) to purchase up to 1,700 af/yr of recycled water from the Valencia WRP. In 2002, the CLWA constructed the facilities to deliver this supply to the Westridge Golf Course and initiated deliveries in 2003 (CLWA 2005c).

Unincorporated Ventura County

A package plant located on the north side of SR–126 at its intersection with Hopper Creek provides wastewater treatment service to the residents of the nearby unincorporated areas of Ventura County. This package plant, managed by the Ventura County Public Works, Water and Sanitation Department uses an activated sludge process to service 220,000 gallons of wastewater per day. All treated effluent is discharged into several percolation ponds located on the south side of SR–126 (CLWA 2004d).

Storm Water

Santa Clarita Valley and Unincorporated Los Angeles County

The Los Angeles County Department of Public Works (LADPW) provides storm water services for the Santa Clarita Valley and unincorporated Los Angeles County. The Department of Public Works is responsible for the design, construction, operation, maintenance, and repair of roads, bridges, airports, sewers, water supply, flood control and water conservation facilities, and for the design and construction of capital projects. Additional responsibilities include regulatory and ministerial programs for the County of Los Angeles, Los Angeles County Flood Control District, other special districts, and contact cities that request services. A 24-hour Emergency Operation Center is maintained to respond to problems reported by the public and other agencies to respond to major emergencies (such as floods, windstorms, snowstorms, earthquakes, etc.) and to monitor various LADPW facilities (CLWA 2004d).

Water Treatment

Surface water and groundwater are treated prior to distribution for potable use. Treatment of groundwater within the CLWA service area is generally limited to disinfection and is completed at individual wellhead facilities. Surface water (such as from imported sources) is filtered and disinfected (in compliance with applicable regulations) at either the Earl Schmidt Filtration Plant (ESFP) or Rio Vista Water Treatment Plant (RVWTP). The ESFP recently completed construction to upgrade the treatment process and expand capacity to 56 mgd. The ESFP is located in Castaic, near Castaic Lake, and obtains its raw water supply from State Water Project (SWP) water stored in Castaic Lake. The RVWTP was constructed in the early 1990s with a rated capacity of 30 mgd. The RVWTP is located in Santa Clarita, near Bouquet Canyon Road (CLWA 2004d).

Water treatment capacity is based on peak demand. Current and anticipated operations of the existing and proposed water projection and treatment facilities have a great deal of flexibility to meet peak (summer) demands and non-peak ("baseload" or winter) demands by coordinated use of imported and local groundwater resources and associated treatment facilities. Based on the operations and peaking factors used by the CLWA, the combined capacity of the existing facilities is sufficient to treat approximately 48,200 af for potable use. If these facilities were operated at peak capacity for a full year they would have the capacity to treat approximately 96,300 af/yr. However, the routine operation of the treatment plants at full-rated capacity would not follow sound engineering or operational practices (CLWA 2004d).

Solid Waste Disposal

Waste generated in the CLWA service area is generally hauled by private contractors to public landfills in Los Angeles County. The Chiquita Canyon Landfill and the Sunshine Canyon Sanitary Landfill handle the majority of waste from the Santa Clarita Valley, although numerous other landfills in Los Angeles County also provide service. Landfill capacity available to the CLWA service area is therefore not limited to those facilities in the immediate vicinity.

The LADPW publishes an annual report on the implementation of the Los Angeles County Integrated Waste Management Plan. The most recent publicly available document is the 2003 Annual Report, published in February 2005. This document includes a summary of the current County-wide disposal capacity by landfill (County of Los Angeles Department of Public Works 2005). Additionally, the California Integrated Waste Management Board (CIWMB) maintains the Solid Waste Information Service (SWIS), an online database of the permitted throughput, capacity, and other regulatory information for California solid waste facilities (CIWMB 2005).

The Chiquita Canyon Landfill has a permitted daily throughput of 6,000 tons per day, with a weekly limit of 30,000 tons (Consolidated Disposal Services 2005). As of January 2004, this landfill had a remaining capacity of 15.70 million tons, with an estimated life of 10.18 years (CLADPW 2005). Based on this data, Chiquita Canyon Landfill would have an estimated closure date of 2014. The CIWMB SWIS provides an estimated closure date of 2019 (CIWMB 2005).

The Sunshine Canyon Sanitary Landfill has a permitted daily throughput of 6,600 tons per day (CIWMB 2005). As of January 2004, this landfill had a remaining capacity of 6.10 million tons, with an estimated life of 3.26 years (CLADPW 2005). Sunshine Canyon Sanitary Landfill has an estimated closure date of 2008 (CIWMB 2005).

The County of Los Angeles has recently adopted an ordinance, effective March 6, 2005, that requires all construction projects to recycle at least 50 percent of construction wastes. The ordinance amends Title 20—Utilities of the Los Angeles County Code—by adding Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse).

The ordinance states that at least 50 percent of all construction and demolition (C&D) debris, soil, rock, and gravel removed from a project site must be recycled or reused unless a lower percentage is approved by the Director of Public Works. A Recycling and Reuse Plan (RRP) must be submitted to the Department of Public Works, Environmental Programs Division, after an application for a permit has been filed for a project. The RRP must contain a project description and the estimated total weight of the project C&D debris, with separate estimates for: (1) soil, rock, and gravel; (2) all other inert materials; and (3) all other project C&D debris. The ordinance also requires that annual progress reports be submitted to the Director for review. Therefore, compliance with the County Ordinance would ensure that construction-related impacts to solid waste would be less than significant.

Electrical Power

Southern California Edison (Edison) provides electricity to the CLWA service area. Edison generates electricity from a variety of energy resources, including solar, geothermal, hydroelectric, natural gas, and nuclear. Edison also purchases electricity from independent producers and is part of the Pacific Intertie and the western power supply grid (CLWA 2004d).

The Edison transmission system includes transmission lines of approximately 50 miles in length or greater with a capacity of 220,000 volts, as well as sub-transmission systems with a 66,000 volt capacity, which transmit power from the larger capacity lines to seven existing substations serving the Santa Clarita Valley. The Elizabeth Lake Substation, located in Castaic, serves the ESFP. Edison has a proprietary 10-year plan for the Santa Clarita Valley and has earmarked additional substations and power lines to be built, as needed, depending upon growth in the area. Power consumption in the CLWA service area has likely increased between 1998 and the present since the population increased during this period (CLWA 2004d).

Regulatory Setting

Per Section 53091 of the *California Government Code*, state law does not apply specific local zoning, building, or permit requirements to this type of CLWA project. Although construction and operation associated with the implementation of the RWMP and the Northwest Spur Pipeline would not be subject to the City of Santa Clarita or the County of Los Angeles ordinances, these ordinances are included in the following discussion in acknowledgement of their role in defining what is considered to be locally acceptable mitigation measures.

3.16.2 POTENTIAL IMPACTS

Significance Criteria

The criteria used to determine the significance of impacts to utilities and service systems are based on Appendix G of the State CEQA Guidelines. The proposed project would have a significant environmental impact if it:

a. Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

b. Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

c. Would have insufficient water supplies available to serve the project from existing entitlements and resources, or new or expanded entitlements would be needed.

d. Would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

e. Would be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs.

f. Did not comply with federal, state, and local statutes and regulations related to solid waste.

In addition, because the pump stations and booster pump stations would require electrical power, potential impacts to energy supplies are also discussed. A significant impact to electrical supplies would occur if the proposed project required the construction or expansion of infrastructure to maintain adequate energy supplies.

Direct Impacts

Threshold: *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

The implementation of the RWMP would not contribute to wastewater flows that would require treatment at either the Valencia or Saugus WRP. Therefore, there would be no direct impacts to wastewater treatment requirements.

Threshold: *Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

The implementation of the RWMP would not produce substantial amounts of additional runoff to the existing storm water drainage facilities. There would not be a substantial increase in impervious surfaces from implementation of the RWMP or the Northwest Spur Pipeline, as discussed in Section 3.8, Hydrology and Water Quality. Further, runoff from irrigation would not be increased by the use of recycled water. The proposed project replaces the use of potable water with recycled water, but would not increase the quantity of water used for irrigation and other non-potable purposes. Therefore, impacts to storm water drainage systems would be less than significant.

Threshold: *Would the project have insufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?*

The implementation of the RWMP would not require a potable water supply. Therefore, there would be no direct impacts to water supply.

Threshold: *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The implementation of the RWMP would not contribute to the wastewater stream. Therefore, there would be no direct impacts to wastewater treatment capacity.

Threshold: *Would the project be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Construction of the RWMP would result in a small amount of construction debris from the disposal of excess soils or other debris. However, demolition activities are not required. The nominal amount of construction debris generated by the proposed project would not be expected to exceed the permitted capacity of available landfills in Los Angeles County. Operation of the RWMP would not generate solid waste. Impacts would be less than significant.

Threshold: *Would the project comply with federal, state, and local statutes and regulations related to solid waste?*

As previously discussed, the CLWA is not required to comply with local zoning and building permits and ordinances. However, in order to reduce potential impacts to solid waste facilities that could result from the disposal of construction debris, implementation of Mitigation Measure 3.16-1, which would require construction debris to be disposed of in accordance with all applicable County of Los Angeles and City of Santa Clarita codes and ordinances related to the disposal of construction and demolition debris, would ensure that potential impacts would be less than significant. Operation of the RWMP would not generate solid waste. There would be no significant impacts related to violation of solid waste regulations.

Threshold: *Would the project require new or expanded electrical supply infrastructure in order to maintain adequate energy supplies?*

The pump stations and booster pump stations would require a nominal amount of additional electricity to function. This amount of electricity would not require the construction or expansion of energy supply infrastructure, and impacts would be less than significant.

Indirect Impacts

The implementation of the RWMP would not result in any indirect impacts to utilities and service systems. Potential impacts from population growth that would occur as an indirect impact are addressed in Section 4.0, Growth-Inducing and Growth-Related Impacts.

3.16.3 MITIGATION PROGRAM

Project Design Features

None

Regulatory Requirements

None

Mitigation Measures

MM 3.16-1 The disposal of all construction debris from the implementation of the RWMP shall be conducted in accordance with County of Los Angeles and City of Santa Clarita codes and ordinances related to the disposal of construction and demolition debris, including Los Angeles County Code, Chapter 20.87-Construction and Demolition Debris Recycling and Reuse.

3.16.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of the mitigation program, impacts to utilities and service systems from the implementation of the RWMP would be less than significant.

SECTION 4.0 GROWTH-INDUCING AND GROWTH-RELATED IMPACTS

4.1 GROWTH-INDUCING EFFECTS

4.1.1 CEQA REQUIREMENTS

CEQA Guidelines Section 15126.2(d) states that an EIR must discuss the ways in which a proposed project could:

- foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment;
- remove obstacles to population growth;
- require the construction of new community facilities that could cause significant environmental effects;
- encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The Guidelines further state that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. The analysis below discusses whether the proposed project is growth-inducing and uses the CEQA definition as a guide. Consistency with growth projections, included in local and regional planning documents, is addressed in Chapter 5.0, Consistency with Adopted Plans and Policies.

4.1.2 GENERAL FACTORS AFFECTING POPULATION GROWTH

Growth does not necessarily result from only one project or factor in a community. Rather, several factors affect the location, size, direction, timing, type, and rate of population growth, depending on the region where the community is located. These factors include local government planning, public services, natural resources, economic climate, and political and environmental concerns. City and county planning agencies adopt and administer general and specific plans, zoning maps and ordinances, and other planning documents that contain policies and maps to identify the intensity and type of development that would be allowed in specific locations. As part of the local government development approval process, wholesale and retail water purveyors provide information on their ability to serve additional water users; however, local jurisdictions other than wholesale or retail water purveyors ultimately control development approval decisions.

Although local governments play a role in growth management, the location and timing of growth also depends on economic factors such as the availability and cost of developable land, recessions in local and national economies, interest rates, and demand for housing. Political factors include state and local laws which ensure that businesses to comply with certain rules, regulations, and permitting requirements that address environmental and community concerns. Other political decisions also impact growth, such as alleviation of property taxes as an incentive to lure businesses to certain communities. Quality-of life-issues (such as crime, climate, air quality, traffic and commuting distances), as well as the availability, cost and quality of community services (such as schools, transportation facilities, recreation facilities, and police and fire protection) may also be important factors influencing the timing and location of growth.

The proposed RWMP project would make additional potable water available to a portion of the CLWA service area. Although the availability of potable water is not in and of itself sufficient to cause population growth or development, if sufficient potable water was not available, this would constitute an obstacle to population growth if project proponents were unable to locate an

alternative potable water supply. Therefore, making additional potable water available is considered to be growth-inducing because it would remove an obstacle to population growth.

Because the use of recycled water would remove an obstacle to growth (by freeing up previously used potable water), the proposed project may indirectly foster economic growth, population growth, or the construction of additional housing within the CLWA service area. CEQA Guidelines, Section 15126.2(d) states that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The full 17,400 acre-feet per year (af/yr) of recycled water is not anticipated to become available for approximately 30 years; however, consideration of the ultimate buildout of the RWMP is appropriate for the purposes of this analysis. In order to provide a "worst-case" analysis, it is assumed that all potable water made available by the use of the proposed project's recycled water would be used to serve new population. Because 1,700 af/yr of recycled water has already been approved for use under Phase I of the 1993 Reclaimed Water Master Plan, the RWMP would account for the use of 15,300 af/yr of recycled water that had not previously been available (17,400 – 1,700 = 15,700).

Based on the estimated municipal water demand of approximately 89,300 acre-feet (af) in the CLWA service area in 2005 (CLWA 2005c) and a Santa Clarita Valley planning area population of approximately 249,343 persons (based on projected 2005 City and unincorporated area populations), it was determined that one af serves approximately 2.8 persons annually (249,343 persons÷89,300 af per year = 2.8 persons per af per year). This planning factor represents the water needed for both residential and non-residential urban uses associated with this population.

Therefore, it is assumed that the proposed project could indirectly provide for a population of approximately 43,960 persons (15,700 af/yr ×2.8 = 43,960 persons/year). Using a unit factor of 3.27 persons per household (CLWA 2005c), it is expected that the project could eventually make enough potable water available for approximately 13,443 additional housing units (43,960 persons÷3.27 persons per household = 13,443). Potential indirect environmental impacts from growth that could result from the proposed project are addressed below.

4.2 GROWTH-RELATED IMPACTS

CEQA Guidelines Section 15064(d) requires that an EIR evaluate the indirect impacts of a project. Indirect impacts are those that are caused by a project and are reasonably foreseeable, but that may occur later in time or at some distance from the project site(s). Growth-related impacts are the indirect impacts of population growth or development, such as the conversion of open land to developed land, added traffic, and increased demand for public services.

The CLWA has the responsibility to provide wholesale water to retail purveyors within the CLWA service area, but does not approve the locations of new development. City and county planning agencies are responsible for creating land use plans that direct where development should occur and for approving and enforcing those plans. The proposed project would provide recycled water for irrigation uses, which would decrease corresponding demands on the potable water supply which could, in turn, be used by new development in the CLWA service area. However, the RWMP would not affect the specific locations of planned development. This EIR generally discusses growth-related impacts in a qualitative manner based on the likely changes that could occur as a result of future land use changes and/or specific development projects within the CLWA service area. The analysis below references impacts identified in the Final EIR for the *City of Santa Clarita General Plan* since this document provides the most current and comprehensive overview of environmental impacts resulting from projected growth in the Santa Clarita Valley (City of Santa Clarita 1991).

4.2.1 AESTHETIC/VISUAL RESOURCES

Significant growth-related impacts to aesthetic/visual resources may include changes to the visual characteristics and resources of the area through the development of open space and from further urbanization of hillside and natural areas. Development could result in substantial adverse effects on scenic vistas, substantially damage scenic resources, or substantially degrade the existing visual character or quality of individual sites and their surroundings. Further, potential development within the CLWA service area could also result in an increase in the amount of night lighting and unwanted glare in presently undeveloped areas. Haphazard development could obstruct scenic views within the CLWA service area and contribute to a "confused urban image."

Mitigation Measures

Impacts to aesthetic/visual resources would be reduced if local governments implement existing policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans. Table 4.2-1 provides a listing of applicable policies. Impacts may not be fully mitigable to less than significant since this often depends on the magnitude of future development and its specific location. Specific mechanisms for implementing these policies would be determined in the course of project-specific, local agency environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.2 AGRICULTURAL RESOURCES

The amount of land designated for agriculture within the Santa Clarita Valley planning area is approximately one square mile (Santa Clarita 1991). Most land designated for agricultural purposes is present in the Ventura County portion of the CLWA service area. This land is located on the Santa Clara River floodplain, primarily along the Highway 126 corridor. The County of Los Angeles has recently re-designated a substantial portion of the agricultural land under its jurisdiction to other uses, as defined in the Newhall Ranch Specific Plan (Los Angeles County 1999). The State of California Farmland Mapping and Monitoring Program has designated approximately three percent of the mapped area within the CLWA service area as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Impacts to agricultural resources could be significant because there is a potential for these lands to be converted to non-agricultural use or for local jurisdictions to approve change agricultural zoning in order to allow a higher density or intensity of development.

Mitigation Measures

Impacts to agricultural resources would be mitigated to less than significant if local governments implement existing policies, as summarized in Table 4.2-1, of the *County of Los Angeles General Plan* and the *County of Ventura General Plan*, since these contain measures to preserve and protect agricultural land. Specific mechanisms for implementing these policies would be determined in the course of project-specific, local agency environmental review, as required under CEQA. Implementation of these plans and policies would reduce potentially adverse indirect impacts to less than significant.

TABLE 4.2-1
SUMMARY OF POLICIES FROM APPLICABLE PLANS

Environmental Resource	County of Los Angeles General Plan	County of Los Angeles Santa Clarita Area Plan	City of Santa Clarita General Plan	County of Ventura General Plan	Other Plans
Aesthetic / Visual Resources	Scenic Highways Element Circulation policies 9–14; Conservation and Open Space Element policies 18, 19, and 24.	Circulation Element contains policies 4.1–4.3; Community Design Element policies (1.1, 2.1, 3.1, 3.2–3.7)	Community Design Element policies 1.1–1.3, 2.1–2.6, 3.1–3.6, 4.1–4.4, 5.1–5.3, 6.1–6.8, 7.1–7.4, 8.1–8.5, 9.1–9.10, 10.1-10.5, and 11.1–11.9	Scenic Resources policies 1-5	None
Agricultural Resources	Land Use policies 7, 20, and 21; Conservation and Open Space Element policy 7	None	None	Farmland Resources policies 1-6	None
Air Quality	Conservation and Open Space Element policy 1	Environmental Resources Management Element policy 1.8	Air Quality Element 1.1, 1.2, 7.1, 8.1–8.3, 9.1, 14.1, 15.1, and 15.2. Mobile emissions are controlled by policies 1.1, 1.2, 2.1–2.5, 3.1, 4.1, 5.1, 6.1, 10.1, 10.2, 11.1, 11.2 and 12.1–12.3	Air Quality policies 1-6	*SCAQMD 2003 Air Quality Management Plan* and the *1999 Revised Ozone Plan*
Biological Resources	Conservation and Open Space Element policies 8 and 13	Land Use Element policy 5.3 and 5.4; Environmental Resources Management Element policies 1.1–1.4, 4.9, and 2.1–2.3	Land Use Element policy 1.10; Conservation and Open Space Element policies 1.1, 1.5, 1.6, 1.7, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 5.5, and 7.7	Biological Resource policies 1-5	Section 404 of the Clean Water Act; Section 10 of the Endangered Species Act; and Section 1600 of the Fish and Game Code
Cultural Resources	Conservation and Open Space Element policies 20–23	Environmental Resources Management Element policies 10.1–10.6	Conservation and Open Space Element policies 10.1–10.6	Paleontological and Cultural Resources policies 1-6	None

TABLE 4.2-1 (Continued)
SUMMARY OF POLICIES FROM APPLICABLE PLANS

Environmental Resource	County of Los Angeles General Plan	County of Los Angeles Santa Clarita Area Plan	City of Santa Clarita General Plan	County of Ventura General Plan	Other Plans
Geology, Soils, and Minerals	Land Use Element policies 7, 25, 26 and 28; Safety Element policies 1–7. 8, and 10; Conservation and Open Space Element policy 17	Land Use Element policies 4.1 and 4.2; Safety Element; policies 3.3 and 4.2; Environmental Resources Management Element policy 3.3	Open Space and Conservation Element policies 2.2 and 5.1; Safety Element policies 1.3–1.6, 1.8, 1.12, and 1.13	Hazards policies 1-3; Fault Rupture policies 1-6; Ground Shaking policy 1; Seiche policies 1 and 2; Liquefaction policy 2; Subsidence policies 1-3; Expansive Soils policies 1-3; Landslides/Mudslides policies 1-3; Water Resources policy 3; and Mineral Resources policies 6 and 8	State of California Uniform Building Code
Hazards and Hazardous	Conservation and Open Space Element policy 29; Safety Element's Wildland and Urban Fire Hazards policies 15–19; Hazardous Materials policies 20–24; Emergency Response, Preparedness and Recovery policies 25–35; Research and Safety Information Systems policies 36–38	Land Use Element policy 4.1; Environmental Resources Management Element policy 4.3; Safety Element policy 2.1	Safety Element policies 2.1, 3.1–3.10; and 4.1–4.5	Hazardous Materials and Waste policies 1-5; Fire Hazards policies 1-4	None
Land Use and Planning	Land Use Element policies	Land Use Element policies	Land Use Element policies	Land Use Element policies 1-11	None
Noise	Noise Element policies 1–16	Noise Element policies 1.2 and 1.3	Noise Element policies 1.2 and 1.4; 2.1-2.8; and 3.1–4.3	Noise policies 1-3	None
Population and Housing	Population projections	Population projections and Land Use Element policies	Population projections and Land Use Element policies	Population projections	None

TABLE 4.2-1 (Continued)
SUMMARY OF POLICIES FROM APPLICABLE PLANS

Environmental Resource	County of Los Angeles General Plan	County of Los Angeles Santa Clarita Area Plan	City of Santa Clarita General Plan	County of Ventura General Plan	Other Plans
Public Services	None	Land Use Element policy 7.1	Land Use Element policies 1.2-1.5; Public Services, Facilities, and Utilities Element policies 1.2–1.5, 1.14, 1.16–1.18, 2.1, and 2.2	Public Facilities and Services policies 1-3; Law Enforcement and Emergency Services policies 1-5; Fire Protection policies 1-2; Fire Hazards policies 1-4	Leroy F. Green School Facilities Act or 1998 (SB50) provides a statewide financing program for school facilities
Recreation	Conservation and Open Space Element policies 30–33	Environmental Resources management Element policies 5.15.7; Trails policies 6.1–6.6; Bikeways policies 7.1–7.6	Parks and Recreation Element policy 4.1	Parks and Recreation policies 1-3 and 6	Los Angeles County Ordinance 21.24.340 *et. seq.*. the Parkland Dedication Ordinance, requires that the subdivider of a residential subdivision "shall provide local park space to serve the subdivision, pay a fee in lieu of provision of such park land…provide local park space containing less than the required obligation but developed with amenities equal in value to the park fee, or do a combination of the above."
Transportation and Circulation	Transportation Element Circulation policies 1–41; Plan of Bikeways policy 2	Circulation Element policies 1.1–1.7 and 2.1–2.3	Land Use Element policies 1.1, 1.8, and 1.9	Transportation/Circulation policies 1-6	Southern California Association of Governments2004 Regional Transportation Plan (RTP)
Utilities / Service Systems	Public Facilities policies 1–10, 12–15, 17–20, and 25	Public Services and Facilities Element policies 2.1 and 2.2; Land Use Element policy 7.1	Public Services, Facilities, and Utilities Element policies 1.2–1.5; 1.14, 1.16–1.18, 2.3, 2.6, 2.7, 5.1, and 5.6	Waste Treatment and Disposal Facilities policies 1-6; Flood Control and Drainage Facilities policies 1 and 2	None

TABLE 4.2-1 (Continued)
SUMMARY OF POLICIES FROM APPLICABLE PLANS

Environmental Resource	County of Los Angeles General Plan	County of Los Angeles Santa Clarita Area Plan	City of Santa Clarita General Plan	County of Ventura General Plan	Other Plans
Water Resources	Conservation and Open Space Element policies 4-6, and 26; Safety Element policies 11-14	Public Services and Facilities Element policies 1.1, 1.2, 3.3, and 4.1	Open Space and Conservation Element policies 5.1-5.3, 5.6, and 7.1-7.15; Public Services, Facilities, and Utilities Element policies 1.2, 1.3-1.7, and 1.8; Public Safety Element policy 1.10	Water Resources policies 1-5; Flood Hazards policies 1-4; Water Supply Facilities policies 1 and 2	The Los Angeles Regional Water Quality Control Board (LARWQCB) Basin Plan and Santa Clara River Basin Plan

4.2.3 AIR QUALITY

Population, employment, and manufacturing growth could result in increased air pollutant emissions for which the Southern California Air Basin (SCAB) does not currently meet federal or state standards. Toxic emissions may result from some industrial development. Additionally, mobile emissions from vehicle operations could increase, including localized CO concentrations and PM10 emissions. Fugitive dust emissions also could result from construction. A determination of the proposed project's consistency with the 2003 Air Quality Management Plan (AQMP), which includes assumptions and objectives that demonstrate future attainment of the ambient air quality standards within the project region, is largely dependent on the planning factors selected to estimate the growth that will be served by the proposed project.

The South Coast Air Quality Management District (SCAQMD) used Southern California Association of Governments (SCAG) demographic and economic factors found in the 2001 Regional Transportation Plan (RTP) to forecast future emissions in the 2003 AQMP. The proposed project would make additional potable water available to a portion of the CLWA service area to supply approximately 43,960 persons over the next 30 years. As described in Section 5.1.3, the proposed project is consistent with SCAG's growth projections. Therefore, the proposed project would be consistent with the 2003 AQMP.

Other impacts could be significant because local development approvals could violate air quality standards or contribute substantially to an existing or projected air quality violation. A cumulatively considerable net increase in certain criteria pollutants for which the region is in non-attainment could also occur and expose sensitive receptors to substantial pollutant concentrations. Certain types of industrial development could create objectionable odors that affect a substantial number of people if it is constructed without appropriate mitigation.

Mitigation Measures

Impacts to air quality would be reduced if local governments implement existing policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans. Additionally, compliance with SCAQMD plans would also reduce air quality impacts, as presented in Table 4.2-1. However, not all impacts may be reduced to less-than-significant levels. Specific mechanisms for implementing these locally approved plans and policies would be determined in the course of project-specific environmental review, as required under CEQA.

Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.4 BIOLOGICAL RESOURCES

The proposed project would make additional potable water available to a portion of the CLWA service area for land development, thereby indirectly affecting biological resources. Impacts to threatened and endangered species and other sensitive biological resources within the CLWA service area (including wetlands) could generally be adverse due to the conversion and degradation of habitat. Although increased water use from new development may increase certain types of habitat areas (e.g., through increased runoff) resulting in a positive impact to wetlands, land development could also entail the loss, degradation or fragmentation of habitats, which may result in local native plant and wildlife populations (including sensitive species) being reduced in size and made increasingly vulnerable to local extinction. Non-native species introduced through ornamental landscaping or habitat disturbances could compete with native species or invade previously disturbed habitats, including those of special status species. Additionally, development could disrupt established wildlife corridors and impede the use of native wildlife nursery sites. These impacts could be significant.

Increased wastewater treatment plant effluent discharges, additional runoff from impervious surfaces (i.e., surfaces that are incapable of being penetrated by moisture), and new runoff from the irrigation of urban landscaping could increase the amount of wetlands and aquatic habitat. However, downstream water quality from these discharges could be degraded from pollutants (both point and non-point sources) carried in these waters. This could have a substantial adverse effect on riparian habitat and sensitive fish and amphibian populations, which would be a significant impact. Development could also result in conflicts with local policies and ordinances that protect biological resources, which would be a significant impact. As noted in Section 3.4, however, there are no adopted habitat conservation plans (HCPs) or natural community conservation plans (NCCPs) within the CLWA service area. Federal and State Endangered Species Act compliance, as necessary, has been accomplished on a development-specific basis.

Mitigation Measures

Impacts to biological resources could be reduced if local governments implement the existing policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans, as summarized in Table 4.2-1. However, all impacts may not be reduced to less than significant depending on the magnitude and specific location of development. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts. Regulatory agencies such as the U.S. Army Corps of Engineers (which has regulatory authority over wetlands), U.S. Fish and Wildlife Service, and California Department of Fish and Game may also impose permit conditions that would further reduce significant impacts.

4.2.5 CULTURAL RESOURCES

Excavation and grading activities associated with future development taking advantage of the additional potable water available to a portion of the CLWA service area could result in significant impacts to archaeological, historical, and paleontological resources. This development could also result in significant impacts associated with the disturbance of human remains. Significant impacts on cultural resources may include:

- grading of prehistoric archaeological or paleontological sites, thereby demolishing the site and eliminating its ability to yield important information;

- construction of new buildings that could impair the setting of a historic structure or district, thereby altering the structure's or district's ability to embody distinctive characteristics of a type or period; or

- excavation of utility trenches for new developments that uncover human remains or a paleontological deposit, thereby destroying those remains.

Mitigation Measures

Impacts to cultural resources could be mitigated to less than significant if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans, since the policies contain measures for either avoiding impacts to such resources or for providing adequate documentation of the resources, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.6 GEOLOGY AND SOILS

The County of Los Angeles, City of Santa Clarita, and Ventura County general plans all indicate that the CLWA service area contains a number of seismic hazards. Several active faults located in the general project area (such as the San Gabriel, San Andreas, San Fernando, and Sierra Madre faults) could cause structural damage as a result of ground shaking, subsidence, and liquefaction. The San Gabriel fault is also capable of causing structural damage as a result of ground rupture.

Depending on the location, new construction within the CLWA service area could expose people or structures to adverse effects, including risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides. Liquefaction is most likely to occur in areas of the CLWA service area that are saturated at very shallow depths, such as adjacent to the Santa Clara River. Due to the rugged, high relief of the foothill and mountainous areas surrounding the Santa Clarita Valley, landslides and unstable slopes are present in many areas of the CLWA service area. The impacts on development are dependent upon the type of construction, proximity to faults, degree of slope, bedrock orientation within slopes, and soil type of individual project sites. Impacts throughout the CLWA service area could be significant.

There also is a potential for the CLWA service area to contain geologic units or soils that are unstable. Future development projects could be subject to on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. This would be a significant impact. As noted in the EIR for the City of Santa Clarita General Plan, new construction could result in localized soil erosion on or adjacent to future development sites, which could result in the loss of topsoil and siltation of downstream drainages, creeks, and the Santa Clara River (City of Santa Clarita 1991). This would be a significant impact. *The County of Los Angeles General Plan* (1993), *City of Santa Clarita General Plan* (1991), and *Ventura County General Plan (2005)* all indicate that the CLWA service area contains expansive soils. Future development could be located on such soils, creating substantial risk to life or property. This would be a significant impact.

Mitigation Measures

Impacts to geology and soils could be mitigated to less than significant if local governments implement the existing policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since these policies contain adequate measures to avoid or reduce such impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.7 HAZARDS AND HAZARDOUS MATERIALS

Operations of past and existing businesses and industries in the CLWA service area may have resulted in soil contamination from the use of hazardous materials, spills, or disposal of these materials. Therefore, depending on the specific location, new development on previously contaminated sites may require the removal or remediation of soils before property development can commence. New commercial and residential development may also result in increased transport, use, and disposal of hazardous materials, along with increased risks of hazardous substance releases. Certain types of development could impair implementation of or physically interfere with emergency response plans or emergency evacuation plans, and could result in increased exposure to wildland fires where urbanization is adjacent to such areas. These impacts would be significant. No airport-related risks would occur because the CLWA service area is not located within an airport land use plan area, nor is it in the vicinity of a public airport, public use airport, or private airstrip.

Mitigation Measures

Impacts to hazards and hazardous materials could be mitigated to less-than-significant levels if local governments implement policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since these contain adequate measures to avoid or reduce such impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.8 HYDROLOGY AND WATER QUALITY

As local purveyors become increasingly dependent on State Water Project (SWP) supplies, which are variable and may be reduced during dry years, local groundwater resources may be required to support a larger portion of the total demand from future development during periods of reduced SWP supplies. The proposed project would ameliorate some of the dependence on groundwater supplies by providing a non-potable water supply for irrigation use. However, any short-term reliance on groundwater resources would be considered a significant impact since it could result in the substantial depletion of groundwater supplies on a short-term basis in dry hydrologic years.

Increased municipal and industrial use of potable water would increase the amount of water treated at the existing and planned raw and wastewater treatment plants. This could result in additional discharges from the WRPs. With implementation of the proposed project, a portion of the discharges (up to 17,400 af/yr) would be diverted and used as recycled water. Discharges from the Water Reclamation Plants (WRPs) above the capacity of the proposed project would continue to flow in the portion of the Santa Clara River west of Interstate Highway 5. Impacts would be significant if future development violated any water quality standard or waste discharge requirements.

The proposed recycled water supply project would not indirectly affect drinking water quality in the CLWA service area, but it could adversely affect the water quality of surface waters from stormwater runoff and discharges by the local WRPs. While the future inflow of sewage to the WRPs would have approximately the same concentration of chloride and other constituents as is present today, the use of 17,400 af/yr of recycled water would increase the load of chloride and other constituents treated and discharged by these treatment plants. However, the Los Angeles County Sanitation District (LACSD) adopted an ordinance that prohibits the installation and use of new self-generating water softeners in the Santa Clarita Valley, which would reduce the amount of chloride load in the watershed.

Water quality could also be impacted by short-term, construction-related pollutants, including sediment and leaks from construction equipment. Long-term water quality could be impacted by increases in fertilizers/pesticides, trash, auto leaks, and other pollutants including chloride, nitrates/nitrites, phosphorus, and heavy metals. All future development would be subject to the requirements of a Standard Urban Stormwater Mitigation Plan (SUSMP), National Pollutant Discharge Elimination System (NPDES) General Construction Activity Permit, Los Angeles Regional Water Quality Control Board (LARWQCB) Basin Water Quality Plan (Basin Plan) water quality objectives, and local ordinances such as the recently adopted LACSD ordinance that prohibits the installation and use of new self-regenerating water softeners in the Santa Clarita Valley. With implementation of applicable water quality regulations, impacts to surface water quality would be less than significant.

Future development within the CLWA service area could increase the amount of impervious surface area (roads, buildings, other paved areas). This could reduce percolation of rainwater to groundwater in the urbanized portions of the CLWA service areas, alter surface flows, and increase the amount and rate of stormwater runoff through storm sewers or other engineered drainages. However, most surface runoff enters the Santa Clara River and recharges the Alluvial Aquifer. As noted in the EIR for the *City of Santa Clarita General Plan*, development could affect water quality from non-point source discharges. The proposed project could result in significant indirect impacts from increased urban runoff.

The increase in impervious surface area could also affect the peak flow rates of floodwaters and could increase flooding on or off site of future development. Increased flooding and peak flow rates could result in substantial erosion or siltation on or off site. This would be a significant impact. If new development were allowed in floodplains, it could expose additional persons and property to flood hazards and could impede or redirect flood flows. Development, in particular the placement of impervious surfaces (i.e., surfaces that can not be penetrated by moisture), in areas critical to the recharge of the Alluvial Aquifer and Saugus Formation could reduce the rate of aquifer recharge. This effect would not alter the storage capabilities of these aquifers; however, it could, under certain circumstances, reduce aquifer recharge. These would be considered significant impacts. Seiches (creation of large waves on a lake or reservoir) could occur as a result of earthquake-induced ground shaking or landslides in Castaic Lake, Pyramid Lake, or Bouquet Reservoir and potentially result in the flooding of downstream communities. Mudflows also could occur, particularly in mountainous areas, as a result of new development.

Mitigation Measures

Impacts to water resources could be mitigated to less than significant if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since they contain adequate measures for reducing or avoiding impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies, including compliance with the LARWQCB Water Quality Control Plan (Basin Plan) for the Coastal Watersheds of Los Angeles and Ventura Counties, would also reduce adverse but less-than-significant project impacts.

4.2.9 LAND USE AND PLANNING

The residential, commercial, and industrial development that could occur in the future (from the additional potable water available to a portion of the CLWA service area) could possibly create the need or desire to convert undeveloped or agricultural portions of the service area to some form of urbanized development. While adopted policies and plans of local jurisdictions would reduce most potential conflicts between incompatible uses, these policies and plans may not eliminate building in some sensitive areas such as hillside management areas, open space areas, and sensitive wildlife habitat areas. In addition, as more land within the CLWA service area is developed, there may be more pressure to build in areas that have greater constraints (such as hillside areas) and to convert open space to developed uses.

Depending on the location and type of development, there is the potential for new development to physically divide an established community. Without adequate mitigation, there also is a potential for some conflicts with adopted land use plans, policies, or regulations that were adopted for the purpose of avoiding or mitigating an environmental effect. These land use impacts would be considered significant. No HCPs or NCCPs have been adopted within the CLWA service area. Federal and State Endangered Species Act compliance has been accomplished on a development-specific basis.

The County of Los Angeles has identified and protected areas of particular environmental concern through the designation of five specific Significant Ecological Areas (SEAs) in the Santa Clarita Valley. City and county planning agencies are responsible for creating land use plans that direct where development should occur and for approving and enforcing those plans. While the CLWA has the responsibility to provide wholesale water to water retailers within the CLWA service area, it does not approve the locations of new development. The proposed project could provide "freed up" potable water that could be used by new development in the CLWA service area, but it would not affect the specific locations of planned development.

Mitigation Measures

Impacts to land use and planning could be mitigated to less-than-significant levels if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since they contain adequate measures to reduce or avoid such impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.10 MINERAL RESOURCES

The *County of Los Angeles General Plan* (1993), *City of Santa Clarita General Plan* (2005), and *Ventura County General Plan (2005)* all indicate that the CLWA service area contains mineral resources such as gold, oil, and aggregate. The EIR for the *City of Santa Clarita General Plan* notes that if development encroached on mineral resource areas, the extraction of these resources could be incompatible if development is allowed in such areas (City of Santa Clarita 2005). To the extent that future development might result in the loss of availability of a known mineral resource of value to the residents of the region and state or the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan, impacts would be significant.

Mitigation Measures

Impacts to mineral resources could be mitigated to less than significant if local governments implement the existing policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since these policies contain adequate measures to avoid or reduce such impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.11 NOISE

Development that might result from the additional potable water available to a portion of the CLWA service area would result in an increase in ambient noise levels due to the potential increase in associated traffic. Long-term increases in noise levels could also be associated with commercial and industrial development. Residential areas and other sensitive receptors near transportation corridors and other noise generators may experience increased noise. Development could also result in short-term increases in local noise levels from construction and grading activities. Impacts would be significant if the noise generated was in excess of local standards or if a substantial temporary or permanent increase in noise occurred. Impacts also would be significant if development resulted in exposure of persons to excessive groundborne noise or vibration.

Mitigation Measures

Impacts to noise could be mitigated to less-than-significant levels if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since they contain adequate measures to reduce or avoid such impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.12 POPULATION AND HOUSING

It is assumed that the proposed project could make additional potable water available to a portion of the CLWA service area. Because 1,700 af/yr has already been approved for use through previously certified environmental documents, the RWMP would account for the use of 15,700 additional af/yr of recycled water that had not previously been available (17,400 af – 1,700 af = 15,700 af). This would supply potable water for approximately 43,960 persons and 13,443 housing units over the course of approximately 30 years. Impacts would be significant because the proposed project could indirectly induce population growth in the CLWA service

area. The proposed project would not displace substantial numbers of existing houses or substantial numbers of people. Future development would be anticipated to occur on undeveloped land, and also would not displace existing houses or people.

Mitigation Measures

Impacts to population and housing could be mitigated to less-than-significant if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since they contain adequate measures to reduce or avoid such impacts. Applicable plans and policies are listed in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.13 PUBLIC SERVICES

Growth in the CLWA service area could result in impacts to the following public services:

Police — Increased demand for services from the Los Angeles County Sheriff's Department (which also contracts with the City of Santa Clarita to provide services), the Ventura County Sheriff's Department, and the California Highway Patrol could occur. This would include additional staffing, facilities and equipment, and could affect response times to handle calls for service. Any special problems posed by new developments (e.g., roadway access or terrain) would be considered at the time the development is reviewed. Impacts could be significant since the new development could require new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

Fire — Increased demand for services from the Los Angeles and Ventura County Fire Departments and from private providers of emergency response and paramedic services for additional staffing, facilities, and equipment could occur and could affect response times to handle calls for service. Any special problems posed by new developments (e.g., roadway access or terrain) would be considered at the time the development is reviewed. Additional considerations such as the location of a proposed new development in moderate or high fire hazard zones, the adequacy of water supplies and fire flows, and types of vegetative cover would be taken into account. In addition, State and County fire codes, standards and guidelines exist to which all developments must adhere. Impacts could be significant, since the new development could require new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

Schools — Growth could generate increased enrollments and the need for additional staffing, facilities, and resources in some or all school districts in the CLWA service area. All school districts in the service area have reported that they are either at capacity or are experiencing overcrowding, and temporary facilities are being used in every district. However, schools built since 2002 have eased the overcrowding to some degree. Additional enrollments would be considered at the time new development is reviewed, and would include input from affected school districts. Impacts are considered to be significant based on current capacity limitations since additional schools would likely have to be built, which could cause significant environmental impacts.

Libraries Growth could generate increased demand for library services and associated need for staffing, facilities, and resources (books, magazines, periodicals, etc.) in some or all libraries in the CLWA service area. Library services provided by the County of Los Angeles Library Department in the Santa Clarita Valley are currently below planning standards, based on a planning standard of 2 material items per capita and 0.389 gross square feet of space per capita. Additional demands, including cumulative demands for square feet of library space and related resources, would be considered at the time new development is reviewed. Impacts on libraries are considered to be significant based on current shortages (since additional libraries would likely have to be built) and could cause significant environmental impacts.

Mitigation Measures

Impacts to public services could be mitigated to less-than-significant if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since they contain adequate measures to reduce or avoid such impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.14 RECREATION

Significant growth-related impacts to recreational resources may include increased demand for recreational resources, such as public parks and trails and other recreation areas. This demand could exacerbate existing shortfalls in local parkland and may outpace the ability of public agencies to provide these resources.

Mitigation Measures

Impacts to recreation could be mitigated to less-than-significant if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since they contain adequate measures to reduce or avoid such impacts, as summarized in Table 4.2-1. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.2.15 TRANSPORTATION AND CIRCULATION

Growth in the CLWA service area would result in the following:

- Daily trips in the service area would potentially increase over current levels.
- There would be a related need for new private or public roadways, parking facilities, and for subsequent road maintenance.
- Increased demand for transit systems would occur, and there may be an alteration of present patterns of circulation.
- Roadways with existing capacity constraints would require upgrading or may experience further deterioration in levels of service.

The EIR for the *City of Santa Clarita General Plan* noted significant, potentially unmitigable impacts at certain isolated road segments from growth allowed under the General Plan. The segments most likely to be significantly affected are Bouquet Canyon Road near Haskell Canyon Road; McBean Parkway north of State Route 126; Soledad Canyon Road between Sierra Highway and Whites Canyon Road; Rye Canyon Road east of Interstate 5; and San Fernando Road between Newhall Avenue and State Route 14. In general, growth-related impacts would be significant because they could cause an increase in traffic that is substantial in relation to the existing load and capacity of the street system and could cause an exceedance of an established level of service standard.

Specific developments could substantially increase traffic and circulation hazards due to a design feature or could result in inadequate emergency access or parking capacity. Development could also conflict with adopted plans and policies or programs supporting alternative transportation. Air traffic is projected to increase throughout the southern California region regardless of whether the proposed project is implemented and new or expanded airports are being evaluated. Planning efforts for these projects would be required to demonstrate that the new locations/expansions do not result in substantial safety risks.

Mitigation Measures

Impacts to transportation and circulation could be reduced if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans, as summarized in Table 4.21; however, it is possible that these impacts cannot be mitigated to below a level of significance due to the delay between the time improvements are needed and the time they could be provided. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less than significant project impacts. Impacts also would be reduced by compliance with the SCAG 2004 RTP.

4.2.16 UTILITIES/SERVICE SYSTEMS

Solid Waste. Growth could generate increased demand for solid waste disposal services due to construction-related and operational impacts of new land development. Los Angeles County and Ventura County operate several landfills that serve the CLWA service area. The location and volume of waste generation, including cumulative demands, provision of recycling programs, and existing landfill capacity and expansion plans, would be considered at the time new development is reviewed. However, impacts are considered significant because an adequate supply of landfill space has not been ensured for the future and would remain so unless additional landfill space or other disposal alternatives are approved.

Water Treatment. Growth would increase the need for potable water and consequently create an increased demand for water treatment facilities operated by the four local purveyors and the CLWA. The current combined capacity of the existing facilities (ESFP at 56 mgd and RVWTP at 30 mgd) is sufficient to treat approximately 54,000 af/yr for potable use on an average annual basis and 96,000 af/yr while operating at peak capacity. During an average year, the total amount of water that could be treated at the 2 plants, based on the maximum amount of water that would be delivered from the SWP, would be 81,000 af/yr. During average years, the water supply requiring treatment would be less than the peak capacity of the two facilities. SWP deliveries have never exceeded 41,800 af, and demand for water treatment would increase incrementally as development is approved. Given the current capacity of the CLWA treatment plants, impacts would be less than significant because adequate capacity is available to treat the total amount of water available.

Wastewater. Growth would result in an increase in wastewater generation and demand for wastewater treatment primarily at facilities operated by County Sanitation District No. 26 and District No. 32 in Los Angeles County, which service the Santa Clarita Valley. These two districts jointly operate a regional system known as the SCVJSS for which the *2015 Joint Sewerage System Facilities System Plan* has been approved. The SCVJSS has a current combined capacity (from the Saugus and Valencia treatment plants) of 28.1 mgd. The System Plan identified the need for further expansion to the practical site capacity of 34.1 mgd. The deadline for the final expansion capacity (i.e., for increasing the capacity by 6 mgd from 28.1 to 34.1 mgd) has been extended from 2010 to 2020.

Based on a wastewater generation rate of 90 gallons per day per person, the future capacity of the SCVJSS would serve approximately 378,900 people by 2020. The Urban Water Management Plan (UWMP) projects a population of 368,691 in the Santa Clarita Valley area by 2020 (CLWA 2005c). The proposed project could indirectly serve approximately 43,960 persons which, if added to the 2020 population projection of 368,691, would total 412,651 people. This would exceed the SCVJSS anticipated maximum capacity of 34.1 mgd, which would serve approximately 378,900 people. Therefore indirect impacts to wastewater facilities would be significant.

Storm Water Drainage. New construction would likely require the construction of new storm water drainage facilities or the expansion of existing facilities, which could cause significant environmental impacts.

Mitigation Measures

Impacts to utilities and service systems could generally be mitigated to less-than-significant if local governments implement the policies of the County of Los Angeles, County of Ventura, and City of Santa Clarita general and area plans since they contain adequate measures to reduce or avoid impacts, as summarized in Table 4.2-1. However, impacts to solid waste disposal and wastewater facilities may not be avoidable unless additional landfill and wastewater capacity is approved and constructed. Specific mechanisms for implementing these policies would be determined in the course of project-specific environmental review, as required under CEQA. Implementation of these plans and policies would also reduce adverse but less-than-significant project impacts.

4.3 SUMMARY OF IMPACTS

Because the use of recycled water would remove an obstacle to growth (by freeing up previously used potable water), the proposed project may indirectly foster economic or population growth or the construction of additional housing within the CLWA service area. In summary, implementation of the RWMP would result in significant and unavoidable indirect impacts to the areas of aesthetics, air quality, biological resources, transportation and traffic, and utilities/service systems (wastewater treatment). All other impacts would be less than significant with the implementation of applicable policies of the County of Los Angeles and City of Santa Clarita general and area plans.

SECTION 5.0 CONSISTENCY WITH ADOPTED PLANS AND POLICIES

CEQA Guidelines, Section 15125(d), requires that a proposed project be compared to existing general and regional plans. The proposed project spans the entire CLWA service area, which is governed by several jurisdictions including the County of Los Angeles, the County of Ventura, and the City of Santa Clarita. However, there are no RWMP facilities planned in Ventura County. As such, the adopted Los Angeles County General Plan, the related Santa Clarita Valley Area Plan, the Ventura County General Plan and the City of Santa Clarita General Plan are directly applicable to the proposed project. Additionally, because the Santa Clara River flows through the CLWA service area, the *Santa Clara River Enhancement and Management Plan* (SCREMP) and the *Newhall Land Natural River Management Plan* (NRMP) are also addressed. This section, therefore, identifies those policies within each of these plans that are relevant to the proposed project and its specific elements.

The objective of the proposed project is to update the 1993 *Draft Reclaimed Water Master Plan* by incorporating new developments for sources of recycled water as well as new technological innovations for distributing treated effluent. Because urban growth within the Santa Clarita Valley is expected to increase, a corresponding rise in water demand is also expected. The CLWA recognizes that it cannot solely rely on imported State Water Project (SWP) water and is therefore pursuing other sources of water to meet the projected water demands of its existing and future users. Because the proposed project is driven, in part, by future growth trends, the growth management policies of the Southern California Association of Governments (SCAG) *Regional Comprehensive Plan and Guide* and *Regional Transportation Plan* as well as the Los Angeles and Ventura County General Plans are also considered.

To summarize, the following plans have been reviewed:

- SCAG Regional Comprehensive Plan
- SCAG Regional Transportation Plan
- County of Los Angeles General Plan
- Santa Clarita Valley Area Plan (Part of the County of Los Angeles General Plan)
- City of Santa Clarita General Plan
- Ventura County General Plan
- 2005 CLWA Urban Water Management Plan
- CLWA Groundwater Management Plan, Santa Clara River Valley Groundwater Basin, East Subbasin, Los Angeles County, 2003
- Santa Clara River Enhancement and Management Plan (SCREMP)
- Newhall Land Natural River Management Plan (NRMP)

In evaluating whether or not the proposed project is consistent with these plans, a review of the policies specific to water resources and conservation was conducted for each plan. The proposed project involves distinct project elements that are site specific in nature such as the construction of storage tanks and booster pump stations as well as use of underground

reservoirs. Therefore, a review of policies relating to various topics including but not limited to open space, safety, public facilities, economic development, and hazards was also conducted.

5.1 SOUTHERN CALIFORNIA ASSOCIATION GOVERNMENTS

The Southern California Association of Governments (SCAG) is a regional planning agency whose functions include regional transportation planning, air quality planning, demographics projections, and the review of proposed projects of regional significance to determine consistency with regional plans, including SCAG's Regional Comprehensive Plan and Guide (RCPG) and Regional Transportation Plan (RTP). The policy numbers and other text shown in italics below are taken directly from the RCPG.

5.1.1 REGIONAL COMPREHENSIVE PLAN AND GUIDE

Growth Management Chapter (GMC)

Policy 1c The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.

Consistency Evaluation: The proposed project would not conflict with the timing, financing, and location of public facilities, utility systems, or transportation systems. Implementation of the proposed project would not affect SCAG's growth policies for the region and therefore the proposed project is consistent with this policy.

GMC Policies Related to Improving the Regional Standard of Living

The GMC goals to develop urban forms that enable individuals to spend less of their income on housing, that minimize public and private development costs, and that enable firms to be more competitive to help strengthen the strategic goal to stimulate the regional economy. The evaluation of the proposed project in relation to the policies below is intended to guide efforts toward achievement of such goals and does not suggest regional interference with local land use powers.

Policy 2f Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.

Consistency Evaluation: The proposed project would have no impact on any other jurisdictions' cost for infrastructure and public service delivery.

Policy 2g Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.

Consistency Evaluation: The proposed project would follow existing local jurisdictions' permitting processes for all elements, where required, and would therefore be consistent with this policy.

GMC Policies Related to Improving the Regional Quality of Life

The GMC goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life; that accommodate a diversity of lifestyles; that preserve open space and natural resources; and that are aesthetically pleasing and preserve the character of communities can

enhance the strategic goal of maintaining the regional quality of life. The evaluation of the proposed project in relation to the policies below is intended to provide direction for plan implementation and does not allude to regional mandates.

Policy 2h Encourage planned development in locations least likely to cause environmental impact.

Consistency Evaluation: The CLWA is the Lead Agency for approving the proposed project, which would provide an added element of water service to existing and future development within its service area. It does not have the governing authority to approve new developments in its service area and therefore the proposed project would not conflict with this policy.

Policy 2j Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.

Consistency Evaluation: Elements of the proposed project, such as the construction of the storage tanks and ancillary facilities associated with the Aquifer Storage and Recovery (ASR) could be located in areas containing sensitive biological resources. Construction of these appurtenant facilities could have the potential to directly affect unique and endangered plants and animals as well as their habitats. Program-level mitigation measures for avoiding and/or minimizing impacts to biological resources are provided in Section 3.4, Biological Resources, of this EIR. Furthermore, future, more detailed project-level analysis of these components will recommend site-specific mitigation measures for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and would therefore achieve consistency with this policy.

Additionally, the use of existing and underutilized underground aquifers (such as the Saugus Formation) for proposed storage of supplemental recycled water would augment groundwater supplies and would avoid infringement of existing groundwater recharge areas. As such, this component of the proposed project would be consistent with this policy in protecting groundwater recharge areas.

Policy 2k Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.

Consistency Evaluation: The proposed distribution system and booster pump stations would typically be located in previously disturbed areas and/or within existing roadway easements. The discovery of unrecorded cultural resources in these areas is not anticipated. However, because the siting of the proposed new storage tanks and ancillary facilities associated with the proposed ASR have not yet been determined, general mitigation measures contained in Section 3.5, Cultural Resources, of this EIR are recommended. Implementation of these programmatic mitigation measures would ensure protection of recorded and unrecorded cultural resources and archaeological sites. As such, the proposed project would be consistent with this policy.

It is also expected that a more detailed site-specific analysis would be conducted for each project component to determine the potential presence of such resources. Upon completion of subsequent investigation and analysis, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact on such resources should they exist. Implementation of the recommended mitigation measures for each project component would ensure protection of cultural resources and would therefore ensure consistency with this policy.

Policy 2l Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.

Consistency Evaluation: Components of the proposed project, including the construction and operation of new storage tanks, could be located in areas with steep slopes, high fire hazards and areas subject to flooding, and/or in areas prone to seismic hazards. However, the design of these facilities would comply with standard building code requirements to avoid those hazards or to ensure that structural failure of these facilities is avoided and/or minimized to the maximum extent practicable. Implementation of the mitigation measures identified in Section 3.6 (Geology and Soils), Section 3.7 (Hazards and Hazardous Materials), and Section 3.8 (Hydrology and Water Quality) of this EIR would reduce the risk of fire, flood, and seismic hazards. Additional site-specific mitigation measures developed during subsequent, detailed design studies would further reduce such hazards. As such, the proposed project would be consistent with this policy.

Policy 2m Encourage mitigation measures that reduce noise in certain locations, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.

Consistency Evaluation: The EIR identifies mitigation measures related to construction noise, exposure to seismic hazards and earthquake damage. Subsequent, more site-specific mitigation measures would also reduce potentially significant impacts in these areas. As such, implementation of these mitigation measures would ensure that the proposed project is consistent with this policy.

GMC Policies Related to Providing Social, Political, and Cultural Equity

The GMC goals to develop urban forms that avoid economic and social polarization would promote the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended to guide the accomplishment of this goal, and does not suggest regional mandates and interference with local land use powers.

Policy 4 Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.

Consistency Evaluation: The CLWA provides water services to all end-user customers regardless of circumstances. Implementation of the proposed project is intended to service all existing and future end-user customers as well. Recycled water is a critical component of sustainability in arid climates. Therefore, the proposed project would be consistent with this policy.

Air Quality Chapter Core Actions

Policy 3b Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation, and economic relationships to ensure consistency and minimize conflicts.

Consistency Evaluation: The proposed project is consistent with this policy as it is complying with the CEQA review process whereby governmental agencies and the public will have the opportunity to review the potential environmental effects of the proposed project.

Open Space Chapter and Ancillary Goals

Open Space and Conservation

Policy F2 Maintain open space for adequate protection of lives and properties against natural and man-made hazards.

Consistency Evaluation:

- Minimize potentially hazardous developments in hillsides, canyons, areas susceptible to flooding, earthquakes, wildfire and other known hazards, and areas with limited access for emergency equipment.

- Minimize public expenditure for infrastructure and facilities to support urban type uses in areas where public health and safety could not be guaranteed.

Consistency Evaluation: Elements of the proposed project (such as the storage tanks and ancillary facilities associated with the proposed ASR) would be located in open space areas on the fringes of existing development. Although a slight reduction of open space would be needed to accommodate construction of these facilities, adherence to standard building codes and program-level mitigation measures have been identified in this EIR to address the protection of lives and property near the facilities in the event of structural failure. With the implementation of more site-specific mitigation measures to address safety concerns, the proposed project would be consistent with this policy. Additionally, implementation and operation of the proposed project would ultimately support existing urban uses in a manner that would help reduce the demand for potable water. Although the CLWA does not have the authority to approve development projects, the proposed project would provide it with the ability to supply recycled water service to future end-use customers within approved future development areas. Local approvals of new development projects may be required to provide opportunities for recycled water use. Accordingly, implementation of the proposed project would support such planning efforts. As such, the proposed project would be consistent with these policies.

Resource Protection

Policy F4 Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.

Consistency Evaluation: Elements of the proposed project (such as the construction of the storage tanks and ancillary facilities associated with the ASR) may ultimately be located in areas containing sensitive biological resources. Construction of these appurtenant facilities in support of the proposed project could have the potential to directly affect unique and endangered plants and animals as well as their habitats. Program-level mitigation measures for

avoiding and/or minimizing impacts to biological resources are provided in Section 3.4, Biological Resources, of this EIR. Furthermore, upon more detailed project-level analysis of these components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and would therefore be consist with this policy.

Additionally, the use of existing and underutilized underground aquifers (such as the Saugus Formation) for proposed storage of supplemental recycled water would augment groundwater supplies and avoid infringement of existing groundwater recharge areas. As such, this component of the proposed project would be consistent with this policy in protecting groundwater recharge areas.

Water Quality Chapter Recommendations and Policy Options

The Water Quality Chapter core recommendations and policy options relate to the two primary water quality goals: (1) to restore and maintain the chemical, physical and biological integrity of the nation's water and (2) to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters.

Policy 2 Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.

Consistency Evaluation: The CLWA considers and applies the principals of watershed management as well as policies in locally adopted plans in its planning and capital improvements efforts. Through the CEQA-review process, interested and vested government agencies have the opportunity to review and comment on the potential environmental effects of the proposed project. As such, the proposed project would be consistent with this policy.

Policy 5 Support regional efforts to identify and cooperatively plan for wetlands to facilitate both sustaining the amount and quality of wetlands in the region and expediting the process for obtaining wetlands permits.

Consistency Evaluation: The proposed project would not place any of its permanent above-ground ancillary facilities (i.e., distribution system, storage tanks, booster pump stations, ancillary facilities associated with the ASR) within a wetland. Therefore, the proposed project would not require a wetland permit. As such, the proposed project would be consistent with this policy.

Policy 6 Clean up the contamination in the region's major groundwater aquifers since its water supply is critical to the long-term economic and environmental health of the region. The financing of such clean-ups should leverage state and federal resources and minimize significant impacts on the local economy.

Consistency Evaluation: The proposed ASR facility, as part of the proposed project, would be located in that portion of the Saugus Formation north of the San Gabriel Fault that is not used for potable water production. The proposed project would capitalize on the opportunity to increase the availability and supply of groundwater, though for recycled water use only. In turn, the demand for potable water from groundwater sources would be reduced. The proposed project would not interfere with groundwater contamination clean-up efforts. Rather, it would serve to alleviate increasing demand for water.

Policy 7 Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.

Consistency Evaluation: Water reclamation efforts are integral to the planning efforts pursued by the CLWA and are the intent of the proposed project. The nature and intent of the proposed project is consistent with this policy.

5.1.2 REGIONAL TRANSPORTATION PLAN

The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitation.

Adopted 2004 RTP Goals

1. Maximize mobility and accessibility for all people and goods in the Region.
2. Ensure travel safety and reliability for all people and goods in the Region.
3. Preserve and ensure a sustainable regional transportation system.
4. Maximize the productivity of our transportation system.
5. Protect the environment, improve air quality and promote energy efficiency.
6. Encourage Land-use and growth patterns that complement our transportation investments.

The implementation of the RWMP would not require transportation investments. The CLWA does not have the authority to approve the location of new development in its service area or to impose related mitigation measures. Rather, the authority and responsibility for approving and mitigating the impacts of specific development projects is within the jurisdictions of local governments and regulatory agencies. The proposed project would not affect the implementation of these goals.

5.1.3 CONSISTENCY WITH SCAG GROWTH PROJECTIONS

The following section addresses the proposed project's consistency with SCAG's adopted growth forecasts. SCAG produces population growth projections as part of their triennially updated Regional Transportation Plan (RTP). The RTP projections are commonly used by municipalities and agencies as part of planning for future growth. The RTP projections were used in the 2005 Urban Water Management Plan (UWMP) as part of estimating future water demand for the CLWA service area. The 2005 UWMP is based on a 2030 population of approximately 428,209 persons (CLWA 2005c).

The 2005 UWMP describes a future recycled water demand of up to 17,400 acre-feet per year (af/yr) in anticipation of the 2030 population (CLWA 2005c). The proposed project would facilitate the distribution of approximately 17,400 af/yr of recycled water, which could indirectly serve approximately 43,960 persons. Adding this to the 2005 population of 249,343 produces an estimated population of 293,303, which is lower than the SCAG's estimated 2030 population.

Therefore, the proposed project would serve a portion of the growth projected by SCAG and would be consistent with the SCAG growth forecast. Additionally, SCAG has determined that the project is not regionally significant, as stated in their response letter to the Notice of Preparation located in Appendix A.

5.2 COUNTY OF LOS ANGELES GENERAL PLAN

The County of Los Angeles adopted its state-mandated General Plan for Los Angeles County in 1980. In November 2002, the County released the CEQA Initial Study for its proposed update to the General Plan. One of the general objectives for updating the General Plan relates to changes in the Conservation and Open Space Element to better reflect current laws and planning practices with respect to watershed planning and stormwater pollution prevention. Other proposed changes relate to revisions to area, community, and Significant Ecological Area (SEA) boundaries; changes in growth projections; and general technical and format changes to improve accuracy and consistency with legal requirements. Because the update is currently under review and the changes have not yet been adopted, only those policies listed in the adopted General Plan are considered in the analysis.

Environmental Protection

GOAL Conservation of resources and environmental protection.

Policy 18 Conserve the available supply of water and protect water quality.

Policy 20 Promote more effective recycling and reuse of resources, especially those that are nonrenewable.

Policy 26 Promote the development and use of new and improved water and waste management technology.

Consistency Evaluation: The policies listed above relate to the goal of water conservation and the reuse and recycling of natural resources, namely water. The proposed project would not require the use of potable or imported water. Rather, the primary objectives of the proposed project are to satisfy the state's mandates as set forth in the Water Recycling Act of 1991 and to conserve potable water supplies by making recycled water available to meet the demands of existing and future users. The application of recycled water for non-potable use is considered to be a water-conservation practice.

The proposed project capitalizes on existing known sources of treated wastewater that currently are being underutilized or discharged (without reuse) into the Santa Clara River. The use of recycled water would essentially reduce a portion of the demand for potable water. It would also alleviate some pressure to pump potable water from the groundwater basin—where once potable groundwater was used for irrigation, recycled water would be substituted. Additionally, the project would help to ensure that underground aquifer levels are adequately maintained.

Policy 43 Maintain a balance between increased intensity of development and the capacity of needed facilities such as transportation, water and sewage systems.

Consistency Evaluation: The CLWA does not have the governing authority to approve new developments in its service area. However, the CLWA is required to provide water services to all existing and future end-user customers associated with future, locally approved development projects. Therefore, the proposed project would be consistent with this policy.

Conservation, Open Space and Recreation Chapter

GOAL To conserve water and protect water quality.

Policy 1 Actively support strict air quality regulations for mobile and stationary sources, and continued research to improve air quality. Promote vanpooling, carpooling, and improve public transportation.

Consistency Evaluation: Construction of the proposed project would result in the emissions of air pollutants. Implementation of the recommended mitigation measures identified in Section 3.3, Air Quality, of this EIR would reduce direct impacts from temporary, construction-related emissions. With mitigation, the proposed project would be consistent with this policy.

Policy 4 Protect ground water recharge and watershed areas, conserve storm and reclaimed water, and promote water conservation programs.

Policy 5 Encourage the maintenance, management and improvement of the quality of imported domestic water, ground water supplies, natural runoff and ocean water.

Consistency Evaluation: Water and reclamation efforts are integral to the planning efforts pursued by the CLWA. The key goals and objectives of the proposed project are consistent with these policies.

GOAL To preserve and protect prime agricultural lands, forests, fisheries, significant ecological areas, and other biotic resources.

Policy 8 Preserve significant ecological areas by appropriate measures, including preservation, mitigation, and enhancement.

Consistency Evaluation: Elements of the proposed project (such as the construction of the storage tanks and ancillary facilities associated with the ASR) may ultimately be located in areas containing sensitive biological resources. Construction of these appurtenant facilities could have the potential to directly affect unique and endangered plants and animals as well as their habitats. Program-level mitigation measures for avoiding and/or minimizing impacts to biological resources are provided in Section 3.4, Biological Resources, of this EIR. Furthermore, upon more detailed project-level analysis of these project components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and would therefore achieve consistency with this policy.

Policy 13 Protect watershed, streams, and riparian vegetation to minimize water pollution, soil erosion and sedimentation, maintain natural habitats, and aid in ground water recharge.

Consistency Evaluation: The proposed project includes the construction of a system of transmission pipelines (which would primarily follow the alignment of the existing roadway easements) and the construction of new storage tanks. Construction activities would involve trenching and grading resulting in soil disturbance and the potential for increased sedimentation in nearby and downstream waters. Impacts to jurisdictional waters would require federal (USACE, USFWS) and state (CDFG, RWQCB) permit compliance. Compliance with the conditions stipulated in these permits would ensure that the functions and conditions of the regulated natural resources would be maintained.

Program-level mitigation measures for avoiding and/or minimizing impacts to watersheds, streams and riparian vegetation are provided in Section 3.4, Biological Resources, of this EIR. Furthermore, upon more detailed project-level analysis of these project components, site specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and would therefore ensure consistency with this policy.

Additionally, the use of existing and underutilized underground aquifers (such as portions of the Saugus Formation) for proposed storage of supplemental recycled water would augment groundwater supplies and avoid infringement of existing groundwater recharge areas. As such, this component of the proposed project would be consistent with the policy of aiding in groundwater recharge.

Policy 15 Maintain natural watershed processes by regulating development in tributary watersheds.

Consistency Evaluation: Water and reclamation efforts are integral to the planning efforts pursued by the CLWA. The CLWA does not have the authority to approve new development in its service area or to impose related mitigation measures. The proposed project would not affect this policy.

Policy 16 Minimize increased runoff, erosion, and siltation of streambeds that would limit the uses of streams and waterbodies for recreation and other beneficial water-related uses.

Consistency Evaluation: The proposed project includes the construction of a system of transmission pipelines (which would primarily follow the alignment of the existing roadway easements) and the construction of new storage tanks. Construction activities would involve trenching and grading which would result in soil disturbance and the potential for increased sedimentation in nearby and downstream waters. Impacts to jurisdictional waters would require federal (USACE, USFWS) and state (CDFG, RWQCB) permit compliance. Compliance with the conditions stipulated in these permits would ensure that the functions and conditions of the regulated natural resources would be maintained.

Additionally, program-level mitigation measures for avoiding and/or minimizing impacts to streams and nearby water bodies are provided in Section 3.8, Hydrology and Water Quality, of this EIR. Furthermore, upon more detailed project-level analysis of these project components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital streams and water bodies and would therefore achieve consistency with this policy.

Safety Element Chapter

The following goals and policies relate to the construction of the proposed reservoirs and booster pump stations.

GOAL Minimize injury and loss of life, property damage, and the social, cultural, and economic impacts caused by earthquake hazards.

Policy 2 Review projects proposing expansion of existing development and construction of new development, especially critical facilities, and encourage them to avoid localities exposed to high earthquake hazards through such techniques as cluster development and transfer of development rights.

Policy 3 Continue enforcement of stringent site investigations (such as seismic, geologic, hydrologic, and soils investigations) and implementation of adequate hazard mitigation measures for development projects in areas of high earthquake hazard, especially those involving critical facilities. Do not approve proposals and projects which cannot mitigate safety hazards to the satisfaction of responsible agencies.

GOAL Protect public safety and minimize the social and economic impacts from geologic hazards.

Policy 8 Review proposals and projects proposing new development and expansion of existing development in areas susceptible to landsliding, debris flow, and rockfalls, and in areas where collapsible soils are a significant problem; and disapprove projects which cannot mitigate these hazards to the satisfaction of responsible agencies.

Consistency Evaluation: Components of the proposed project, including the construction and operation of the proposed new storage tanks, could be located in areas with steep slopes, high fire hazards and areas subject to flooding and/or in areas prone to seismic hazards. However, the design of these facilities would comply with standard building code requirements to avoid these hazards or ensure that structural failure of these facilities is avoided and/or minimized to the maximum extent practicable. Also, the implementation of the recommended mitigation measures identified in Section 3.6 (Geology and Soils), Section 3.7 (Hazards and Hazardous Materials), and Section 3.8 (Hydrology and Water Quality) of this EIR would reduce the risk of fire, flood, and seismic hazards. Additional site-specific mitigation measures developed during subsequent, detailed design studies would further reduce such hazards. As such, the proposed project would be consistent with these policies.

Additionally, the proposed project is consistent with this policy as it is complying with the CEQA review process whereby interested and vested governmental agencies will have the opportunity to review the potential environmental effects of the project. As such, the proposed project is consistent with these policies.

Policy 20 Review proposed development projects involving the use or storage of hazardous materials, and disapprove proposals, which cannot properly mitigate unacceptable threats to public health and safety to the satisfaction of responsible agencies.

Policy 21 Promote the safe transportation of hazardous materials.

Policy 22 Encourage businesses and organizations which store and use hazardous materials to improve management and transportation of such materials.

Policy 24 Encourage improved, timely communications between businesses and emergency response agencies regarding hazardous materials/waste incidents.

Consistency Evaluation: The proposed project would involve the transport and use of liquid chlorine, a hazardous material. As discussed in Section 3.7, Hazards and Hazardous Materials, the proposed project would comply with all applicable federal, state, and local hazardous material transport and handling regulations and as such, the proposed project would be consistent with these policies.

Public Facilities Chapter

GOAL To protect the health and safety and welfare of all residents in providing water and waste services.

Policy 3 Encourage private firms and public agencies providing water and waste management services to cooperate with all levels of government in establishing, enacting and enforcing consistent standards and criteria.

Policy 4 Cooperate with federal, State, regional and local agencies to develop and implement new technologies in water and waste management while continuing existing methods until new alternatives are economically feasible.

Consistency Evaluation: The proposed project is consistent with these policies as it is complying with the CEQA review process whereby interested and vested governmental agencies will have the opportunity to review and comment on the potential environmental effects of the project. Comments received from the various governmental agencies will be incorporated into the Final EIR. As such, the proposed project is consistent with these policies.

Policy 8 Design water and waste management systems which enhance the appearance of the neighborhoods in which they are located and minimize negative environmental impacts.

Consistency Evaluation: The construction and operation of reservoir tanks in hillside areas could present a potentially significant impact to scenic vistas and neighborhood views from grading and changes in topography; removal of vegetation; and the placement of a structure in hillside areas. As described in Section 3.1, Aesthetics, mitigation measures requiring the implementation of landform grading techniques, revegetation, and landscaping would alleviate the potential visual impacts of the reservoir tanks. Additionally, the mitigation program would include the requirement to comply with all applicable tree ordinance requirements. As such, the proposed project is consistent with this policy.

GOAL Improved systems of resource use, recovery and reuse.

Policy 9 Improve coordination among operating agencies of all water and waste management systems.

Consistency Evaluation: The proposed project is consistent with this policy in that it is complying with the CEQA review process whereby governmental agencies and the public will have the opportunity to review and comment on this EIR. Comments received from the various governmental agencies will be incorporated into the Final EIR. Additionally, wastewater recycling will require coordination and cooperation among the CLWA, the LACSD, and other regulating agencies.

Policy 10 Encourage compatible, multiple use of water and waste management facilities, including public recreational utilization, where consistent with their original purpose and the maintenance of water quality.

Policy 16 Encourage development and application of water conservation, including recovery and reuse of storm and wastewater.

Consistency Evaluation: Water management and reclamation are integral to the planning efforts pursued by the CLWA and are a significant component of the proposed project. The goals and objectives of the proposed project are consistent with these policies.

GOAL Efficient water and waste management services.

Policy 17 Increase service efficiencies, both within individual agencies and among agencies performing similar functions, while striving to reduce costs.

Consistency Evaluation: Water management and reclamation are integral to the planning efforts pursued by the CLWA. Successful implementation of the proposed project would alleviate some demand on potable water supplies, thereby improving the ability of the CLWA to service its customers. The proposed project is consistent with this policy.

GOAL A high quality of coastal, surface, and ground waters.

Policy 21 Protect public health and prevent pollution of ground water through the use of whatever alternative is necessary.

Policy 22 Provide protection for ground water recharge areas to ensure water quality and quantity.

Consistency Evaluation: The proposed project does not involve the construction of wells for groundwater pumping that would affect existing groundwater supplies. However, it does propose the possible use of treated, perchlorate-contaminated groundwater as a recycled water source if and when made available.

Additionally, the proposed project involves the use of existing and underutilized underground aquifers (such as portions of the Saugus Formation) for storing recycled water, through the proposed ASR facility. Implementation of the proposed project would therefore augment groundwater supplies and avoid infringement of existing groundwater recharge areas. Because of the proximity of the proposed ASR site to the existing potable water aquifer, which is typically confined by the San Gabriel Fault, the potential for cross-contamination of the existing groundwater basin could exist. A more detailed discussion of the potential for groundwater contamination is provided in Section 3.8, Hydrology and Water Quality, of this EIR. The implementation of the recommended mitigation measures and compliance with standard controls and requirements established by the Los Angeles RWQCB and the California Department of Health Services for this project component would ensure consistency with this policy.

Policy 25 Design and construct new water and waste management facilities to maintain or protect existing riparian habitats.

Consistency Evaluation: Impacts associated with the construction of the proposed distribution system, storage tanks, and pump stations are discussed in Section 3.4, Biological Resources, of this EIR. Program-level mitigation measures for avoiding and/or minimizing impacts to riparian habitats are also provided in this section. Furthermore, upon more detailed project-level analysis of these project components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component and compliance with any required resource agency permits that the USACE and the CDFG issue would ensure protection of existing riparian habitats and would therefore achieve consistency with this policy.

Economic Development Chapter

GOAL Improve the coordination of economic activities in order to conserve limited resources and maximize their impact.

Policy 25 Vigorously support measures that will provide an adequate supply of high quality water for Southern California.

Consistency Evaluation: Water management and reclamation are integral to the planning efforts pursued by the CLWA. Successful implementation of the proposed project would improve overall water service reliability to CLWA customers. It would also reduce CLWA's reliance on SWP water, which, in turn, would help to ensure adequate water supply to other communities throughout southern California. The goals and objectives of the proposed project are consistent with these policies.

5.3 SANTA CLARITA VALLEY AREA PLAN OF THE COUNTY OF LOS ANGELES GENERAL PLAN

The Santa Clarita Valley Area Plan (SCVAP) was adopted in 1984 and updated in 1990 by the County of Los Angeles Board of Supervisors. Together with other chapters in the *County of Los Angeles General Plan*, the policies contained in the plan are specific to the future development of the Santa Clarita Valley, which includes the City of Santa Clarita and the unincorporated areas surrounding the city (such as the communities of Newhall, Placerita Canyon, Saugus, Canyon Country, Castaic, and Agua Dulce).

5.3.1 CONSISTENCY WITH PLANS AND POLICIES

The relevant policies from the applicable chapters in the Plan are listed below.

Land Use Element

Policy 1.2 Closely monitor growth in the Santa Clarita Valley, so that growth does not exceed the capacity of the existing or planned infrastructure nor result in significant negative environmental impacts.

Policy 1.3 Provide for development in the study area, which is consistent with the plan, and to encourage other governmental and private agencies to do the same.

Consistency Evaluation: This implementation of the RWMP would support local the government's efforts to accommodate future growth projections and satisfy the future water needs of its residents. The project would indirectly serve approximately 43,960 people in the CLWA service area and is consistent with SCAG growth projections. Overall, the proposed

project would help meet the area's growth projections and related water needs. As such, the proposed project would be consistent with these policies.

Policy 4.2 Designate areas of excessive slope (exceeding 25 percent) as "Hillside Management Areas," with performance standards applied to development to minimize potential hazards such as landslides, erosion, excessive run-off, and flooding.

Consistency Evaluation: Components of the project, including the construction and operation of the proposed new storage tanks, could potentially be located in areas with steep slopes. However, the design of these facilities would be in compliance with standard building code and geotechnical study requirements to ensure that structural failure of these facilities is avoided and/or minimized to the maximum extent practicable. Also, the implementation of the recommended mitigation measures identified in Section 3.6, Geology and Soils, and Section 3.8, Hydrology and Water Quality, of this EIR would reduce the risk of landslides, erosion, excessive run-off, and flooding associated with constructing the reservoir tanks on steep slopes. Additional site-specific mitigation measures would further reduce such hazards. As such, the proposed project would be consistent with this policy.

Policy 5.1 Direct future growth away from areas exhibiting high environmental sensitivity to development unless appropriate mitigating measures can be implemented.

Policy 5.2 Minimize disruption and degradation of the environment as development occurs, working with nature in the design of land uses so that they are compatible with natural environmental systems.

Policy 5.4 Permit appropriate land uses that are compatible with the resource values present in identified Significant Ecological Areas.

Consistency Evaluation: Elements of the proposed project, such as the construction of the storage tanks and ancillary facilities associated with the ASR, may ultimately be located in areas containing sensitive biological resources. Construction of these appurtenant facilities in support of the proposed project could have the potential to directly affect unique and endangered plants and animals as well as their habitats. Program-level mitigation measures for avoiding and/or minimizing impacts to biological resources are provided in Section 3.4, Biological Resources, of this EIR. Furthermore, upon more detailed project-level analysis of these project components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and would therefore achieve consistency with these policies.

Policy 5.5 Minimize environmental degradation by enforcing control on sources of pollutants (including visual pollution and noise).

Consistency Evaluation: The proposed project is consistent with this policy as it would incorporate mitigation measures, where applicable, to avoid or minimize impacts related to soil erosion, air emissions, noise levels, and aesthetic changes.

Policy 7.1 Encourage development of convenient services to meet the needs of Santa Clarita Valley residents including health; education; welfare; police and fire protection; governmental operations; recreation and cultural facilities; and public utilities. Such services should be expanded at a rate commensurate with population growth. Phasing of development and implementation should be timed

to prevent gaps in service as the area grows. Where feasible, service facilities will be established in central urban areas, with branches located in outlying communities. When the population in a community is too small to support a facility, a common facility—to be shared by several small communities—should be established at a central point.

Consistency Evaluation: This implementation of the RWMP would facilitate the local government's efforts to accommodate their growth projections and satisfy the future water service needs of residents. The project would indirectly serve approximately 43,960 people in the CLWA service area and the proposed project would help meet the water needs for the area's growth projections, consistent with the growth projections in local plans. As such, the proposed project would be consistent with this policy.

Policy 14.1 Require adherence to the policies and programs of the General Plan Elements. Proposed amendments which deviate from the Plan's intent will be carefully weighed for appropriateness and impact. Plan flexibility is encouraged as a means of accommodating and inducing innovation for the benefit of the community. However, the Plan should not be flexible to the point that it has no real significance or control. It should be utilized as an active and persuasive tool in guiding the community's future.

Consistency Evaluation: The proposed project is consistent with this policy in that it is complying with the CEQA review process whereby governmental agencies and the public will have the opportunity to review and comment on this EIR. As previously noted, the project is consistent with the policies and programs of the General Plan Elements. As such, the proposed project is consistent with this policy.

Community Design Element

Policy 1.1 Mitigate where possible undesirable impacts of development on adjacent land uses through utilization of appropriate buffers, building codes and standards.

Policy 2.1 Carefully integrate physical development in rural areas into the natural environmental setting.

Consistency Evaluation: The construction and operation of reservoir tanks in hillside areas could present a potentially significant impact to scenic vistas from grading and changes in topography, removal of vegetation, and the placement of a structure in hillside areas. As described in Section 3.1, Aesthetics, mitigation measures requiring the implementation of landform-grading techniques, revegetation, and landscaping would alleviate the potential impacts of the reservoir tanks. As such, the proposed project is consistent with this policy.

Economic Development Element

Policy 1.3 Support infrastructure improvements in appropriate locations, which contribute to development or expansion of employment producing uses.

Consistency Evaluation: The proposed project would result in potable water savings that would support the local government's efforts in meeting their growth projections and in satisfying future water needs of the larger community. The RWMP would be located in areas that best serve the recycled water users. As such, the proposed project would be consistent with this policy.

Public Services and Facilities Element

Policy 1.1 Develop and use groundwater sources to their safe yield limits, but not to the extent that degradation of the groundwater basins occurs.

Policy 1.2 Use imported water to relieve overdrafted groundwater basins and maintain their safe yield for domestic uses outside of urban areas.

Consistency Evaluation: The RWMP would support the goals of preserving potable water resources. Implementation of the RWMP would help the CLWA meet their water supply projections, as set forth in the 2005 UWMP.

Environmental Resources Management Element

Policy 1.4 Protect the viability of surface water, since it provides a habitat for fish and other water-related organisms, as well as being an important environmental component for land-based plants and animals.

Consistency Evaluation: Elements of the proposed project, such as the construction of the storage tanks and ancillary facilities associated with the ASR, may ultimately be located in areas containing sensitive biological resources. Construction of these appurtenant facilities in support of the proposed project could have the potential to directly affect unique and endangered plants and animals as well as their habitats. Program-level mitigation measures for avoiding and/or minimizing impacts to biological resources are provided in Section 3.4, Biological Resources, of this EIR. Furthermore, upon more detailed project-level analysis of these project components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and would therefore achieve consistency with these policies.

Policy 1.6 Protect known archaeological and historical resources to the extent appropriate.

Policy 1.7 Require archaeological surface reconnaissance and impact assessment by a qualified archaeologist for any significant development proposed on, or adjacent to, known archaeological sites.

Consistency Evaluation: The proposed distribution system and booster pump stations would typically be located in previously disturbed areas within existing roadway easements. The discovery of unrecorded cultural resources in these areas is not anticipated. However, because the sitting of the proposed new storage tanks and ancillary facilities associated with the proposed ASR have not yet been determined, general mitigation measures contained in Section 3.5, Cultural Resources, of this EIR are recommended. Implementation of these programmatic mitigation measures would ensure protection of recorded and unrecorded cultural resources and archaeological sites. As such, the proposed project would be consistent with this policy.

It is also expected that a more detailed site-specific analysis would be conducted for each project element to determine the potential presence of such resources. Upon completion of this subsequent investigation and analysis, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact on such resources should they exist. Implementation of the recommended mitigation measures for each project component would ensure protection of cultural resources and therefore achieve consistency with this policy.

Policy 1.8 Promote air quality that is compatible with health, well being, and enjoyment of life. The public nuisances, property, and vegetative damage, and deterioration of aesthetic qualities that result from air pollution contaminants should be prevented to the greatest degree possible.

Consistency Evaluation: Construction of the proposed project would result in the emissions of air pollutants. Implementation of the recommended mitigation measures identified in Section 3.3, Air Quality, of this EIR would reduce direct impacts from temporary construction-related emissions, and operational emissions of the project were determined to be less than significant. With mitigation, the proposed project would be consistent with this policy.

Policy 1.9 Monitor the effectiveness of the County's Oak Tree Ordinance, which was designed to preserve and enhance the oak trees of the Santa Clarita Valley.

Policy 2.1 Protect identified resources in Significant Ecological Areas (shown on the Land Use Policy Map) by appropriate measures including preservation, mitigation and enhancement.

Policy 2.3 Require site level analysis of proposed development projects within Significant Ecological Areas to insure that adverse impacts upon resources within identified Significant Ecological Areas are minimized.

Policy 3.1 Maintain, where feasible, aquifer recharge zones to assure water quality and quantity.

Consistency Evaluation: Elements of the proposed project, such as the construction of the storage tanks and ancillary facilities associated with the ASR, may ultimately be located in areas containing sensitive biological resources. Construction of these appurtenant facilities in support of the proposed project could have the potential to directly affect unique and endangered plants and animals as well as their habitats. Program-level mitigation measures for avoiding and/or minimizing impacts to biological resources are provided in Section 3.4, Biological Resources, of this EIR. Furthermore, upon more detailed project-level analysis of these project components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and therefore achieve consistency with these policies.

Prior to construction of the ASR facility, a hydrogeology analysis and/or water quality analysis of the proposed location of the ASR will be conducted. In order for the ASR to be implemented, the findings of the geotechnical investigation and/or water quality analysis must conclude that the injection of recycled water into the ASR would not have the potential to impact the water quality of the potable groundwater supplies. As such, this component of the proposed project would be consistent with this policy by preventing the intrusion of recycled water into groundwater recharge areas.

Policy 4.3 Support programs to reduce fire hazards in areas of high and extreme fire risk.

Consistency Evaluation: Components of the project, including the construction and operation of the proposed new storage tanks, could potentially be located in fire hazard areas. The construction and presence of the reservoir tanks and appurtenant facilities would not exacerbate this existing hazard with the implementation of the recommended mitigation measures identified in Section 3.7, Hazards and Hazardous Materials. As such, the proposed project would be consistent with this policy.

Noise Element

Policy 1.1 Implement the Noise Element of the County General Plan, which contains policies and programs applicable to the Santa Clarita Valley.

Consistency Evaluation: This EIR requires that mitigation measures related to construction noise and operational noise comply with local standards. As such, implementation of these mitigation measures would ensure that the proposed project is consistent with this policy.

Safety Element

Policy 1.1 Implement the County Safety and Seismic Safety Elements of the County General Plan, which contain policies and programs applicable to the Santa Clarita Valley.

Consistency Evaluation: Components of the project, including the construction and operation of the proposed new storage tanks, could potentially be located in areas prone to seismic hazards. However, the design of these facilities would be in compliance with standard building code requirements to ensure that structural failure of these facilities are avoided and/or minimized to the maximum extent practicable. Also, the implementation of the recommended mitigation measures identified in Section 3.6, Geology and Soils, of this EIR would reduce the risk of seismic hazards. Additional site-specific mitigation measures would further reduce such hazards. As such, the proposed project would be consistent with this policy.

Policy 2.1 Carefully control urban development in areas with identified brush fire hazards, except in areas where fire retardant planting and/or fuel removal have eliminated the fire hazard to the satisfaction of the County Forester.

Consistency Evaluation: Components of the project, including the construction and operation of the proposed new storage tanks, could potentially be located in fire hazard areas. The construction and presence of the reservoir tanks and appurtenant facilities would not exacerbate this existing hazard with the implementation of the recommended mitigation measures identified in Section 3.7, Hazards and Hazardous Materials. As such, the proposed project would be consistent with this policy.

Policy 3.1 Improve programs and practices for dealing with erosion, settlement, and other soil-related hazards.

Policy 3.3 Restrict urban development in areas with known slope stability problems unless appropriate mitigation measures are provided. Prohibit development in these areas until a geologic site investigation has been conducted and mitigating measures have been taken that satisfy the County Department of Public Works.

Consistency Evaluation: Components of the project, including the construction and operation of the proposed new storage tanks, could potentially be located in areas with steep slopes. However, the design of these facilities would be in compliance with standard building code requirements to ensure that structural failure of these facilities are avoided and/or minimized to the maximum extent practicable. Also, implementation of the recommended mitigation measures identified in Section 3.6, Geology and Soils, and Section 3.8, Hydrology and Water Quality, of this EIR would reduce the risk of soil-related hazards associated with constructing the reservoir tanks on steep slopes and other areas with slope-stability issues. Additional site-specific mitigation measures would further reduce such hazards. As such, the proposed project would be consistent with this policy.

Energy Conservation Element

Policy 1.1 Conserve energy in all its forms to a degree commensurate with an optimum level of living and economic activities.

Consistency Evaluation: The proposed project would utilize additional energy for the operation of the recycled water system. The CLWA utilizes energy-conservation measures at its treatment facilities, and would implement energy-conservation measures, where applicable, as part of the proposed project. Thus, the RWMP project would be consistent with this policy.

5.3.2 CONSISTENCY WITH SCVAP GROWTH PROJECTIONS

The Santa Clarita Valley Area Plan (SCVAP) includes population and housing projections for the Santa Clarita Valley adopted by the County of Los Angeles. The projections are based on 1987 population estimates and extend to the year 2010. The SCVAP projects that the Santa Clarita Valley will contain 270,000 persons and 93,400 housing units in 2010. Los Angeles County is in the process of updating the General Plan and upon completion, may adopt new demographic projections.

The 2005 UWMP describes a future recycled water demand of up to 17,400 af/yr in anticipation of the 2030 population levels in local and regional plans (CLWA 2005c). The proposed project would facilitate the distribution of approximately 17,400 af/yr of recycled water, and is therefore consistent with the 2005 UWMP. Thus, the proposed project would serve a portion of the growth projected for the Santa Clarita Valley and would be consistent with Los Angeles County's growth projections.

5.4 CITY OF SANTA CLARITA GENERAL PLAN

The *City of Santa Clarita General Plan* was adopted in 1991. The following goals and policies are applicable to the proposed project.

Land Use Element

GOAL 1 To preserve the character of communities and the integrity of the Santa Clarita Valley by permitting orderly growth through synchronization of development with the availability of public facilities such as roads, sewers, water service and schools needed to support it.

Policy 1.1 Develop and implement a Public Facilities Ordinance that requires that adequate infrastructure to exist or be programmed for construction within a defined period of time as a condition of development approval.

Consistency Evaluation: The project capitalizes on existing known sources of treated wastewater that are currently being underutilized and discharged to the Santa Clara River. Successful implementation of the proposed project would alleviate some demand on potable water supplies, thereby improving the CLWA ability service its customers. Implementation and operation of the proposed project would ultimately support existing urban uses in a manner that would help reduce the demand for potable water.

Although the CLWA does not have the authority to approve development projects, it would likely provide recycled water service to future end-use customers within approved future development areas. Local approvals of new development projects may require recycled water use. Accordingly, implementation of the proposed project would support such planning efforts.

GOAL 7 To preserve the character of the communities and the integrity of the Santa Clarita Valley through orderly development practices and the provision of private and public capital improvements, facilities, and services to support existing and future development.

Policy 7.5 Consider water availability when evaluating development proposals under the land use plan.

Consistency Evaluation: The City of Santa Clarita has the authority to implement its General Plan by approving or denying development plans within its jurisdiction, which could include development served by the proposed project. Although the CLWA does not have the authority to approve local development projects, it would likely provide recycled water service to future end-use customers within approved future development areas. Local approvals of new development projects may require recycled water use. Accordingly, implementation of the proposed project would support such planning efforts.

Open Space and Conservation Element

GOAL 3 To protect significant ecological resources and ecosystems, including, but not limited to, sensitive flora and fauna habitat areas.

Policy 3.2 Encourage the preservation of oak woodlands, oak savannas, and individually significant oak trees through enforcement and revisions to the Oak Tree Ordinance.

Consistency Evaluation: As discussed in Section 3.4, Biological Resources, the CLWA is not required to comply with local ordinances. However, prior to the commencement of grading activities for any component of the RWMP, a qualified Biologist/Arborist shall be consulted to determine the biological/aesthetic value of potentially impacted trees. All impacted native trees would be replaced at a minimum ratio of 1:1 to mitigate for the loss of biological value and all impacted ornamental trees would be replaced at a minimum ratio of 1:1 to mitigate for aesthetic impacts. All impacted trees shall be replaced with appropriate native species at an ultimate ratio to be determined by a qualified Biologist/Arborist. Therefore, the RWMP would be consistent with this policy.

Policy 3.7 Preserve to the extent feasible natural riparian habitat and ensure that adequate setback is provided between riparian habitat and surrounding urbanization.

Consistency Evaluation: As discussed in Section 3.4, Biological Resources, as each component of the RWMP is brought forward for implementation, a qualified Biologist will map and determine the extent and location of all special status vegetation types to be impacted. Impacted special status vegetation types will be restored on site or, if appropriate, off site at a ratio as agreed to by the appropriate agencies (i.e., USACE, CDFG). Therefore, the RWMP would be consistent with this policy.

Policy 3.9 Promote the implementation of the Santa Clara River Study.

Consistency Evaluation: Elements of the proposed project, such as the construction of the storage tanks and ancillary facilities associated with the ASR, may ultimately be located in areas containing sensitive biological resources. Construction of these appurtenant facilities in support of the proposed project could have the potential to directly affect unique and endangered plants and animals as well as their habitats. Program- level mitigation measures for avoiding and/or minimizing impacts to biological resources are provided in Section 3.4, Biological Resources, of

this EIR. Furthermore, upon more detailed project-level analysis of these project components, site-specific mitigation measures would be recommended for avoiding and/or minimizing the degree of impact to these resources. Implementation of the recommended mitigation measures for each project component would ensure protection of vital biological resources and would therefore achieve consistency with these policies. The proposed project would not interfere with the implementation of the Santa Clara River Study.

GOAL 7 To protect the quality and quantity of local water resources, including the natural productivity of all surface and groundwater, and important watershed and recharge areas.

Policy 7.3 Maintain the natural productivity of streams, rivers, and other water bodies by supporting regulatory practices that prevent erosion and minimize pollutant content in surface runoff from major development.

Consistency Evaluation: As discussed in Section 3.8, Hydrology and Water Quality, prior to the commencement of grading activities for construction of each of the proposed project components, the CLWA shall determine whether or not the construction activities are required to obtain coverage under the NPDES General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ) or the NPDES General Permit for Storm Water Discharges Associated with Construction Activity from Small Linear Underground Projects (Water Quality Order 2003-0007-DWQ). If the project component meets the criteria for coverage under either of these two NPDES permits, then the CLWA will be responsible for filing a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP) if applicable, and the appropriate fees to the State Water Resources Control Board, Division of Water Quality in order to obtain coverage under the applicable NPDES permit. Pursuant to the permit requirements, the CLWA shall minimize construction-related pollutants, including erosion-related sediment, in the site runoff, through the implementation of Best Management Practices. Therefore, the RWMP would be consistent with this policy.

Policy 7.1 Protect and preserve the supply and quality of water resources in cooperation with federal, state, and regional water resource planning programs and regulations.

Policy 7.9 Develop local and regional wastewater recycling.

Policy 7.10 Encourage intergovernmental coordination and cooperation among all agencies involved in the management, conservation, and utilization of water resources by jointly developing strategies for a secure water supply.

Policy 7.15 In conjunction with Sanitation Districts and their Board of Directors, establish through ordinance, or resolution, polices that equitably distribute and regulate the use of reclaimed water.

Consistency Evaluation: The nature and intent of the proposed project is consistent with these policies. Water management and reclamation are integral to the planning efforts pursued by the CLWA and are in compliance with state mandates to encourage the development and use of recycled water. Federal, state, and regional coordination and cooperation would be necessary to develop the RWMP. The project capitalizes on existing sources of treated wastewater that currently are being underutilized or discharged to the Santa Clara River. The general goal of using recycled water is to ultimately reduce the demands placed on potable water supplies. The use of recycled water in the Santa Clarita Valley would support local area government efforts in meeting their growth projections and in satisfying future water needs of its residents, as discussed in the 2005 Urban Water Management Plan.

5.5 VENTURA COUNTY GENERAL PLAN

The Ventura County General Plan was most recently amended in 1997. A small portion of the CLWA service area, approximately 13 square miles, extends into Ventura County. This portion is located in the Piru Planning Area, specifically within the "Piru Non-Growth Area". The CLWA service area lands within the Piru Non-Growth Area are designated either Open Space or Agricultural. In addition, the area contains prime agricultural lands. These land use designations are intended to allow rural, rather than urban, development densities and encourage preservation of agricultural uses. The Ventura Countywide 1980-2010 Population Forecast for the Piro Non-Growth Area is a minimal 310 persons. The CLWA does not currently provide water to the residents of this planning area.

It should be noted that no components of the RWMP project would be located in or near the Ventura County portion of the CLWA service area. However, because implementation of a recycled water distribution system ultimately serves the needs of the entire CLWA service area, an analysis of the proposed project's consistency with Ventura County goals and policies has been performed. The following goals and policies are applicable to the proposed project.

Resources Chapter

GOAL 1.3.1.2 Effectively manage the water resources of the County by adequately planning for the development, conservation and protection of water resources, for present and future generation (Water Resources).

GOAL 1.3.1.4 Ensure that the demand for water does not exceed available water resources (Water Resources).

GOAL 1.3.1.6 Promote reclamation and reuse of wastewater for recreation, irrigation and to recharge aquifers (Water Resources).

GOAL 1.3.1.7 Promote efficient use of water resources through water conservation (Water Resources).

Policy 1.3.2.2 Discretionary development shall comply with all applicable County and State water regulations.

Policy 1.3.2.4 Discretionary development shall not significantly impact the quantity or quality of water resources within watersheds, groundwater recharge areas, or groundwater basins.

GOAL 1.5.1 Preserve and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors and locally important species/communities (Biological Resources).

Policy 1.5.2.1 Discretionary development, which could potentially impact biological resources, shall be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures.

Policy 1.5.2.2 Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.

Policy 1.5.2.3 Discretionary development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring or perennial stream (as identified on the latest USGS 7 ½ minute quad map), shall be evaluated by a County approved biologist for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level, or for lands designated "Urban" or "Existing Community," a statement of overriding considerations is adopted by the decision making body.

Policy 1.5.2.4 Discretionary development shall be sited a minimum of 100- feet from significant wetland habitats to mitigate the potential impacts on said habitats.

Policy 1.5.2.5 The California Department of Fish and Game, the U.S. Fish and Wildlife Service, National Audubon Society and the California Native Plant Society shall be consulted when discretionary development may affect significant biological resources. The National Park Service shall also be consulted regarding discretionary development within the Santa Monica Mountains or Oak Park area.

GOAL 1.7.1 Preserve and protect the significant open views and visual resources of the County (Scenic Resources).

Policy 1.7.2.1 Discretionary development which would significantly degrade visual resources or significantly alter or obscure views of visual resources shall be prohibited unless no feasible mitigation measures are available and the decision making body determines there are overriding considerations.

Policy 1.7.2.2 Scenic Resource Areas as depicted on the Resource Protection Map, shall be governed by the provisions of the Scenic Resources Protection Overlay Zone which includes the following: (1) Any request for significant grading shall be evaluated through the discretionary permit process; 2) Removal, damaging or destruction of protected trees shall be in compliance with the County's "Tree Protection Regulations;" and 3) No discretionary development shall be approved which would significantly degrade or destroy a scenic view or vista.

GOAL 1.8.1 Enhance cooperation with cities, special districts, other appropriate organizations, and private landowners in acknowledging and preserving the County's paleontological and cultural resource data base (Paleontological and Cultural Resources).

Policy 1.8.2.1 Discretionary developments shall be assessed for potential paleontological and cultural resource impacts, except when exempt from such requirements by CEQA.

Policy 1.8.2.2 Discretionary development shall be designed or re-designed to avoid potential impacts to significant paleontological or cultural resources whenever possible.

Policy 1.8.2.3 Mitigation of significant impacts on cultural or paleontological resources shall follow the Guidelines of the State Office of Historic Preservation, the State Native American Heritage Commission, and shall be performed in consultation with professionals in their respective areas of expertise.

Policy 1.8.2.4 Confidentiality regarding locations of archaeological sites throughout the County shall be maintained in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

Hazards Chapter

GOAL 2.1.1.3 Shield public and private property and essential facilities from identified hazards and potential disasters.

Policy 2.1.2.3 Essential facilities, special occupancy structures and hazardous materials storage facilities shall be designed and constructed to resist forces generated by earthquakes, gravity, precipitation, fire and wind.

GOAL 2.2.1 Minimize the risk of loss of life, injury, collapse of habitable structures, and economic and social dislocations resulting from fault rupture.

Policy 2.2.2.6 No new essential facilities, special occupancy structures, or hazardous materials storage facilities shall be located within active fault zones unless it can be adequately demonstrated that the facilities are not subject to fault rupture hazard.

GOAL 2.4.1 Minimize the risk of loss of life, injury, collapse of habitable structures, and economic and social dislocations resulting from liquefaction.

Policy 2.4.2 Prior to the issuance of building or grading permits for essential facilities, special occupancy structures, two story single family residences or hazardous materials storage facilities located within areas prone to liquefaction, a geotechnical report that includes a seismic analysis and evaluation of liquefaction in accordance with the State of California Guidelines shall be prepared in order to assess the liquefaction potential and to provide recommendations for mitigation.

GOAL 2.7.1 Minimize the risk of loss of life, injury, collapse of habitable structures, and economic and social dislocations resulting from landslides/mudslides.

Policy 2.7.2.1 Development in mapped landslide/mudslide hazard areas shall not be permitted unless adequate geotechnical engineering investigations are performed, and appropriate and sufficient safeguards are incorporated into the project design.

Policy 2.7.2.2 In landslide/mudslide hazard areas, there shall be no alteration of the land which is likely to increase the hazard, including concentration of water through drainage, irrigation or septic systems, removal of vegetative cover, and no undercutting of the bases of slopes or other improper grading methods.

Policy 2.7.2.3 Drainage plans that direct runoff and drainage away from slopes shall be required for construction in hillside areas.

GOAL 2.8.1 Minimize the risk of damage to structures from the effects of expansive soils.

Policy 2.8.2.1 Construction must conform to established standards of the Ventura County Building Code, adopted from the California Building Code.

Policy 2.8.2.2 A geotechnical report, prepared by a registered civil engineer and based upon adequate soil testing of the materials to be encountered at the sub-grade elevation, shall be submitted to the County Surveyor, Environmental Health Division, and Building and Safety for every applicable subdivision and Building Permit application (as required by the California Building Code).

GOAL 2.11.1 Minimize the risk of loss of life, injury, damage to property, and economic and social dislocations resulting from inundation by dam failure.

Policy 2.11.2 Dams shall be designed to withstand catastrophic events. The dams should be located to ensure their safety from all maximum credible seismic events.

Land Use Chapter

GOAL 3.1.1.1 Ensure that the County can accommodate anticipated future growth and development while maintaining a safe and healthful environment by preserving valuable natural resources, guiding development away from hazardous areas, and planning for adequate public facilities and services. Promote planned, well-ordered, and efficient land use and development patterns.

GOAL 3.1.1.4 Ensure that land uses are appropriate and compatible with each other, and guide development in a pattern that will minimize land use conflicts between adjacent land uses.

Policy 3.1.2.3 Any land use shall be deemed consistent with the General Plan if it is permitted under a zoning designation which is consistent with Policy Number 2 above, and if the land use does not conflict with any other policy of the County General Plan.

Public Facilities and Services Chapter

GOAL 4.3.1.1 Ensure the provision of water in quantities sufficient to satisfy current and projected demand (Water Supply Facilities).

GOAL 4.3.1.2 Encourage the employment of water conservation measures in new and existing development (Water Supply Facilities).

GOAL 4.3.1.3 Encourage the continued cooperation among water suppliers in the County in meeting the water needs of the County as a whole (Water Supply Facilities).

Policy 4.3.2.2 Discretionary development shall be conditioned to incorporate water conservation techniques and the use of drought resistant native plants pursuant to the County's Guide to Landscape Plans.

Consistency Evaluation: CLWA does not presently provide potable water to the Piru Planning Area. Additionally, the RWMP does not propose to extend into the County of Ventura. Therefore, the RWMP project would not directly affect, nor conflict with, any of the applicable goals and policies listed above.

5.6 CLWA WATER MANAGEMENT PLANS

5.6.1 2005 URBAN WATER MANAGEMENT PLAN

An Urban Water Management Plan (UWMP) is a planning tool whose periodic preparation (every five years, in years ending with a 5 and 0) is mandated by the State Legislature pursuant to the California Urban Water Management Planning Act (Act). It generally guides the actions of water management agencies, serves as a management tool, and provides a framework for action, not functioning as a detailed project development or action. As encouraged by the Act, the 2005 UWMP was prepared for the regional CLWA service area, which includes the service area of the four retail water purveyors. The UWMP presents information about water demand, water supply, water conservation, water recycling, and reliability planning in the CLWA's service area.

Population Projections

The methodology used in the 2005 UWMP to project future water demand is based on numerous interrelated factors, including population projections. Growth projections for the 2005 UWMP were developed by a joint planning effort between the City of Santa Clarita and the Los Angeles County Department of Regional Planning called *One Valley One Vision* (OVOV). The OVOV task force used data provided by SCAG's Regional Transportation Plan (RTP), the State Department of Finance (DOF), and the Employment Development Department. On May 11, 2005, the OVOV team agreed to use these adjusted RTP data for the *Santa Clarita Valleywide General Plan Update* (CLWA 2005c). Table 5.6-1 summarizes the population projections used in the 2005 UWMP and reflected in the *Santa Clarita Valleywide General Plan Update.*

TABLE 5.6-1
ADJUSTED SANTA CLARITA VALLEYWIDE
GENERAL PLAN POPULATION PROJECTIONS[a,b]

Jurisdiction	2000[c]	2005	2010	2015	2020	2025	2030	Change	Average Annual Growth
City of Santa Clarita									
Population	151,088	171,290	196,680	210,280	222,290	232,830	242,620	91,532	1.6%
Households	50,787	55,614	62,837	67,832	72,883	77,868	82,806	32,019	1.6%
Employment	51,380	59,640	68,820	73,240	77,490	81,460	85,190	33,810	1.7%
Jobs/Household Ratio	1.01	1.07	1.10	1.08	1.06	1.05	1.03	0.02	NA
Persons per Household	2.97	3.08	3.13	3.10	3.05	2.99	2.93	(0.04)	NA
Santa Clarita Valley Unincorporated Area									
Population	61,523	78,053	105,094	125,850	146,401	166,557	185,589	124,066	3.7%

TABLE 5.6-1 (Continued)
ADJUSTED SANTA CLARITA VALLEYWIDE
GENERAL PLAN POPULATION PROJECTIONS[a,b]

Jurisdiction	2000[c]	2005	2010	2015	2020	2025	2030	Change	Average Annual Growth
Households	17,973	20,645	28,108	34,609	41,154	47,971	54,630	36,657	3.8%
Employment	10,790	13,900	18,830	23,190	27,980	33,080	38,240	27,450	4.3%
Jobs/Household Ratio	0.60	0.67	0.67	0.67	0.68	0.69	0.70	0.10	NA
Persons per Household	3.42	3.78	3.74	3.64	3.56	3.47	3.40	(0.03)	NA
Santa Clarita Valley Planning Area[d]									
Population	212,611	249,343	301,774	336,130	368,691	399,387	428,209	215,598	2.4%
Households	68,760	76,259	90,945	102,441	114,037	125,809	137,436	68,676	2.3%
Employment	62,170	73,540	87,650	96,430	105,470	114,540	123,430	61,260	2.3%
Jobs/Household Ratio	0.90	0.96	0.96	0.94	0.92	0.91	0.90	(0.01)	NA
Persons per Household	3.09	3.27	3.32	3.28	3.23	3.17	3.12	0.02	NA

Source: CLWA 2005c.
Notes:
(a) Source: SCAG 2004.(b) The SCAG population and household projections are used as control totals for the entire OVOV planning area while the allocation between the City and unincorporated areas is based on 2000–2003 DOF population and household trend data. The 1998–2003 Employment Development Department data is used to calibrate the 2005 base year for employment. However, the employment totals for the unincorporated area are allowed to exceed the SCAG RTP 2004 forecast based on local information from the County of Los Angeles Department of Regional Planning Staff.
(c) 2000 Population and Household data is based on DOF estimates benchmarked to the 2000 U.S. Census figures.
(d) The Santa Clarita Valley Planning Area estimates are the sum of the City and unincorporated areas.

Based on Table 5.6-1, the CLWA service area is projected to have a population of approximately 428,209 by the year 2030.

Consistency Evaluation

The proposed recycled water supply, as described in the RWMP, is included in CLWA's 2005 UWMP. As water demands continue to increase, additional reliable sources of water will be necessary. The use of recycled water is an important component of the 2005 UWMP because it would enhance reliability and allow for more effective utilization of available water supplies (CLWA 2005c). As shown in Table 5.6-2, recycled water is a component of both the current and planned water supplies necessary to meet future demand.

The RWMP is also a component of the CLWA's 2005 UWMP, most recently updated in November 2005. The RWMP estimates that up to 17,441 af/yr of recycled water would be available for landscape irrigation, industrial processes, and other non-potable uses. The 2002 RWMP's forecast for recycled water availability is slightly higher than the 2005 UWMP. The 2005 UWMP refined the forecasted availability of recycled water based on more current information, and anticipates the total potential annual recycled water demand will be approximately 17,400 af/yr by the year 2030 (CLWA 2005c). Therefore, it is assumed, that implementation of the RWMP would enable the reclamation of 17,400 af/yr, consistent with the recently updated UWMP.

TABLE 5.6-2
SUMMARY OF CURRENT AND PLANNING WATER SUPPLIES AND BANKING PROGRAMS[a]

Water Supply Sources	Supply (af)					
	2005	2010	2015	2020	2025	2030
Existing Supplies						
Wholesale (Imported)	70,380	73,660	75,560	76,080	77,980	77,980
SWP Table A Supply[b]	65,700	67,600	69,500	71,400	73,300	73,300
Flexible Storage Account (CLWA)[c]	4,680	4,680	4,680	4,680	4,680	4,680
Flexible Storage Account (Ventura County)[c, d]	0	1,380	1,380	0	0	0
Local Supplies						
Groundwater	40,000	46,000	46,000	46,000	46,000	46,000
Alluvial Aquifer	35,000	35,000	35,000	35,000	35,000	35,000
Saugus Formation	5,000	11,000	11,000	11,000	11,000	11,000
Recycled Water	1,700	1,700	1,700	1,700	1,700	1,700
Total Existing Supplies	**112,080**	**121,860**	**123,260**	**123,780**	**125,680**	**125,680**
Existing Banking Programs[c]						
Semitropic Water Bank[e]	50,870	50,870	0	0	0	0
Total Existing Banking Programs	50,870	50,870	0	0	0	0
Planned Supplies						
Local Supplies						
Groundwater	0	10,000	10,000	20,000	20,000	20,000
Restored Wells (Saugus Formation)	0	10,000	10,000	10,000	10,000	10,000
New Wells (Saugus Formation)	0	0	0	10,000	10,000	10,000
Recycled Water[f]	0	0	1,600	6,300	11,000	15,700
Transfers						
Buena Vista-Rosedale[g]	0	11,000	11,000	11,000	11,000	11,000
Total Planned Supplies	**0**	**21,000**	**22,600**	**37,300**	**42,000**	**46,700**
Planned Banking Programs[3]						
Rosedale-Rio Bravo	0	20,000	20,000	20,000	20,000	20,000
Additional Planned Banking	0	0	20,000	20,000	20,000	20,000
Total Planning Banking Programs	**0**	**20,000**	**40,000**	**40,000**	**40,000**	**40,000**

Source: CLWA 2005c, 2005.

Notes:

(a) The values shown under "Existing Supplies" and "Planned Supplies" are supplies projected to be available in average/normal years. The values shown under "Existing Banking Programs" and "Planned Banking Programs" are either total amounts currently in storage or the maximum capacity of program withdrawals.

(b) SWP supplies are calculated by multiplying CLWA's Table A Amount of 95,200 af by percentages of average deliveries projected to be available, taken from Table 6-5 of DWR's "Excerpts from Working Draft of 2005 State Water Project Delivery Reliability Report" (May 2005).

(c) Supplies shown are total amounts that can be withdrawn, and would typically be used only during dry years.

(d) Initial terms of use of the Ventura County entities' flexible storage account is ten years (from 2006 to 2015).

(e) Supplies shown are the total amount currently in storage, and would typically be used only during dry years. Once the current storage amount is withdrawn, this supply would no longer be available and, in any event, is not available after 2013.

(f) Recycled water supplies based on projections provided in Chapter 4 of 2005 UWMP (Recycled Water), (CLWA 2005).

(g) The CLWA is in the process of acquiring this supply, primarily to meet the potential demands of future annexations to the CLWA service area. This acquisition is consistent with CLWA's annexation policy under which it will not approve potential annexations unless additional water supplies are acquired. Currently proposed annexations have a demand for about 4,000 af/yr of this supply, which, if approved, would leave the remaining 7,000 af/yr available for potential future annexations. Unless and until any such annexations are actually approved, this supply will be available to meet demands within the existing CLWA service area.

5.6.2 CLWA GROUNDWATER MANAGEMENT PLAN, SANTA CLARA RIVER VALLEY GROUNDWATER BASIN, EAST SUBBASIN, LOS ANGELES COUNTY, 2003

In January 2002, the CLWA initiated the preparation of a groundwater management plan (GMP) pursuant to the requirements of Sections 103-105.1 of the CWA Act and Section 10,750 et. seq. of the *California Water Code*. The CLWA adopted the GMP on December 10, 2003. The GMP describes the Santa Clara River Valley Groundwater Basin and East Subbasin, historic and projected water use, and requirements of the affected area. In addition, the document provides a framework for present and future actions to develop groundwater while avoiding groundwater overdraft and preserving groundwater quality (including addressing perchlorate concentrations), and it also discusses interrelated surface water resources.

Consistency Analysis

The GMP includes "Primary Element 7 – Integration of Recycled Water" which states that the RWMP will benefit the accomplishment of other elements of the GMP and all four Basin Goals. The RWMP project is consistent with the GMP because it supports efforts to avoid groundwater overdraft, preserve surface water quality, and maintain existing groundwater recharge areas. As presented in the 2005 UWMP, the use of recycled water has been anticipated for decades and is incorporated into the water supply-and-demand projections of the CLWA service area. Therefore, implementation of the RWMP is necessary in order to meet the anticipated water demands in the area.

The RWMP preserves surface water quality because no recycled water would be directly discharged to surface waters. Any incidental runoff from over-irrigation would not result in an impact to surface water quality, as discussed in Section 3.8, Hydrology and Water Quality. Groundwater recharge areas would be maintained through the proposed aquifer storage and recovery system (ASR). Under the ASR approach, during wet winter months, when recycled water production is at its peak, but demand is low, recycled water would be injected below the ground surface into the Saugus Formation north of the San Gabriel Fault, where the Saugus Formation thins and is not utilized for potable water purposes; this would allow potable water wells to be separated from the recycled water ASR injection facilities by the fault. During dry summer months, when demand is highest, the recycled water would be extracted from the Saugus Formation and delivered to customers.

5.7 SANTA CLARA RIVER ENHANCEMENT AND MANAGEMENT PLAN (SCREMP)

The Santa Clara River, the largest relatively unchanneled river system in southern California, traverses through the CLWA service area from its easternmost boundary limit to its westernmost boundary limits. Because of its ecological value and its ability to provide for an abundance of diverse physical resources and economic opportunities, the Ventura County Watershed Protection District and the Los Angeles County Department of Public Works Watershed Management Division, in association with other stakeholders such as the United States Army Corps of Engineers (USACE), have jointly prepared a plan to manage the river, its floodplain, and related resources.

This plan is known as the Santa Clara River Enhancement Management Plan (SCREMP) and it identifies specific goals, policies, and programs for protecting and managing the river's watershed for both natural and economic gains. The entire length of the Santa Clara River, along with its adjacent floodplain, is designated within a Significant Ecological Area (SEA) as identified by the County of Los Angeles. There are seven Riverwide Policies (RPol) of the SCREMP that are relevant to the proposed project and which address the development and environmental review of projects in order to preserve or restore specific habitats within the 500-year floodplain. A brief summary of these policies is provided below:

RPol 1 Preservation of Existing Native Habitats

To encourage, support, and facilitate the preservation of existing high quality native riparian and upland habitat sites within the 500-year floodplain that demonstrate relatively high native species richness and abundance and/or use by species considered to be sensitive by federal, state, and local governmental entities and/or provides movement and migration routes for native species.

RPol 2 Restoration and Enhancement of Habitats

To encourage, support, and facilitate the restoration and enhancement of biological habitats on degraded sites within the 500-year floodplain. Existing lands that provide beneficial uses for the general public including agricultural production, flood protection, groundwater recharge, public transportation, and public utilities, are not considered here under this policy as degraded sites.

RPol 3 Aquatic Habitat and Wetland Habitat Preservation and Enhancement

To encourage, support, and facilitate the preservation and enhancement of aquatic habitats and wetland habitats within the 500-year floodplain and, thereby, the sensitive and common wildlife species that use these habitats as specified by the SCREMP.

RPol 4 Protection and Recovery of Sensitive Species

To encourage, support, and facilitate: (i) the protection and recovery of federal and state listed endangered and threatened species in accordance with the provisions in FESA and CESA [Federal Endangered Species Act and California Endangered Species Act], respectively, to such a condition that listed species recovery warrants de-listing the species; (ii) the protection of State Fully Protected species as specified in the Fish and Game Code; and (iii) the protection of all other categories of species regarded as "sensitive species" by federal and state resources management agencies, and local governmental entities in accordance with the provisions in CEQA.

RPol 6 Identifying and Evaluating Potential Impacts to Biological Resources

To encourage, support, and facilitate the exercise of due diligence by lead agencies when conducting an environmental review and evaluating the significant level of potential impact to native species, native habitats, and the ecological processes that sustain both, with the 500-year floodplain, according to all applicable environmental laws, codes, regulations and ordinances, and based on the best-available scientific and factual data.

RPol 7 Avoidance and Mitigation of Impacts to Biological Resources

To encourage, support, and facilitate that all projects will be designed, and all activities will be conducted, in the SCREMP Area in such a manner so as to avoid and/or minimize ecological impacts to the maximum extent feasible, and that impacts will be mitigated appropriate to the magnitude of the impact and the ecological value of the resources.

Consistency Evaluation

The proposed project would contribute to the maintenance of existing habitats as the RWMP reduces effluent volumes discharged into the Santa Clara River, thereby preserving surface water quality. Construction of the RWMP project would adhere to all requirements of the NPDES permit related to control of erosion and stormwater runoff, which would protect the Santa Clara River to the maximum extent practicable. Potential environmental impacts to biological resources and their level of significance have been identified in Section 3.4, Biological Resources, of this EIR. Mitigation measures to avoid or minimize the impacts have been described. Therefore, the proposed project is consistent with these policies.

Additionally, the proposed project is consistent with these policies in that it is complying with the CEQA review process whereby interested and vested governmental agencies will have the opportunity to review and comment on this EIR. Comments received from the various governmental agencies will be incorporated into the Final EIR.

5.8 NATURAL RIVER MANAGEMENT PLAN (NRMP)

The Natural River Management Plan (NRMP) was developed by Valencia Company and approved by the USACE. The project and activities described in the NRMP require a USACE Section 404 permit and/or a CDFG 1601/1603 Streambed Alteration Agreement. The projects include river bank protection, bridges, inlet structures, utility lines, and storm drain outlets associated with future residential, commercial and industrial projects over the next 20 years. The NRMP outlines numerous projects currently covered under these permits and the mitigation measures placed upon them to be in compliance with the NRMP permits.

The project area includes the South Fork of the Santa Clara River, the mouth of Bouquet Creek, San Francisquito Creek, and the mainstem of the Santa Clara River from near the Los Angeles Aqueduct crossing to the Castaic Creek confluence. Most projects will be carried out by Valencia Company, while other projects may be carried out by private entities or public agencies using the above referenced permit and agreement issued to Valencia Company (the permittee/operator). A public agency other than Valencia Company can seek coverage under these permits by accepting Valencia's duties and authorizations under the Agreement and Permit, including monitoring and reporting obligations.

Consistency Evaluation

As discussed in Section 3.4, Biological Resources, construction of some of the proposed RWMP components may result in impact to jurisdictional resources within the NRMP area. Within these areas, the necessary permits from the USACE and CDFG may be processed in accordance with the NRMP or through application for separate permits from these agencies. If the NRMP permits are utilized, the conditions of the permit, as described in the NRMP, would be adhered to. Therefore, the project would not conflict with the provisions of the NRMP and no impact is expected.

SECTION 6.0 CUMULATIVE IMPACTS

6.1 CEQA REQUIREMENTS

This section presents a discussion of cumulative impacts as required by CEQA Guidelines, Section 15130 et. seq. Cumulative impacts refer to "two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts." A cumulative impact is the change in the environment that results from the incremental impact of a project when added to other, closely related past, present, or reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant impacts that take place over time.

An EIR must discuss the cumulative impacts of a project when the project's incremental impact is cumulatively considerable (CEQA Guidelines, Section 15130[a]). "Cumulatively considerable" means that the project's incremental effects are significant when viewed in connection with the impacts of other, related projects (CEQA Guidelines, Section 15065[a][3]). In this analysis, if the proposed project's incremental impact would be cumulatively considerable in combination with the impacts of other related projects, the impact is identified as a "significant cumulative impact."

6.2 CUMULATIVE IMPACTS APPROACH

Projects included in the cumulative impact analysis were identified using three major approaches, as discussed in CEQA Guidelines Section 15130(b)(1). Projects considered in this cumulative analysis include:

- CLWA and other water-related supply, management, and distribution projects
- Land use development within the Santa Clarita Valley
- Land development projects located in the vicinity of the Northwest Spur Pipeline

Individual water and land use development projects are evaluated for cumulative impacts in combination with the direct effects of the implementation of the RWMP. Additionally, the potential for cumulative indirect impacts that result from projected growth associated with both water and land development projects are evaluated. For the purposes of this analysis, the RWMP components are discussed first, followed by a discussion of cumulative impacts related to the Northwest Spur Pipeline in Section 6.3.5.

The proposed project direct impacts are discussed in Section 3.1, Aesthetics, through Section 3.16, Utilities and Service Systems. Environmental factors that were not impacted or had less-than-significant impacts include agricultural resources, land use and planning, mineral resources, population and housing, public services, and recreation. Environmental factors that were mitigated to less-than-significant include aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, and utilities and service systems. Construction-related air quality and noise impacts would be significant and unavoidable. According to the Los Angeles County Department of Regional Planning, substantial development is planned in the CLWA service area in the near future and during the RWMP construction period, which would occur in phases over approximately 25 years. Implementation of the RWMP has the potential to result in cumulative direct impacts when considered in conjunction with the related projects. Cumulative impacts are discussed in Section 6.3.

6.3 CUMULATIVE IMPACT ANALYSIS

This section describes the projects included in the cumulative impact analysis, the status of their environmental documentation, the anticipated environmental impacts of those projects, and the potential cumulative impacts of those projects in combination with the proposed project.

6.3.1 OTHER WATER-RELATED PROJECTS

This section provides a discussion of the potential cumulative impacts associated with other projects, including CLWA water supply, management, and distribution projects. CLWA's State Water Project (SWP) contract permits purchasing up to 95,200 acre-feet (af) of SWP water annually ("Table A Amount"). This 95,200 af of Table A Amount is dependent upon SWP availability in any specific year and upon other contract provisions. CLWA's 95,200 af of Table A Amount was acquired by contract and has undergone all legally required environmental analysis. CLWA's SWP water is currently treated by either the Rio Vista Water Treatment Plant (RVWTP) or the Earl Schmidt Filtration Plant (ESFP), which was recently expanded. Both treatment plants have also undergone all legally required environmental analysis. The treated portion of the 95,200 af of Table A Amount is part of the baseline for this project. The RWMP will allow more of the CLWA 95,200 af of Table A Amount to be used for potable uses. The project will, therefore, remove an obstacle to growth and be cumulatively considerable when added to the overall impacts of the 95,200 af of Table A Amount, thereby resulting in potentially cumulatively significant, indirect impacts on all environmental resources. Other projects in addition to the 95,200 af of Table A Amount and the existing ESFP and RVWTP are discussed below.

CLWA Water Acquisition from the Buena Vista Water Storage District and Rosedale Rio Bravo Water Storage District (BVWSD/RRBWSD) Storage and Recovery Program

Project Description

Under this project, the CLWA would purchase an annual water supply of 11,000 af from BVWSD/RRBWSD for a renewable 30-year period. The amount of water purchased would be available through an existing groundwater storage program. The California Aqueduct would be used to deliver both exchanged SWP water and banked water to the CLWA on a space-available basis within the capacity of SWP facilities. Water purchased from BVWSD/RRBWSD would be delivered to the CLWA as needed to meet the demands of its service area. Should delivery of the water not be required in a given year, the CLWA would have the option to store the water in any groundwater storage or banking program to which it has access. In accordance with the applications for annexation filed with the CLWA, a portion of the water acquired from BVWSD/RRBWSD could be allocated to meet the water demands of those lands. No new construction would be required to implement the project.

Environmental Analysis Status and Anticipated Impacts

An Initial Study and Notice of Preparation for this project were released on January 31, 2006, a Draft EIR was released for public review in June 2006, and the Final EIR was certified on October 25, 2006. The project would result in minimal direct environmental impacts to the CLWA service area because no new construction would be required. Indirect impacts to all environmental resources could result from the new development served by water provided by this project on the annexed lands. Additionally, it is anticipated that the CLWA water acquisition project would result in indirect growth-related impacts; the 11,000 acre-feet per year (af/yr) of water acquired as a result of this project would be able to serve approximately 37,850 people or 11,830 residences.

Cumulative Impacts with Project

No new construction would be required to implement this project, whereas the majority of the impacts associated with the RWMP are construction-related. Therefore, this project in combination with the RWMP would not result in significant cumulative impacts.

CLWA/Rosedale-Rio Bravo Water Storage District Water Banking and Exchange Program

Project Description

This approved project is CLWA's participation in the Rosedale-Rio Bravo Water Storage District Storage, Banking, Exchange, Extraction and Conjunctive Use Program (RRBWSD Program). The CLWA will take delivery of its total SWP Table A Amount allocation and any other SWP water supplies made available by the California Department of Water Resources (DWR) to the SWP Contractors, and deliver to RRBWSD the portion of that water that is not needed to meet its demands (typically in wetter years), up to 20,000 af/yr. The RRBWSD will store up to 20,000 af/yr of CLWA's unused SWP deliveries for later withdrawal and delivery to the CLWA service area in a future year or in years when demand in the CLWA service area is greater than supply (i.e., in drier years). The California Aqueduct would be used to deliver both exchanged SWP water and banked water to the CLWA on a space-available basis within the capacity of SWP facilities. Additional yearly storage capacity may be provided from time to time as determined by the RRBWSD; however, the maximum amount of stored water that the CLWA will have in the RRBWSD's Program at any point in time is 100,000 af. Over the life of the Project, the CLWA will be able to store a total of 200,000 af in the RRBWSD's Program. The CLWA will be able to request the withdrawal of 20,000 af/yr from the RRBWSD's Program and could potentially request withdrawal of up to 45,000 af/yr of its banked water, but that would require RRBWSD to construct additional extraction facilities. The CLWA's use of the RRBWSD Program will be in accordance with permitted operating conditions.

This is a long-term banking and exchange Project that will last through 2035, the length of CLWA's Water Supply Contract with DWR, although it may be extended beyond that date concomitant with any extension of the Water Supply Contract. This project has a limitation of use because it is a water management program to improve the reliability of the CLWA's existing dry-year supplies; it is not and should not be considered an annual supply that could support growth.

Environmental Analysis Status and Anticipated Impacts

The CLWA certified the Final EIR, approved the project, and filed the Notice of Determination in October 2005. This project will not result in adverse impacts to aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. This project will result in less-than-significant impacts to air quality and hazards and hazardous materials from the increased use of electrical power and hazardous materials required to operate water SWP pumps when the CLWA requests use of its stored water during dry years. The project will not result in indirect impacts. This project is not growth-inducing since it would not add to the CLWA's existing SWP contract with DWR or to CLWA's Table A supply (i.e., it is not a new supply that would be available annually and continue indefinitely) and thus is not a water source that could be considered for new development.

Cumulative Impacts with Project

The significant temporary air quality impact from RWMP implementation would not be cumulatively considerable in combination with the less-than-significant air quality impacts of the RRBWSD because electric generation would not be in the same air basin as the RWMP and because additional air quality impacts from electric generation would not be substantial. Construction noise impacts from the RWMP would not be cumulatively considerable because there would be no noise impacts associated with the RRBWSD Program. All RWMP impacts would not be cumulatively considerable because they are temporary and less than significant with mitigation.

Honby Pipeline

Project Description

This project is the construction of a 60-inch buried steel water pipeline in a new alignment to replace the existing 22-inch Honby Pipeline. The pipeline would be approximately 9,500 feet in length and the project would be conducted in two phases. The first phase would be completed before construction of the Rio Vista Water Treatment Plant (RVWTP) expansion would begin. It would consist of the construction of a 2,500-foot segment of the pipeline that would connect to the 84-inch Treated Water pipeline that leads from the RVWTP. From the point of connection with the Treated Water pipeline, the 2,500-foot segment would continue in Newhall Ranch Road and would connect to the existing Honby Pipeline. The second phase, expected to begin in the winter of 2006, would consist of the construction of the remaining 7,000-foot segment of the pipeline. The 7,000-foot segment would continue the pipeline from the end of the 2,500-foot segment, at its point of connection to the existing Honby Pipeline (on the north bank of the Santa Clara River on the west side of the aboveground California Aqueduct), to the new Sand Canyon pump station. No new water supply is associated with this pipeline project. The proposed pipeline would transport water that is part of the CLWA's supply.

Environmental Analysis Status and Anticipated Impacts

In July 2005, the CLWA certified the Final EIR on the Honby Pipeline project, approved the project, and filed the Notice of Determination. The EIR found that construction of the pipeline would result in temporary, less-than-significant air quality impacts; significant biological impacts (removal of riparian, wetland, and upland habitat); and temporary significant noise impacts. The project would make additional water available to a portion of the CLWA service area and could serve approximately 154,900 more persons than the existing pipeline. The increased pipeline capacity is considered to be growth-inducing because it is deemed to remove an obstacle to population growth. As such, the Honby Pipeline project would result in significant growth-related indirect impacts to all environmental resources.

Cumulative Impacts with the Project

Impacts to biological resources would be cumulatively less than significant because impacts of both projects would be fully mitigated; moreover, the RWMP projects impacts to air quality would be cumulatively less than significant because construction equipment would be mobile and operated intermittently. Both projects would be required to comply with South Coast Air Quality Management District's (SCAQMD) Rule 403 to reduce fugitive dust, and emissions would be short-term and localized. Noise impacts would be cumulatively less than significant because construction activities would be located sufficiently far apart that the noise impacts of construction would not be additive. All other impacts would not be cumulatively considerable because they are temporary and less than significant with mitigation.

Sand Canyon Pipeline and Reservoir Project (aka Honby Extension and Storage Project)

Project Description

The CLWA is in the process of constructing the Sand Canyon Pipeline, Pump Station, and Storage Reservoir Project (formerly known as the Honby Extension/Storage Reservoir). The project includes a 48-inch, approximately 30,000-foot-long water pipeline, originating near the intersection of Furnivall Avenue and Santa Clara Street where the new Sand Canyon pump station is also being constructed. The pipeline will travel from the new pump station easterly and southerly, terminating in a new storage reservoir west of Rolling Hills Avenue and Warmuth Road. The new pump station will provide the lift to transport water to the proposed 7-million-gallon storage reservoir. Construction of the pipeline and booster pump station began in 2006 and is currently under construction, and the reservoir construction will likely be completed in late 2006.

Project's Environmental Analysis Status and Anticipated Impacts

The environmental impacts from construction and operation of this project were evaluated in two Mitigated Negative Declarations (MND). The CLWA adopted the Initial Study and MND for the Extension of Imported Water Transmission Systems in the CLWA service area in February 1999. Additionally, the CLWA adopted the Initial Study and MND for the Honby Extension and Storage-1 in February 2000. The project evaluated in the 2000 MND was considered to be an interim project of the Honby Extension project that was evaluated in the 1999 MND. Hilltop construction of the storage reservoir incorporates design elements to address site-specific geology including landslides, mudflows, and safety issues. Significant but mitigable impacts were identified for geology and soils (erosion, sedimentation, expansive soils, and collapsible soils), water quality (discharge of pollutants into adjacent water bodies), air quality (construction-related air emissions), transportation and traffic (related to emergency access and bicycle/pedestrian traffic along the Santa Clara River), biological resources (e.g., least Bell's Vireo, southwestern willow flycatcher, alluvial scrub habitat, nesting of migratory birds), noise (construction-related), and aesthetics (related to construction of the pump station and reservoir).

Cumulative Impacts with the Project

Construction of the RWMP would not be initiated for several years after the completion of the Sand Canyon project. Therefore, there would be no cumulative construction-related impacts. Potentially significant, but mitigable, operational impacts for the RWMP were also identified for aesthetics, biological resources, and geology and soils. Because these impacts would be avoided or reduced to less than significant with mitigation, long-term impacts from the RWMP would not be cumulatively considerable.

Pitchess Pipeline (aka Lateral Extension)

Project Description

The Pitchess Pipeline is a 24-inch, approximately 4,300-foot-long pipeline that would originate east of Interstate 5 and terminate near the intersection of The Old Road and Sedona Way in unincorporated Los Angeles County. A portion of the pipeline is located within the Pitchess Honor Farm, and a portion also crosses Castaic Creek. The Pitchess Pipeline will provide imported water to supplement existing groundwater supplies currently used by local purveyors for the demand generated in the northwestern portion of the CLWA service area. Construction was completed in May 2006.

Project's Environmental Analysis Status and Anticipated Impacts

The CLWA approved an EIR for the project in 1999, which was then referred to as the Lateral Extension. Construction of the Pitchess Pipeline project would result in temporary but significant impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, transportation, and water quality. Operation of the Pitchess Pipeline project would result in indirect impacts to environmental resources from growth-related development. Surveys for the arroyo toad were conducted at the Castaic Creek crossing and surveys for active nests of migratory birds were conducted in the construction area. Based on the results of the surveys, no additional measures are needed to reduce biological impacts to these species.

Cumulative Impacts with the Project

Direct impacts from construction of the Pitchess Pipeline project to air quality, geology and soils, hazards and hazardous materials, noise, transportation, and water quality would be short-term and localized. The Pitchess Pipeline would be completed prior to the construction of any RWMP components. Therefore, this project would not result in cumulatively significant impacts related to construction. There would be no long-term cumulative aesthetic impacts because the pipeline would be fully buried. Other long-term direct impacts from implementation of the RWMP to biological resources, cultural resources, geology and soils, hazardous materials, and land use would not be cumulatively considerable because they would be fully mitigated to a less-than-significant level.

Sky Blue Tank Site Additions

Project Description

In April 2003, the CLWA approved an MND for the Sky Blue Tank Site Additions (the Sky Blue project), a project of CLWA's Santa Clarita Water Division (SCWD), a retail purveyor. The project includes construction of two aboveground water storage tanks and an associated storm drainage system on a site owned by the purveyor. One tank has already been constructed; it is anticipated that the second tank will be constructed in the winter of 2006. This site already contains a 1 million gallon (MG) water tank and a 2 MG water tank. Access to the site would be provided by the existing access road off Whites Canyon Road just north of Enderly Street. The project will provide peak hour water storage for an approved residential development and will complete the water supply for this development. The Sky Blue Project MND addressed only impacts resulting from the construction of the tanks. No new water supply is associated with this project.

Project's Environmental Analysis Status and Anticipated Impacts

The Sky Blue Project MND identified significant impacts that would be reduced to less than significant after implementation of mitigation measures for the following resources: biological resources, geology and soils, hazards (construction in a high fire hazard area), hydrology and water quality, and land use and planning. It identified less-than-significant impacts for the following resources: aesthetics, air quality, noise, transportation and traffic, and utilities and service systems.

Cumulative Impacts with the Project

Impacts from the first phase of construction have already occurred and would not contribute to construction-related cumulative impacts in combination with the RWMP project. There would be no long-term cumulative aesthetic impacts because the additional tanks to be constructed for

the Sky Blue project would not be in the same field of view as the reservoir tanks that will be constructed for the RWMP. Additionally, while the location for the RWMP tanks is conceptual, rural areas on the outskirts of the City of Santa Clarita would provide more candidate sites than developed urban areas due to the amount of undeveloped and un-entitled land required to construct a reservoir tank that can accommodate 3.0 MG to 3.5 MG. Noise impacts would be cumulatively less than significant because construction activities would be located sufficiently far apart that the noise impacts of construction would not be additive. Similarly, the less than significant impacts to air quality from the implementation of the Sky Blue Tank Additions would not result in cumulatively considerable air quality impacts with the RWMP because construction activities will be short-term and localized. Other long-term direct impacts from implementation of the RWMP to biological resources, cultural resources, geology and soils, hazardous materials, and land use would not be cumulatively considerable because they would be fully mitigated to a less than-significant-level.

Groundwater Containment, Treatment, and Restoration Project

Project Description

The purpose of this project is to prevent perchlorate originating at the Whitaker-Bermite facility from further contaminating groundwater basins in the Santa Clarita Valley. The project would intercept the existing plume of perchlorate in the Saugus Formation groundwater and pump the contaminated water from intercepting wells to a new treatment plant where perchlorate would be removed and the treated water utilized as part of CLWA's drinking water supply. The project would involve: (a) modification of existing production wells; (b) construction and operation of new monitoring and production wells; (c) modification of existing pipelines and construction of new pipelines (with the exception of two pipeline segments under bridge decks where pipelines would be buried); (d) construction of a new, modular perchlorate water treatment plant; and (e) closure of existing wells. The construction for this project is scheduled to begin in November of 2006.

Project's Environmental Analysis Status and Anticipated Impacts

An MND was prepared for the project and was adopted in September of 2005 (CLWA 2005a). Mitigation measures are included in the project which would reduce impacts to less than significant to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, and utilities and service systems. Impacts to recreation (related to impacts to bike trails) were identified as less than significant. Impacts to transportation and traffic, biological resources, and noise would also be mitigated to less than significant with the incorporation of additional mitigation measures.

Cumulative Impacts with the Project

Construction of the RWMP would not be initiated for several years after the completion of the groundwater treatment project. Therefore, there would be no cumulative construction-related impacts, including air quality and noise. Long-term direct impacts from implementation of the RWMP to other environmental factors would not be cumulatively considerable because impacts associated with both the RWMP and the groundwater containment project would be fully mitigated to a less-than-significant level.

Rio Vista Water Treatment Plant Expansion

Project Description

The Rio Vista Water Treatment Plant (RVWTP) project includes the expansion of the capacity of the existing water treatment plant from 30 million gallons per day (mgd) to 60 mgd (including a new clarifier-filter structure), modifications to the Intake Pump Station to increase the capacity to 60 mgd, and ozone improvements at the treatment plant. The project also includes a new underground pipeline connection to Metropolitan Water District's Foothill Feeder and an associated subsurface meter structure at a site located adjacent to the Santa Clara River. No new water supply is associated with the plant expansion. The proposed plant expansion would expand CLWA's existing raw water delivery capacity, would increase the existing water treatment capacity, and would utilize water that is part of the CLWA's existing supply.

Project's Environmental Analysis Status and Anticipated Impacts

The EIR identified construction noise as an impact that would temporarily increase and could result in exceedances of local noise standards. This would be a significant and unavoidable impact of the proposed project. The EIR identified several potentially significant direct impacts that are mitigable to less than significant. Project construction could temporarily impair the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. However, these impacts would be mitigated to less than significant.

The expansion of the RVWTP would result in potentially significant but mitigable impacts in the increase in hazards to the public or to the environment through the increased routine transport and use of hazardous materials, and the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The project would also have a significant but mitigable impact to transportation and traffic. The proposed project would have potentially significant indirect, growth-related impacts to all resource areas. The cumulative impacts of the project include significant but mitigable direct impacts to hazards and transportation and traffic, and significant and unavoidable direct cumulative impacts to noise. Significant growth-related cumulative impacts to all resources and significant and unavoidable impacts to aesthetics, air quality, biological resources, transportation and traffic and utilities and service systems would also occur.

Cumulative Impacts with the Project

Long-term direct impacts from implementation of the RWMP (to aesthetics, biological resources, cultural resources, geology and soils, hazardous materials, and land use) would not be cumulatively considerable because they would be fully mitigated to a less-than-significant level. The RWMP would have short-term but unavoidable significant impacts related to air quality and noise from construction. However, the RWMP air quality and noise impacts would be short-term, intermittent, and localized and would therefore not substantially contribute to impacts generated by the RVWTP Expansion. Additionally, construction activities for the two projects will not be in close proximity to each other, further minimizing the cumulative impacts. In the event that an RWMP component was being constructed at the same time and in the immediate vicinity of the RVWTP Expansion, the limited, short-term emissions and noise generated from the RWMP component would not substantially add to those of the RVWTP Expansion due to the small size of the RWMP construction activities and the limited construction required for the RVWTP Expansion outside of the plant site. Therefore, impacts would not be cumulatively considerable.

Valencia WRP Expansion

Project Description

The Valencia WRP was completed in 1967. The existing capacity is 21.6 mgd following 3 subsequent expansions: (1) construction of a 4.4 MG flow equalization tank in February 1995; (2) the Stage 4 expansion completed in June 1996; (3) and the Santa Clarita Valley Joint Sewerage System (SCVJSS) Phase I expansion of 9 mgd in 2002. To accommodate anticipated growth in the Santa Clarita Valley area and to ensure compliance with discharge requirements form the Regional Water Quality Control Board (RWQCB), the Los Angeles County Sanitation Districts (LACSD) have begun an expansion of the Valencia WRP as part of the 2015 Joint Sewerage System Facilities Plan. The Phase II expansion is expected to be completed in 2020 and involves an increase of 6 mgd. The ultimate capacity of the WRP is planned to be 27.6 mgd. No expansion of the Saugus WRP is planned; thus the total capacity for both WRPs is 34.1 mgd (38,200 af/yr).

Project's Environmental Analysis Status and Anticipated Impacts

The Sanitation Districts of Los Angeles County certified the Final EIR for the 2015 Plan, approved the project, and filed the Notice of Determination in February of 1998. The SCVJSS Facilities Plan EIR determined that the Valencia WRP Expansion would result in significant but mitigable impacts to aesthetics, biological resources, geology and soils, and water quality. Significant unavoidable impacts related to air quality would result during construction. The remaining impacts were less than significant. The SCVJSS Facilities Plan was designed to accommodate projected population growth through 2015. However, the project is considered growth-inducing under CEQA because it would remove an obstacle to growth. The SCVJSS Facilities Plan EIR identified growth-related impacts and mitigation measures for aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, hydrology, land use, noise, public health, public services, water quality, and transportation. The identified mitigation measures were derived from documents that evaluate regional or areawide growth-related impacts and address their effects (such as the County of Los Angeles General Plan, the SCAG Regional Comprehensive Plan and Guide, and the South Coast Air Quality Management District Air Quality Management Plan, among others).

Cumulative Impacts with the Project

The first of the 2 incremental expansions of the Valencia WRP was completed in 2002; therefore, the intensity of identified impacts for the 2015 Plan as a whole would be less for the remaining component to be implemented in 2020, the 6 mgd expansion. The RWMP would also have short-term but unavoidable significant impacts related to air quality and noise from construction. The air quality impacts would not be cumulatively considerable because the majority of the RWMP components are located east of Interstate 5 and are geographically removed from the Valencia WRP. Additionally, the likelihood that the construction of several RWMP components would be constructed in the vicinity of, and at the same time as, the Valencia WRP expansion is remote. Noise impacts would be cumulatively less than significant because construction activities would be located sufficiently far apart that the noise impacts of construction would not be additive. All other impacts would not be cumulatively considerable because they are temporary and less than significant with mitigation.

Newhall Ranch WRP

Project Description

A WRP is planned as part of the Newhall Ranch Specific Plan to treat the wastewater generated by the development. The WRP would be placed in one of the Business Parks, proposed near the western edge of the Specific Plan area, along the south side of State Route 126 (SR-126). It would likely be built in stages, as the Specific Plan is developed, and would ultimately be sized to treat up to 7.7 mgd. The WRP would be designed and operated to provide a tertiary level of treatment and would be a "near zero-discharge" system that reclaims all treated wastewater for reuse within the Specific Plan area for irrigation purposes except for potentially wet winters when irrigation demands would be lower and some discharge of unused reclaimed water to the Santa Clara River would occur. A new sanitation district is proposed because the Specific Plan area is located in unincorporated territory within the County of Los Angeles and is downstream from the nearest existing County Sanitation District (No. 32). The new County sanitation district would enter into a joint powers agreement with the other existing County sanitation districts to enable it to utilize the currently available staff.

Project's Environmental Analysis Status and Anticipated Impacts

The Newhall Ranch Specific Plan EIR was completed in March 1999. Significant WRP impacts that can be mitigated include geotechnical and soils, flood, environmental safety (storage of hazardous chemicals), biota, traffic and access, construction noise, air quality (odor), and wastewater disposal. Significant impacts that cannot be mitigated include agricultural resources, air quality (construction), visual qualities, and solid waste.

The WRP is sized to serve only the buildout of the Newhall Ranch Specific Plan and no capacity would be available to reclaim wastewater generated by other sources. Nevertheless, the newly formed sanitation district's tributary area would extend beyond the boundaries of the Specific Plan area. The new district would be the most likely district to treat wastewater generated by land uses that are in its tributary area. Therefore, the WRP would remove an impediment to growth and would be considered to have growth-inducing impacts.

Cumulative Impacts with the Project

The RWMP project would have significant but mitigable impacts to aesthetics (visual resources), agricultural resources, biological resources, cultural resources, geotechnical resources, noise, and transportation and traffic. Because these impacts would be fully mitigated, these impacts would not be cumulatively significant in combination with the Newhall WRP project.

The RWMP would have short-term but unavoidable significant impacts related to air quality and noise from construction. However, these would not be cumulatively significant for several reasons. The RWMP air quality impacts would be short-term, intermittent, and localized. The RWMP analysis assumed the worst-case scenario to air quality of constructing all the RWMP components together. In reality, however, the RWMP components would be built out gradually over a 25-year period. In the event that an RWMP component was being constructed at the same time and in the immediate vicinity of the Newhall WRP, the limited, short-term emissions from the RWMP component are not expected to be cumulatively considerable. Noise impacts would be cumulatively less than significant because construction activities would be located sufficiently far apart that the noise impacts of construction would not be additive. Therefore, there would be no significant cumulative impacts related to the Newhall WRP project.

6.3.2 METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA (MWD) MAINTENANCE PROJECTS

The MWD will be completing a number of maintenance projects along the Foothill Feeder, which generally run north-to-south across the valley. The location of these MWD maintenance projects are generally not located near the RWMP components. Further, with the exception of air quality, all direct impacts from the proposed project would be reduced to less than significant with mitigation. The proposed project would result in short-term air quality impacts. However, due to the geographic distance and relative timing of these projects, cumulatively considerable air quality impacts would not result. Therefore, there would be no significant cumulative impacts.

6.3.3 CUMULATIVE IMPACTS BY RESOURCE FOR THE RWMP COMPONENTS

To determine potential cumulative impacts by resource, the direct and indirect impacts from the RWMP project were considered in combination with the impacts related to the anticipated population growth in the CLWA service area over the next approximately 25 years.

2005 UWMP/OVOV Growth Projections

Project Description

This analysis is using a projections approach to determine how much housing is presently available, how much is planned, and what the direct impacts of that housing currently are and will be in the future. *One Valley One Vision* (OVOV) was a joint planning effort by the City of Santa Clarita and the Los Angeles County Department of Regional Planning. Based on SCAG 2004 Regional Transportation Plan (RTP) projections, an adjusted projection of the Santa Clarita Valley's population and employment statistics through 2030 was developed. Table 6.3-1 details the population and employment forecasts for the Santa Clarita Valley through 2030, as presented in the 2005 CLWA Urban Water Management Plant (UWMP).

TABLE 6.3-1
ADJUSTED SANTA CLARITA VALLEYWIDE GENERAL PLAN

SCV Planning Area	2000	2005	2010	2015	2020	2025	2030
Population	212,611	249,343	301,774	336,130	368,691	399,387	428,209
Households	68,760	76,259	90,945	102,441	114,037	125,809	137,436
Employment	62,170	73,540	87,650	94,430	105,470	114,540	123,430
Jobs/Housing Ratio	0.90	0.96	0.96	0.94	0.92	0.91	0.90
Persons/Household	3.09	3.27	3.32	3.28	3.23	3.17	3.12
Source: CLWA 2005c.							

Anticipated Impacts of Projected Growth

Future development projects in the Santa Clarita Valley planning area would impact a broad spectrum of environmental resources. As a result of the land use approval process, including the project-specific CEQA analyses, many of these impacts would be reduced to less than significant or no impact through the application of mitigation measures. However, in some instances, community needs and other factors would override the concerns for environmental resources and impacts to these resources. Therefore, significant and unmitigatable direct and/or cumulative impacts to the following resources are likely to result from the development

anticipated in the water demand figures in the 2005 UWMP: aesthetics, air quality, biological resources, transportation and traffic, and utilities and service systems.

Cumulative Impacts with Population and Housing Development in CLWA Service Area

Aesthetics

The reservoir tanks would be the only RWMP component that would have the potential for a long-term significant impact to visual resources prior to mitigation, as discussed in Section 3.1. Although the locations of the reservoir tanks are currently conceptual, it is anticipated that they would be located in more suburban areas due to a greater availability of potential development sites in those areas that could use recycled water. Landform grading, non-reflective camouflaging paint, and revegetation would reduce direct impacts to a less-than-significant level.

Where a related project would be constructed in close proximity to the location of a reservoir tank, the potential exists for cumulative aesthetic impacts. However, the incremental contribution of the presence of a reservoir tank in the viewshed of an existing or proposed related project would not be cumulatively considerable for several reasons. First, the reservoir tanks would be located throughout the CLWA service area. Therefore, the view from any nearby project developments would typically include no more than one tank. The reservoir tanks would only be one prominent feature among others (adjacent ridgelines, new homes etc.) to those land uses directly adjacent to the structure. Second, the tanks would be approximately two stories high (i.e., approximately 20–30 feet) and would not be large enough to cumulatively influence the aesthetic character of an area. Third, the RWMP would not introduce permanent new sources of light and glare. In summary, the geographic dispersion of the tanks and relatively small size of the structures relative to adjacent natural and developed features would ensure that aesthetic impacts would not be cumulatively considerable.

Agriculture

The RWMP would have a potentially adverse, but less-than-significant direct impact to farmland. One of the proposed reservoir tanks is conceptually located within an area designated as Prime Farmland and the ultimate location of the tank is subject to change; therefore, these facilities could be relocated to avoid impacts to farmland if necessary. If the reservoir tank were to be constructed within Prime Farmland, construction of a reservoir tank would generally impact between one-half and one acre of land. Impacts to this small amount of acreage would not result in a significant direct or cumulative impact because any incremental impact to farmland from the proposed project would be very small in geographic area.

Additionally, because the exact locations of the aquifer storage and recovery (ASR) facilities (wellheads) and additional booster pump station(s) are not known, there is the potential for adverse impacts to farmlands; however, these impacts would also be less than significant due to the small amount of acreage subject to development and would not be cumulatively considerable.

Air Quality

The analysis of air quality impacts, as discussed in Section 3.3, includes a discussion of cumulatively considerable impacts. Because the South Coast Air Basin (SCAB) is a non-attainment area for O_3 and PM_{10} for State and Federal standards and is in non-attainment for $PM_{2.5}$ for Federal standards, any additional emissions of ROG and NO_x (precursors to O_3), CO, and PM_{10} would be considered significant and unavoidable cumulative impacts. However, SCAQMD standards would be implemented for the construction of the RWMP components as

well as related projects. The RWMP would be consistent with SCAQMD standards for operational conditions, and the project is not a trip-generating project such as a residential or commercial development (i.e., would not conflict with the Regional Transportation Plan).

Although the implementation of the RWMP would result in significant unavoidable impacts for short-term construction activities, long-term operational impacts would not be cumulatively considerable for several reasons. The RWMP analysis assumed the worst-case scenario of constructing all RWMP components together. In reality, however, the RWMP components would be built out gradually over a 25-year period. In the event that an RWMP component was being constructed at the same time and in the immediate vicinity of a related project, the limited, short-term emissions from the RWMP component would not be cumulatively considerable because the air quality impacts would short-term, intermittent, and localized. Long-term air quality impacts would not be cumulatively considerable because the project's operational emissions would be minimal.

Biological Resources

Because the locations of the RWMP components are largely conceptual, quantifying impacts to biological resources is not feasible. Therefore, the mitigation program provides for the protection of potential biological resources that are present throughout the CLWA service area, including sensitive plant and wildlife species, protected trees, nesting raptors and migratory birds, and jurisdictional waters. Upon finalization of plans and specifications for the location of RWMP components and prior to the initiation of grading, all necessary biological surveys, documentation, and mitigation for direct impacts would be completed. Therefore, the proposed project would not result in significant direct impacts to biological resources.

Related projects in the CLWA service area would have the potential to affect various biological resources. All related projects would be required to mitigate for biological impacts and would be subject to the same federal and state laws and regulations governing the protection of sensitive biological resources that would apply to the RWMP. However, all impacts may not be reduced to less than significant depending on the magnitude and specific location of development. Nevertheless, because the proposed project would avoid or minimize construction impacts through the mitigation measures discussed in Section 3.4 and because there would be no operational impacts to biological resources, the incremental contribution of the proposed project on biological resources would not be cumulatively considerable.

Cultural Resources

The majority of earth-disturbing activity related to project implementation would occur within previously developed areas (e.g. pipelines beneath existing roadways). Because the locations of the RWMP components are largely conceptual, determining specific impacts to areas where cultural resources may be present is not feasible. Pursuant to the mitigation measures listed in Section 3.5, prior to implementation of any RWMP component that involves ground disturbance, the CLWA will arrange for the completion of a Phase I Cultural Resources Assessment by a qualified Cultural Resources Professional. Potential cultural resource impacts identified by the Phase I assessment would be mitigated as specified in each Phase I report.

Development of related projects in the CLWA service area would have the potential to significantly impact cultural resources. However, because construction of the proposed project would result in less-than-significant impacts to cultural resources with implementation of the mitigation program and because potential impacts would not occur during project operations, the proposed project would not have a cumulatively considerable impact on cultural resources.

Geology and Soils

Because the locations of the RWMP components are largely conceptual, determining the specific impacts to geology and soils is not feasible. Geologic and seismic impacts would be determined by a Geotechnical Engineer, and all recommendations would be incorporated into the final plans and specifications, as discussed in the mitigation measures in Section 3.6. The proposed project would not include habitable structures, nor would the proposed project create or exacerbate any geologic or seismic conditions.

Generally, geotechnical issues are site-specific and are usually limited to areas within the development boundaries of the project site. Additionally, any incremental contribution of the proposed project to soils and geological impacts is not considered cumulatively considerable because: (1) development of the RWMP is consistent with the goals and policies of the applicable General Plans; (2) the proposed project would comply with the applicable requirements of the Uniform Building Code; and (3) the mitigation requirements identified in Section 3.6 would be implemented. These requirements would avoid any cumulative geotechnical impacts that may occur from implementation of the RWMP.

Hazards and Hazardous Materials

The proposed project would not result in significant impacts related to hazards or hazardous materials with implementation of the mitigation measures stated in Section 3.7. Proposed project operations would require the periodic delivery of small amounts of liquid chlorine for disinfection and would not require the use of any additional hazardous materials. The CLWA will comply with all applicable federal and state regulations pertaining to the handling, use, and disposal of hazardous substances as well as all applicable mandates that require the development and implementation of hazardous material-related plans. The majority of related projects considered in this analysis would not involve the routine transport or use of hazardous materials. Although those related projects with industrial land uses may require the handling of hazardous materials, these projects would be required to comply with the same federal and state regulations as the proposed project. Therefore, the proposed project would not result in cumulatively considerable impacts related to hazards or the handling of hazardous materials.

Hydrology and Water Quality

The proposed project would not result in significant direct impacts to hydrology and water quality with implementation of the mitigation measures stated in Section 3.8. Temporary construction-related water quality impacts would be reduced through compliance with the National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit for Storm Water Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ) or the NPDES General Permit for Storm Water Discharges Associated with Construction Activity from Small Linear Underground Projects (Water Quality Order 2003-0007-DWQ). Related projects would also be required to obtain coverage under these permits for construction activities or would be required to obtain coverage under an individual permit, which would specify more stringent requirements. However, all impacts may not be reduced to less than significant depending on the magnitude and specific location of development. Nevertheless, because compliance with the NPDES permits for construction activities, which are short-term and temporary in nature, would ensure that cumulative water quality impacts from project-related construction activities would not be cumulatively considerable.

The operation of the RWMP system would be subject to several federal and state regulations and other mitigations including: (1) ASR facilities compliance with all applicable state and federal groundwater recharge regulations (including the future Title 22 "Groundwater Recharge Reuse" regulations should they be adopted, which are in draft form and currently proposed by

the California Department of Health Services); (2) recycled water's compliance with Title 22 requirements for the disinfection of tertiary recycled water prior to delivery to customers; (3) conclusion of the findings of the required geotechnical investigation and/or water quality analysis that the injection of recycled water into the ASR would not have the potential to impact the water quality of the potable water supplies of the Saugus Formation or the Alluvial Aquifer, or other groundwater supplies designated as a potential source of domestic water supply; and; (4) a technical analysis of any aboveground recycled water lagoon/pond/lake facility for potential impacts on groundwater quality which considers the existing groundwater and soil characteristics in the project area and recommends mitigation measures to reduce potential groundwater impacts to less than significant.

Related projects would also be subject to federal and state water quality regulations and would need to mitigate for their own water quality impacts. Cumulative water quality impacts may still result from the development in the Santa Clarita Valley area; however, compliance with all federal and state requirements for water quality by the proposed project and the related projects would ensure that impacts to water quality would not be cumulatively considerable.

The RWMP facilities must comply with the applicable Uniform Building Code requirements (or local codes and conditions if they are more stringent), American Water Works Association and American National Standards Institute specifications, and/or Soil Engineer recommendations to ensure that reservoir tank construction would be designed to withstand potential seismic activity and to minimize potential hydrology/flooding impacts. The proposed project would not connect to any existing storm drain system; therefore, the proposed project would not contribute to cumulative impacts on the capacities of downstream storm drain facilities to accommodate storm flows. Development or related projects would be required to comply with the County Flood Control standards and requirements; therefore, impacts to hydrology would not be cumulatively considerable.

Land Use and Planning

The proposed project would not result in significant impacts to land use and planning. Development of the RWMP would not divide established communities or conflict with plans, policies, or regulations and would not contribute to any impacts from other projects that might have land use and planning impacts. Therefore, the proposed project would not incrementally contribute to cumulative impacts to land use and planning.

Mineral Resources

The proposed project would have less-than-significant impacts on mineral resources. The RWMP would not develop facilities that would prohibit the development or exploration of mineral resources in the Santa Clarita Valley area. The ASR would not significantly impact mining or oil exploration due to groundwater injections, and impacts would not be cumulatively considerable.

Noise

Construction activities would be the primary source of noise generated by implementation of the proposed project. Construction noise impacts would be temporary, and would cease upon completion of construction; however, even with the incorporation of the mitigation measures discussed in Section 3.11, these temporary impacts cannot necessarily be mitigated to less than significant.

Although the implementation of the RWMP would result in significant unavoidable impacts for short-term construction activities, long-term operational impacts would not be cumulatively considerable. In the event that an RWMP component was being constructed at the same time

and in the immediate vicinity of a related project, the limited, short-term noise from the RWMP component would not be cumulatively considerable because the impacts would be short-term, intermittent, and localized. Because noise impacts would be either temporary (for construction) or eliminated by project design (for operations), the proposed project would not result in cumulatively considerable noise impacts.

Population and Housing

The proposed project would have no impacts on population and housing. Therefore, it would not incrementally contribute to cumulative impacts to population and housing.

Public Services

The proposed project would have no impacts on public services. Therefore, it would not incrementally contribute to cumulative impacts to public services.

Recreation

The proposed project would have no impacts on recreational facilities. Therefore, it would not incrementally contribute to cumulative impacts to recreational facilities.

Transportation and Traffic

The RWMP distribution pipelines would be located in roadway rights-of-way. Therefore, construction would require the temporary diversion of traffic. Construction-related traffic impacts would be minimized through the implementation of the mitigation measures outlined in Section 3.15. If related projects would be constructed in the vicinity of any RWMP construction activities, then cumulative construction-related traffic impacts could result. However, these impacts would not be cumulatively considerable because construction-related impacts would be temporary and all construction-related traffic impacts from the related projects would require mitigation similar to those in the RWMP.

Long-term operational impacts of the RWMP would be related to maintenance vehicles periodically accessing the various RWMP components. The proposed project is not considered to be "trip generating" because traffic generated by maintenance activities would be negligible and widely distributed throughout the CLWA service area. Therefore, the RWMP would not result in cumulatively considerable traffic impacts.

Utilities and Service Systems

The proposed project would not result in significant direct impacts to utilities and service systems. Construction of the proposed project would generate some construction-related solid waste; however, the disposal of all construction debris from the implementation of the RWMP would comply with all applicable County of Los Angeles and City of Santa Clarita codes and ordinances. Operation of the proposed project would not generate solid waste nor would it have significant impacts on any utilities. Related projects in the CLWA service area would generate solid waste during construction and operation. Because RWMP construction-related impacts to solid waste would be temporary and would comply with applicable agency requirements, the proposed project would not result in cumulatively considerable impacts.

6.3.4 CUMULATIVE IMPACTS FOR THE NORTHWEST SPUR PIPELINE

The analysis of cumulative impacts for the Northwest Spur Pipeline is based on the impacts of the project combined with other developments in the project vicinity. The cumulative projects under consideration are discussed below.

Newhall Ranch Specific Plan and Water Reclamation Plant

Project Description

The project would include residential, commercial, and mixed-use development containing a total of 21,308 dwelling units, 5,549,000 square feet of commercial/mixed use development, and a 7.7 mgd water reclamation plant. The project site is located wholly within the CLWA service area, just east of Ventura County on the northern slopes of the Santa Susana Mountains, west of Valencia and one-eighth of a mile from the Six Flags Magic Mountain theme park. The project's potable water would be supplied, in part, by using the applicant's historical Alluvial Aquifer groundwater, which is currently committed to agricultural uses. The project applicant also has secured a potable water supply through a contract with Nickel Family, LLC (the source of this water is the Kern River and is secured through pre-1914 water rights). This contract has secured the applicant's rights to 1,607 af of water per year from this source.

In addition, the applicant has entered into an agreement to reserve and purchase water storage capacity of up to 55,000 af in Semitropic Water Storage District's existing groundwater banking project. Any water stored in this account in Semitropic's existing banking project could be extracted in dry years in amounts of up to 4,950 af/yr. This supply would be used as a source for the Specific Plan in dry years only. The applicant's non-potable water for the project would be supplied, in part, by wastewater reclamation from the Water Reclamation Plant, which is to be constructed as part of the Newhall Ranch Specific Plan. In addition, the CLWA would serve the project with reclaimed water from existing upstream Water Reclamation Plants, consistent with the RWMP. These two sources would supply all the project's non-potable water needs.

Project's Environmental Analysis and Anticipated Impacts

The Newhall Ranch Final EIR, as revised, identified significant but mitigable impacts to the following environmental resource areas: geology and soils (impacts associated with grading activities); environmental safety (oil and natural gas-related impacts); biological resources (impacts to the San Fernando Valley spineflower); traffic and access (increase in the amount of average daily traffic trips); noise (vehicular noise); water resources and wastewater disposal (water supply and water quality of wastewater entering the Santa Clara River); natural gas and electricity demand; education (impacts on school facilities); public services and fire hazards (impacts relating to fire and police services); libraries (demands for library materials and services); and parks, recreation, and trails (impacts to County parks and trails).

Unavoidable significant impacts were identified for the following resource areas: agricultural resources (loss of Prime Farmland); visual (conversion of land from rural to suburban); air quality (vehicular, construction, and operational emissions); and solid waste disposal (landfill capacity for solid and hazardous waste). Less-than-significant impacts were identified for the following resource areas: cultural and paleontological resources (potential impacts to undiscovered buried resources from grading activities); environmental safety (placement of development within a dam inundation area, hazards associated with electrical transmission lines and natural gas lines, transportation of hazardous waste along SR-126, and the proximity of the project to the Chiquita Canyon Landfill); biological resources (impacts to the use of Salt Canyon as a wildlife corridor, and impacts to species within an SEA); and population, housing, and employment.

The Specific Plan would remove impediments to growth through improving and/or extending roadways and the general construction of new infrastructure. Therefore, the Newhall Ranch Specific Plan would be considered growth-inducing.

Cumulative Impacts with the Project

All direct impacts associated with Northwest Spur Pipeline construction would be temporary, construction-related, short-term, and mitigated to a less-than-significant level. The pipeline would have no long-term operational impacts. Construction activities for the Northwest Spur Pipeline and portions of the Newhall Ranch Specific Plan buildout may coincide, thereby possibly creating cumulative construction-related impacts. However, construction-related impacts associated with the Northwest Spur Pipeline would not be substantial and would be localized. Therefore, impacts associated with the construction and operation of the Northwest Spur Pipeline would not be cumulatively considerable with the Newhall Ranch Specific Plan.

All long-term operational impacts associated with the booster pump stations would be less than significant with incorporation of the mitigation program. The booster pump stations would be located on small sites (approximately 1,000 square feet) that would be adjacent to compatible land uses (commercial development or roadways). The pumps would not generate large amounts of pollutants or traffic (other than from occasional maintenance-related traffic). Therefore, the booster pump stations would not contribute to cumulatively considerable impacts when analyzed with the Newhall Ranch Specific Plan.

Legacy Village Project

Project Description

A Vesting Tentative Tract Map (VTTM 061996) was filed with the County of Los Angeles in July 2005. The submittal included a total of 3,467 units, 840,200 square feet of commercial use, and a 20-acre sports park with several smaller recreation areas located within the development. The location is 0.5 mile west of Interstate 5 (I–5) and 1.25 miles south of SR-126, southwest of the Six Flags Magic Mountain theme park in Stevenson Ranch. The land is outside the CLWA service area and an annexation to the service area would be required before the CLWA could provide water to the site.

Project's Environmental Analysis Status and Anticipated Impacts

It is anticipated that an EIR for the Legacy Village Project will be released in 2006. Impacts to the following environmental resources may occur: aesthetics, air quality, biological resources, cultural resources, geology and soils, noise, traffic and transportation, public services, public utilities, population and housing, recreation, and water quality/water resources.

Cumulative Impacts with the Project

All direct impacts associated with Northwest Spur Pipeline construction would be temporary, construction-related, short-term, and mitigated to a less-than-significant level. The pipeline would have no long-term operational impacts. Construction activities for the Northwest Spur Pipeline and the Legacy Village Project may coincide, thereby possibly creating cumulative construction-related impacts. However, construction-related impacts associated with the Northwest Spur Pipeline would not be substantial and would be localized. Therefore, impacts associated with the construction and operation of the Northwest Spur Pipeline would not be cumulatively considerable with the Legacy Village Project.

All long-term operational impacts associated with the booster pump stations would be less than significant with incorporation of the mitigation program. The booster pump stations are located on small sites (approximately 1,000 square feet) that would be adjacent to compatible land uses (commercial development and roadway). The pumps would not generate large amounts of pollutants or traffic (other than from occasional maintenance-related traffic). Therefore, the booster pump station would not contribute to cumulatively considerable impacts with the Legacy Village Project.

Pitchess Pipeline (aka Lateral Extension)

Project Description

See Section 6.3.1

Project's Environmental Analysis Status and Anticipated Impacts

See Section 6.3.1

Cumulative Impacts with the Project

All direct impacts associated with Northwest Spur Pipeline construction would be temporary, construction-related, short-term, and mitigated to a less-than-significant level. The pipeline would have no long-term operational impacts. Construction activities for the Northwest Spur Pipeline and portions of the Pitchess Pipeline buildout may coincide, thereby possibly creating cumulative construction-related impacts. However, construction-related impacts associated with the Northwest Spur Pipeline would not be substantial and would be localized. Therefore, impacts associated with the construction and operation of the Northwest Spur Pipeline would not be cumulatively considerable with the Pitchess Pipeline project.

All long-term operational impacts associated with the booster pump station would be less than significant with incorporation of the mitigation program. The booster pump stations are located on small sites (approximately 1,000 square feet) that would be adjacent to compatible land uses (commercial development and roadways). The pumps would not generate large amounts of pollutants or traffic (other than from occasional maintenance-related traffic). Therefore, the booster pump station would not contribute to cumulatively considerable impacts with the Pitchess Pipeline.

Valencia WRP Expansion

Project Description

See Section 6.3.2.

Project's Environmental Analysis Status and Anticipated Impacts

See Section 6.3.2.

Cumulative Impacts with the Project

All direct impacts associated with Northwest Spur Pipeline construction would be temporary, construction-related, short-term, and mitigated to a less-than-significant level. The pipeline would have no long-term operational impacts. Construction activities for the Northwest Spur Pipeline and the Valencia WRP would not coincide. Therefore, impacts associated with the construction and operation of the Northwest Spur Pipeline would not be cumulatively considerable with the Valencia WRP expansion.

All long-term operational impacts associated with the booster pump stations would be less than significant with incorporation of the mitigation program. The booster pump stations would be located on small sites (approximately 1,000 square feet) that would be adjacent to compatible land uses (commercial development and roadway). The pump would not generate large amounts of pollutants or traffic (other than from occasional maintenance-related traffic). Therefore, the booster pump stations would not contribute to cumulatively considerable impacts with the Valencia WRP expansion.

Cross Valley Connector Project

Project Description

The Cross Valley Connector project includes a total of six segments of roadway (either planned under construction) that, along with existing roadway segments, would comprise the Cross Valley Connector. The westernmost portion, the Cross Valley Connector Gap Closure Project, includes the construction of a 1.6-mile extension of Newhall Ranch Road from the existing terminus at Copper Hill Drive/Rye Canyon Road to just east of the I-5/SR 126 interchange to the west.

The City of Santa Clarita has proposed the extensions of Newhall Ranch Road and Golden Valley Road as part of the Cross Valley Connector East project. The Cross Valley Connector East project includes the construction of Newhall Ranch Road east of the proposed terminus provided by Newhall Land and Farming Company and a connection to the proposed Golden Valley Flyover, an elevated roadway crossing Soledad Canyon Road. The City plans to construct the two necessary bridges: one over the Los Angeles Department of Water and Power's aboveground Los Angeles Aqueduct and another over the Santa Clara River. As mentioned above, the extension of Newhall Ranch Road was also analyzed for the Riverpark project and rough grading for this development has begun. The southern and eastern portions of the Cross Valley Connector are currently under construction. Construction of the Cross Valley Connector projects would occur in phases and construction is expected to be ongoing through 2009.

Project's Environmental Analysis Status and Anticipated Impacts

The Final EIR/Environmental Assessment (EA) for the Cross Valley Connector Gap Closure Project was released in April of 2005. Mitigation measures would reduce impacts to wildland fires, traffic and transportation, cultural resources, hydrology and water quality, geology and soils, noise and biological resources, and impacts were considered less than significant. However, certain impacts to traffic and transportation (at buildout) and air quality (during construction) remained significant after mitigation. An NOP was issued in 2003 for the Cross Valley Connector East project; however, the environmental review is not complete. The NOP identified potential impacts to land use, geologic/seismic, water quality, air quality, traffic/circulation, biological resources, fire hazards, noise, public services, and aesthetics.

Cumulative Impacts with the Project

All direct impacts associated with Northwest Spur Pipeline construction would be temporary, construction-related, short-term, and mitigated to a less-than-significant level. The pipeline would have no long-term operational impacts. Construction activities for the Northwest Spur Pipeline and portions of the Cross Valley Connector Project may coincide, thereby possibly creating cumulative construction-related impacts. However, construction-related impacts associated with the Northwest Spur Pipeline would not be substantial and would be localized. Therefore, impacts associated with the construction and operation of the Northwest Spur Pipeline would not be cumulatively considerable with the Cross Valley Connector Project.

All long-term operational impacts associated with the booster pump stations would be less than significant with incorporation of the mitigation program. The booster pump stations would be located on small sites (approximately 1,000 square feet) that would be adjacent to compatible land uses (commercial development and roadway). The pumps would not generate large amounts of pollutants or traffic (other than from occasional maintenance-related traffic). Therefore, the booster pump stations would not contribute to cumulatively considerable impacts with the Cross Valley Connector Project.

6.3.5 CUMULATIVE GROWTH-INDUCING AND GROWTH-RELATED IMPACTS

Section 4.0, Growth-Inducing and Growth-Related Impacts, contains a conclusion that the RWMP's indirect impacts are significant because the proposed project would remove a barrier to growth by making additional potable water, which was previously used for irrigation, available The RWMP would add the supply of recycled water documented as needed in the 2005 UWMP to meet the growth predicted within the service area in local planning documents. The analysis in Section 4.0 assumed this same growth in the service area consistent with local plans and it is this growth that resulted in the conclusion of a significant impact.

Because Section 4.0 assumes that the project would be a component of infrastructure that would allow for the planned buildout of the service area, there would not be any additional impacts than those already documented in Section 4.0. Though the cumulative growth-inducing and growth-related impacts would be significant for the same impact categories as noted in Section 4.0, the cumulative impacts would not be greater and no additional analysis is required. Additionally, those mitigation measures proposed for the significant growth-inducing and growth-related impacts in Section 4.0 would also be applicable to cumulative impacts and, in cases where the mitigation measures reduce the impacts to less than significant, the cumulative growth-inducing and growth-related impacts would also be reduced to less than significant.

6.3.6 CUMULATIVE IMPACT SUMMARY

In summary, the implementation of the RWMP would not result in significant or unavoidable cumulative impacts.

SECTION 7.0 PROPOSED PROJECT ALTERNATIVES

7.1 ALTERNATIVES EVALUATION PROCESS

This section analyzes the potential alternatives to the implementation of the RWMP and the Northwest Spur Pipeline. CEQA Guidelines (Section 15126) require that a Draft EIR describe a reasonable range of feasible alternatives to the project or project location that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any significant environmental impacts of the proposed project. Additionally, the No Project Alternative must be analyzed.

The implementation of the RWMP and the Northwest Spur Pipeline are considered concurrently in this alternatives analysis. Although the Northwest Spur Pipeline is considered at a more detailed level of analysis in this EIR, it is, in fact, a part of the larger RWMP and would not be constructed without approval and adoption of the RWMP. Therefore, the alternatives described below take into consideration the entire RWMP, including the Northwest Spur Pipeline.

The analysis of alternatives follows a specific process. The first step in the process involves identification of potential alternatives that would avoid or substantially lessen any significant impacts identified for the project (CEQA Guidelines, Section 15126.6[b]). The Draft EIR analyzes the direct and indirect impacts of the proposed project. All potential impacts are mitigated to a less–than-significant level, with the exception of construction-related emissions of NO_X, which was determined to be a significant and unavoidable impact. Generally, alternatives that would reduce or avoid some or all significant direct impacts of the project were considered.

The RWMP objectives are as follows:

- To satisfy the legislative mandates, as set forth in the Water Recycling Act of 1991, which encourage the production and use of recycled water through the established statewide goal of recycling a total of 700,000 acre-feet per year (af/yr) of water by the year 2000 and 1,000,000 af/yr by the year 2010.

- To conserve potable water supplies by making recycled water available for various non-potable uses (including irrigation, industrial processes, and recreational enhancement), where feasible and appropriate.

- To develop a cost-effective system for the delivery of recycled water.

- To create a recycled water system that can produce enough water to meet the recycled water demands of its existing and future customers.

- To make recycled water available to as many CLWA customers as economically and geographically feasible.

Alternatives selected for further evaluation were those that would meet most basic objectives of the project and that were considered to be potentially feasible. Those alternatives that were eliminated from consideration were found to either not meet most of the basic project objectives or were determined to be infeasible. Several water management actions listed below were identified, refined, and considered for analysis:

- Increased Groundwater Extractions
- Increased Water Conservation

- No Project Alternative
- Purchase of Additional Potable Water
- Purchase of Desalinated Water
- Reduced Capacity RWMP

7.2 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

7.2.1 INCREASED GROUNDWATER EXTRACTIONS

Under this scenario, in lieu of the implementation of the RWMP, an additional 17,400 af/yr of groundwater would be extracted from the Alluvial Aquifer/Saugus Formation and delivered to users in the CLWA service area. These groundwater extractions would be necessary to replace the recycled water that would have been provided by the proposed project for irrigation and other industrial purposes. The extractions would be accomplished by increased use of existing wells and by the installation of additional wells, pumps, and wellhead treatment facilities. Existing facilities or new distribution facilities, such as pipelines and pumping stations, would be constructed to transport this water to existing and planned treated water distribution facilities.

This amount of groundwater withdrawal would be above what is currently extracted or planned for extraction. Pumping from the Alluvial Aquifer in a given year is governed by local hydrologic conditions in the eastern Santa Clara River watershed. Pumping ranges between 30,000 and 40,000 af/yr during normal and above-normal rainfall years; however, due to operational constraints in the eastern part of the Basin, pumping is reduced to between 30,000 and 35,000 af/yr during dry years (CLWA 2005c).

Pumping from the Saugus Formation in a given year is tied directly to the availability of other water supplies, particularly from the State Water Project (SWP). During average year conditions within the SWP system, Saugus pumping ranges between 7,500 and 15,000 af/yr. Planned dry-year pumping from the Saugus Formation ranges between 15,000 and 24,000 af/yr during a drought year and can increase to between 21,000 and 25,000 af/yr if SWP deliveries are reduced for consecutive years, and between 21,000 and 35,000 af/yr if SWP deliveries are reduced for three consecutive years. Such increased pumping would be followed by periods of reduced pumping at rates between 7,500 and 15,000 af/yr to further enhance the effectiveness of natural recharge processes that would recover water levels and groundwater storage volumes after the higher pumping during dry years (CLWA 2005c).

These amounts are based upon the sustainable yield of the aquifers. This alternative was determined to be infeasible because extractions from the aquifers beyond what is anticipated in the 2005 Urban Water Management Plant (UWMP) and the Groundwater Management Plan would result in groundwater overdrafts and unsustainable yields.

7.2.2 INCREASED WATER CONSERVATION

This alternative would involve implementing an aggressive water conservation program that would conserve an average of 17,400 af/yr in the CLWA service area, which would need to be over and above the conservation levels currently projected in the UWMP (CLWA 2005c). The amount of conservation that would be required under this alternative is not anticipated to be achievable and sustainable, and is therefore considered to be technically infeasible for the reasons explained below.

A number of water conservation measures are already in place in the CLWA service area, and the CLWA has adopted a water conservation goal of further reducing water demand by 7,700 acre-feet (af) in 2010 and 10,600 in 2020, or about 10 percent of demand (CLWA 2005c). The CLWA is a member of the California Urban Water Conservation Council (CUWCC) and has pledged to implement all cost-effective Best Management Practices (BMPs) for water conservation in order to achieve these goals. It is unlikely that the amount of additional conservation that would be required under this alternative (17,400 af/yr) could be implemented in a timely manner, if at all, particularly since such conservation levels have not been demonstrated in the CLWA service area (and other areas of the state) to be sustainable over long periods of time. The 17,400 af/yr required would be an aggregate, which means that total conservation would need to be 10 percent more than 17,400 af/yr or a total of 19,140 af/yr.

7.3 ALTERNATIVES CARRIED FORWARD FOR ANALYSIS

7.3.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Under the No Project Alternative, the RWMP would not be implemented. All water needs within the CLWA service area would have to be met with potable water supplies as they currently are, and the use of recycled water would not be an option. The potable water supply projections set forth in the 2005 UWMP are based on the assumption that 1,700 to 17,400 af/yr of recycled water will be available for use in the CLWA service area. As presented in Chapter 6.0, Reliability Planning, of the 2005 UWMP, existing and planned supplies in the projected average/normal year include 1,700 af/yr by 2010, 3,300 af/yr by 2015, 8,000 af/yr by 2020, 12,700 af/yr by 2025, and 17,400 af/yr by 2030 (CLWA 2005c). Without the implementation of the RWMP, the 2005 UWMP water supply projections would need to be reduced accordingly.

The effects of implementing the No Project Alternative with regard to future land development could vary depending upon the actions of agencies with land use planning and permitting authority. An analysis of projected water supplies and planned/future development (as detailed in Table 6.2-1 in Section 6.0, Cumulative Impacts) would be required in order to determine how much of the locally approved or planned development could be accommodated with current and projected water supplies, without the 17,400 af/yr of recycled water. Without an augment to the projected water supply to replace the recycled water that the RWMP would supply (as presented in the 2005 UWMP), then the No Project Alternative would likely result in a constraint to future development in the CLWA service area. The No Project Alternative would avoid the following direct impacts of the proposed project:

- Aesthetics—Impacts to scenic vistas, scenic resources, trees, glare, and hillside topography.
- Agricultural Resources—Impacts to Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and/or Farmland of Local Importance.
- Air Quality—Construction related air quality impacts.
- Biological Resources—Impacts to biological resources, including special status vegetation types, plants, and wildlife, raptors/nesting birds, and jurisdictional waters of the U.S. or the State.
- Cultural Resources—Impacts to cultural, archaeological, or paleontological resources or un-interred human remains.

- Geology/Soils—Impacts associated with exposing structures to risks involving earthquakes, ground-shaking, liquefaction, expansive soils, or other soil instabilities and potential to result in substantial loss of topsoil.

- Hazards and Hazardous Materials—Impacts associated with construction in high fire hazard zones may increase the risk of wildfire.

- Hydrology and Water Quality—Impacts to water quality standards for disinfection of recycled water, impacts to groundwater quality, and water quality impacts associated with construction activities.

- Land Use—Conflicts with goals and objectives of the Natural River Management Plant (NRMP) or Santa Clara River Enhancement and Management Plant (SCREMP).

- Noise—Impacts due to construction-related noise near sensitive receptors and operational impacts of booster pump stations and back-up generators.

- Transportation/Traffic—Impacts due to roadway hazards from temporary construction activities within roadways that would impact normal traffic flow, construct within Caltrans right-of-way, short-term construction-related impacts to parking.

- Utilities/Service Systems—Impacts to solid waste facilities from construction and demolition debris.

Analysis of Proposed Project Objectives

In response to the State of California's mandate to increase the use of recycled water, objectives of the RWMP are discussed below.

1. To satisfy the legislative mandates, as set forth in the Water Recycling Act of 1991, which encourage the production and use of recycled water through the established statewide goal of recycling a total of 700,000 af/yr of water by the year 2000 and 1,000,000 af/yr by the year 2010.

   This objective would not be met by the No Project Alternative. Under this alternative, recycled water would not be provided and the CLWA would not be implementing the legislative mandates of the Water Recycling Act of 1991.

2. To conserve potable water supplies by making recycled water available for various non-potable uses including irrigation, industrial processes, and recreational enhancement, where feasible and appropriate.

   This objective would not be met by the No Project Alternative. Under this alternative, recycled water would not be available to reduce demands on the potable water supply.

3. To develop a cost-effective system for the delivery of recycled water.

   This objective would not be met by the No Project Alternative. There would be no need to develop a new system for recycled water delivery under this alternative.

4. To create a recycled water system that can produce enough water to meet the recycled water demands of its existing and future customers.

This objective would not be met by the No Project Alternative. The demands for recycled water would not be satisfied under this alternative.

5. To make recycled water available to as many CLWA customers as economically and geographically feasible

   This objective would not be met by the No Project Alternative. Under this alternative, recycled water would not be available for potential customers in the CLWA service area. The No Project Alternative was therefore rejected in favor of the proposed project.

7.3.2 ALTERNATIVE 2: INCREASED POTABLE WATER DELIVERIES

The CLWA is currently planning to implement a Water Acquisition Project (WAP) from the Buena Vista Water Storage District and the Rosedale-Rio Bravo Water Storage District Water Banking and Recovery Program (BVWSD and RRBWSD). The WAP is an action by CLWA to augment its water supply in order to meet water demands of existing users and a portion of future water demand from anticipated growth both within the CLWA service area and on sites that are currently not within the service area. Under the WAP, the CLWA would purchase an annual water supply of 11,000 af/yr.

It is possible that the CLWA could increase the annual water deliveries from the WAP up to 20,000 af/yr, which would provide an additional 9,000 af/yr of potable water to replace the eliminated RWMP recycled water supply of 17,400 af/yr. This additional amount would not be available every year. The WAP is just one of several options for the purchase of potable water, including other opportunities in the Central Valley. If the CLWA were able to obtain an additional 9,000 af/yr from the WAP in a given year, then an additional 8,400 af/yr would need to be obtained from other undetermined sources. In total, 17,400 af/yr of potable water would need to be acquired from all sources.

Purchased water would be provided to the CLWA through SWP facilities. For the purposes of this analysis, it is assumed that potable water deliveries from all sources would utilize SWP facilities. No direct impacts would result from the purchase of additional potable water supplies because no new construction would be required, with the possible exception of minor facility improvements or increased maintenance that may be needed.

Impacts

Growth-inducement and growth-related impacts within the CLWA service area for this alternative would be similar to those described for the implementation of the RWMP. Direct impacts of this alternative are described below and are compared to those of the proposed project.

Aesthetic/Visual Resources — Because this alternative would not require the construction of any facilities, no aesthetic impacts would result from the implementation of this alternative. The transport of additional water through existing facilities for use within the CLWA service area would not impact scenic vistas, damage scenic resources, substantially degrade the existing visual character or quality of the area, or create a new source of substantial light or glare. Therefore, visual impacts under this alternative would be less than under the RWMP.

Agricultural Resources — Because this alternative would not require the construction of any facilities, no agricultural resource impacts would result from the implementation of this alternative. Existing SWP facilities are not located on agricultural lands and would continue to be operated in accordance with existing operating criteria. Therefore, agricultural impacts under this alternative would be less than under the RWMP.

Air Quality — Electricity would be needed to operate the pumps associated with the SWP facilities to transport the water to the CLWA, which would require the burning of fossil fuels from power plant activities. Electric power used by the SWP is obtained from hydroelectric generating plants, the Reid Gardner Power Plant in Nevada, and other power producers in the western U.S., and no additional sources of power supply would be necessary. Any power plant that provides electrical power must comply with all ambient air quality standards and applicable air permit conditions; therefore, these air quality impacts would be less than significant. As a result, air quality impacts under this alternative would be less than under the RWMP.

Biological Resources — Because this alternative would not require the construction of any facilities, no biological resource impacts would result from the implementation of this alternative. The slight increase in water transported through the SWP facilities and stored at Quail, Pyramid, and Castaic lakes would not adversely impact fish or other wildlife. Therefore, impacts to biological resources under this alternative would be less than under the RWMP.

Cultural Resources — Because this alternative would not require the construction of any facilities and would not involve any earthmoving operations, no cultural resource impacts would result from the implementation of this alternative. Therefore, impacts to cultural resources under this alternative would be less than under the RWMP.

Geology, Soils, and Mineral Resources — Because this alternative would not require the construction of any facilities and would not involve any earthmoving operations, no geology, soils or mineral resources impacts would result from the implementation of this alternative. Therefore, impacts to geology, soils, and minerals under this alternative would be less than under the RWMP.

Hazards and Hazardous Materials — The use of up to 17,400 af/yr of additional potable water would result in an increased use of hazardous materials to treat the water. Any additional hazardous materials would be used in accordance with existing policies and regulations to prevent upset or release into the environment and impacts would be less than significant. No construction would occur that could potentially emit hazardous emissions or increase the risk of wildland fires. Therefore, impacts related to hazards and hazardous materials under this alternative would be less than under the RWMP.

Hydrology and Water Quality — Because this alternative would not require the construction of any facilities, no hydrology impacts to the CLWA would result from the implementation of this alternative. However, if additional water supplies were purchased from the Central Valley area of California, the potential for impacts to the hydrology of that region would need to be analyzed. The purchased water would be delivered directly into SWP facilities and would be required to meet the California Department of Water Resources pump-in requirements for water quality and would meet all applicable standards for drinking water. Therefore, impacts to hydrology and water quality under this alternative would be less than under the RWMP.

Land Use and Planning — Because this alternative would not require the construction of any facilities, no land use and planning impacts would result from the implementation of this alternative. The purchase of potable water would not result in a conflict with an applicable land use plan, policy, or regulation nor would it divide an established community. Therefore, land use and planning impacts under this alternative would be less than under the RWMP.

Noise — Because this alternative would not require the construction of any facilities, no noise impacts would result from the implementation of this alternative. Since existing pumps are housed in concrete structures, increased pumping for the additional water would not expose persons to or generate noise levels in excess of established standards or cause a substantial permanent increase in ambient noise. Therefore, noise impacts under this alternative would be less than under the RWMP.

Population and Housing — Because this alternative would not require the construction of any facilities, no population and housing impacts would result from the implementation of this alternative. The purchase of potable water would not directly induce population growth or displace housing or people. Therefore, population and housing impacts under this alternative would be less than under the RWMP.

Public Services — Because this alternative would not require the construction of any facilities, no impacts to public services would result from the implementation of this alternative. No new or altered governmental facilities would be needed. Therefore, visual impacts under this alternative would be less than under the RWMP.

Recreation — Because this alternative would not require the construction of any facilities, no recreational impacts would result from the implementation of this alternative. The increased volume of water stored at Quail, Pyramid, and Castaic lakes would not change as a result of the purchase of potable water and recreational resources would not be affected. Therefore, recreational impacts under this alternative would be less than under the RWMP.

Traffic and Transportation — Because this alternative would not require the construction of any facilities, no traffic and transportation impacts would result from implementation of this alternative. The purchase of potable water would not involve construction or operational changes that could generate traffic or otherwise affect traffic conditions. Therefore, traffic and transportation impacts under this alternative would be less than under the RWMP.

Utilities and Service Systems — Because this alternative would not require the construction of any facilities, no impacts to utilities and service systems would result from the implementation of this alternative. The SWP conveyance facilities were designed to meet the contractual delivery requirements of all contractors, and the use of SWP facilities to transport water would not affect wastewater treatment facilities or require the disposal of solid waste. The purchase of potable water would not require or result in the construction of new or expanded water or wastewater treatment facilities or storm water drainage facilities. Therefore, utilities and service systems impacts under this alternative would be less than under the RWMP.

Analysis of Proposed Project Objectives

In response to the State of California's mandate to increase the use of recycled water, objectives of the RWMP are discussed below.

1. To satisfy the legislative mandates, as set forth in the Water Recycling Act of 1991, which encourage the production and use of recycled water through the established statewide goal of recycling a total of 700,000 af/yr of water by the year 2000 and 1,000,000 af/yr by the year 2010.

   This objective would not be met by Alternative 2. Under this alternative, recycled water would not be produced and the CLWA would not be implementing the legislative mandates of the Water Recycling Act of 1991.

2. To conserve potable water supplies by making recycled water available for various non-potable uses including irrigation, industrial processes, and recreational enhancement, where feasible and appropriate.

   This objective would not be met by Alternative 2. Under this alternative, recycled water would not be produced to reduce demands on the potable water supply.

3. To develop a cost-effective system for the delivery of recycled water.

   This objective would not be met by Alternative 2. There would be no need to develop a new system for water delivery under this alternative.

4. To create a recycled water system that can produce enough water to meet the recycled water demands of its existing and future customers.

   This objective would not be met by Alternative 2. The demands for recycled water would not be satisfied under this alternative.

5. To make recycled water available to as many CLWA customers as economically and geographically feasible

   This objective would not be met by Alternative 2. Under this alternative, recycled water would not be produced or supplied for potential customers.

7.3.3 ALTERNATIVE 3: PURCHASE OF DESALINATED WATER

Under this alternative, the CLWA would contribute a portion of the needed funds to another agency so it can develop and operate a seawater desalination facility along the southern California coast. An average of 17,400 af/yr of desalinated water produced by this facility would be provided to the CLWA to satisfy anticipated water demands, as set forth in the 2005 UWMP. A likely partner in such an arrangement would be The Metropolitan Water District of Southern California (MWD). If both parties agreed, the CLWA would enter into a contract with MWD indicating that CLWA was allowed an annual delivery of 17,400 af/yr of desalinated water.

Depending on the extent of ancillary facilities included at the site, approximately 2 to 5 acres could be required for the facility. In addition to the desalting plant, the coastal facility would likely include new electrical power conveyance and control equipment, ocean water intake and brine disposal structures, and a treated-water pumping plant. Depending on site location, additional pipelines and related pumping facilities may be required to convey the desalinated water a short distance to the existing MWD distribution facilities.

Impacts

Growth-inducement and growth-related impacts within the CLWA service area for this alternative would be similar to those described for the implementation of the RWMP. Direct impacts of this alternative are described below and compared to those of the proposed project.

Aesthetic/Visual Resources — Construction of a desalination facility on several acres of land and associated pipelines would impact aesthetic/visual resources at the selected site. These impacts could be significant but mitigable to less than significant, unless the facilities were located in visually sensitive areas, which are common along the coast. Mitigation measures could include redesigning or screening the desalination facility and restoring the pipeline corridor to minimize visual impacts. The construction of a centralized desalination facility would require several acres of land and would likely be located in proximity to the coastline; therefore, impacts to visual/aesthetic resources from this alternative would be greater than the impacts of the proposed project.

Agricultural Resources — Some agricultural areas are located along the southern California coast. If the desalination facility and pipeline were located on Important Farmland, the impact would be less than significant because a substantial amount of farmland would not be converted to non-agricultural use. This impact would be comparable to impacts from the proposed project.

Air Quality — Section 30253(3) of the Coastal Act requires that new development be consistent with requirements imposed by an air pollution district or the State Air Resources Control Board. In general, the air emissions from a reverse osmosis desalination plant would consist only of discharges of a degasifier. Short-term combustive and fugitive dust emissions would result from construction of the desalination plant and any conveyance pipelines. Depending on the mix of equipment used, construction activities could exceed the relevant air pollution control district's daily significance thresholds, which would be a significant impact. Short-term impacts of this alternative may be mitigable to less than significant by implementing standard operating practices to ensure that fugitive dust (PM_{10}) emissions are minimized (e.g., applying water to areas where vehicles and equipment operate on bare soil and cover inactive soil stockpiles or treat them with soil binders, such as crusting agents or water them to keep moist). However, NOx emissions may not be able to be reduced to a less-than-significant level.

Construction of the RWMP is anticipated to be phased over 25 years. This would distribute the construction emissions over a long time period, thereby reducing the potential for peak day or peak quarter exceedances of the SCAQMD thresholds of significance. However, the timing of the RWMP construction is subject to change; therefore, many components could be constructed within a shorter time frame. Therefore, both the proposed project and this alternative have the potential to result in significant air quality impacts, and air quality impacts would be comparable.

Biological Resources — Marine resources in the vicinity of a desalination plant could be affected by the constituents present in the concentrate discharges, by the concentrate discharge method used, and by the process of feed water intake. Coastal Act Sections 30230 and 30231 provide for the maintenance, enhancement, and restoration of marine resources and biological productivity (California Coastal Commission 2003). All desalination plants use chlorine or other biocides, which are hazardous to marine resources, to clean pipes and other equipment and sometimes to pretreat the feed water. The State Water Resources Control Board (SWRCB) does not permit chlorine or other biocides to be discharged directly to the ocean. Consequently, these chemicals would have to be neutralized before discharge (California Coastal Commission 2003).

Concern over the potential adverse effects to marine resources of desalination plant discharges would be tempered by the following factors: total volume of concentrate being released; the constituents of the concentrate discharge; and the amount of dilution prior to release. The high salt concentration of the concentrate and resulting localized fluctuations in salinity levels may kill organisms near the outfall that cannot tolerate either high salinity levels or fluctuations in the levels. In addition, discharges from desalination plants would be denser than seawater and could sink to the ocean floor, potentially causing adverse impacts to benthic communities. These effects may be considerably reduced if desalination plant concentrate discharges are

combined with sewage treatment plant discharges (which are less dense than seawater) or are diluted by mixing with power plant cooling water discharges. At this time, however, there is considerable uncertainty about how well desalination plant discharges, either alone or combined with other discharges, would be diluted in seawater.

Metals in the concentrate discharge may become concentrated in the upper few micrometers of the ocean (the microlayer), which could be toxic to fish eggs, marine organisms, and larvae that are located there. Impacts to biological resources could be significant but likely could be mitigated to less than significant by measures such as treating water prior to discharge. These impacts would be greater than those of the proposed project, which would not directly impact marine resources. Construction activities could also result in disturbance to sensitive habitat and wildlife species. Impacts would be significant but could be mitigable to less than significant by measures such as modifying construction timing, avoiding construction sites when sensitive species are present, and restoring disturbed habitat. The totality of these impacts would be greater than those of the proposed project.

Cultural Resources — Depending on the location of the facility, construction of the seawater desalination plant and conveyance pipelines could have a significant impact on cultural resources. This impact would be mitigable to less than significant by conducting a survey to identify whether cultural resources are present prior to construction and taking appropriate measures to avoid or reduce impacts. These may include relocating construction sites to avoid the cultural resources or performing testing, evaluation, and data recovery if relocating the sites is not feasible. This impact would be comparable to that of the proposed project.

Geology, Soils, and Mineral Resources — The plant construction would not result in the substantial loss of availability of a known mineral resource. The seawater desalination facility and water conveyance pipelines could be subject to geologic hazards, including seismic hazards, expansive soils, and unstable ground units depending on site locations. Construction could also result in erosion and siltation. These impacts would be mitigable to less than significant through appropriate siting and the implementation of appropriate engineering practices and BMPs. This impact would be comparable to that of the proposed project.

Hazards and Hazardous Materials — The desalination plant would require the use of hazardous materials, such as chlorine, caustic soda (sodium hydroxide), acid, dechlorination chemicals, and carbon dioxide. An accidental release of these chemicals could have adverse effects on plant personnel, the general public, and plant and, possibly, aquatic life depending on the location of the facility. Impacts could be significant but would be mitigable to less than significant through compliance with federal, state, and local laws and regulations. These regulations stipulate minimum standards for design of facilities, storage requirements, spill-prevention procedures, emergency response and contingency plans, risk management, and employee training procedures. The proposed desalination facility would have to adhere to pertinent regulations including the Uniform Building Code, the Uniform Fire Code, and related regulations related to risk management. The desalination plant would require significantly larger quantities and more types of chemicals than the proposed project, thereby creating a higher risk of accidental release. Therefore, impacts would be greater under this alternative.

Hydrology/Water Quality — Construction could result in erosion and short-term water quality impacts to nearby water bodies. This impact could be significant but would be mitigable to less than significant through the implementation of BMPs. Effluent discharge could affect the water quality of coastal areas, but this impact could be mitigated through compliance with permitting conditions imposed by the RWQCB. These impacts would be greater than the proposed project and would be significant, although incorporation of standard mitigation measures would reduce the severity of impacts to less-than-significant levels.

Land Use and Planning — Depending on site location, the desalination facility could result in conflicts with existing land uses or with future development plans. The construction and operation of the facility and associated pipelines could also conflict with relevant adopted plans and policies. Impacts could be mitigated to less than significant through the implementation of measures such as those described elsewhere in this section. This impact would be comparable to that of the proposed project.

Noise — Noise would result from the short-term construction of new facilities and the long-term operation of the plant and pumps. Impacts could be significant if sensitive receptors were located nearby. Construction noise impacts could be mitigated to less than significant through the implementation of measures such as limiting construction to daylight hours on weekdays and using muffled construction equipment. The source of the noise would centralized at the plant facility, whereas the sources of noise for the proposed project would be dispersed throughout the CLWA service area and may be located adjacent to sensitive receptors. Operational noise from the desalination plant would be mitigated by noise-attenuating construction techniques and materials. This impact would be comparable to that of the proposed project.

Population and Housing — Constructing and operating a desalination plant and associated pipelines could be constructed so that they would not displace population and housing nor directly induce population growth. Impacts would be comparable to the proposed project.

Public Services — Constructing and operating a desalination plant and associated pipelines would place minimal demands on fire and police protection and would not affect schools or library services. No new public services facilities would be required as a result of this alternative. Impacts would be negligible and would be comparable to those of the proposed project.

Recreation — Depending on the site selected, coastal recreation and access could be restricted and impacts could be significant. They could be mitigated to less than significant through the implementation of measures such as selecting sites that are not used for recreational purposes and providing public access where appropriate. Impacts would be greater than those of the proposed project.

Transportation and Circulation — Constructing and operating the desalination facility and associated pipelines would result in increased traffic due to the transportation of materials, equipment, and employees to and from the site(s). Existing traffic levels on surrounding freeways and roads leading to the facility would determine the level of impact on transportation, but impacts would likely be less than significant or mitigable to less than significant through scheduling of deliveries, use of flagpersons where needed, and other standard traffic-control measures. Construction of pipelines could result in temporary lane closures or other short-term traffic disruptions, but this would be less significant because standard procedures would have to be followed to allow safe access through the construction area. Impacts would be comparable to the proposed project.

Utilities and Service Systems — Constructing and operating the desalination facility and associated pipelines would generate some materials (e.g., construction materials, filters, and office materials) that would require disposal in a landfill. The significance of the impact would depend upon the amount of materials generated and the availability of disposal space. Electrical power would be needed to operate the desalination plant and water pumps. Impacts would likely be less than significant. This alternative would have greater impacts to electrical power generation than the proposed project; the impacts to solid waste disposal would likely be comparable to those of the proposed project.

Analysis of Proposed Project Objectives

In response to the State of California's mandate to increase the use of recycled water, objectives of the RWMP are discussed below.

1. To satisfy the legislative mandates, as set forth in the Water Recycling Act of 1991, which encourage the production and use of recycled water through the established statewide goal of recycling a total of 700,000 af/yr of water by the year 2000 and 1,000,000 af/yr by the year 2010.

   This objective would not be met by Alternative 3. Under this alternative, recycled water would not be produced and the CLWA would not be implementing the legislative mandates of the Water Recycling Act of 1991.

2. To conserve potable water supplies by making recycled water available for various non-potable uses including irrigation, industrial processes, and recreational enhancement, where feasible and appropriate.

   This objective would not be met by Alternative 3. Under this alternative, recycled water would not be produced to reduce demands on the potable water supply.

3. To develop a cost-effective system for the delivery of recycled water.

   This objective would not be met by Alternative 3. There would be no need to develop a new system for water delivery under this alternative.

4. To create a recycled water system that can produce enough water to meet the recycled water demands of its existing and future customers.

   This objective would not be met by Alternative 3. The demands for recycled water would not be satisfied under this alternative.

5. To make recycled water available to as many CLWA customers as economically and geographically feasible

   This objective would not be met by Alternative 3. Under this alternative, recycled water would not be produced or supplied for potential customers.

7.3.4 ALTERNATIVE 4: REDUCED CAPACITY RWMP

Under this alternative, the scope and size of the RWMP would be reduced by half, resulting in a system capacity of 8,700 af/yr of recycled water. Recycled water supplies would be limited to effluent from the Valencia Water Reclamation Plant (WRP) and no additional sources would be required. The eight recycled water reservoir tanks would be reduced to approximately four reservoirs. The distribution system would be reduced in scope, although depending on the distance between customers, distribution system reductions may not be proportional to the reduction in supply. For instance, pipelines may be smaller in diameter due to reduced needs for system capacity; however, pipelines would still be required to extend to customers throughout the CLWA service area. Therefore, the amount of linear pipeline required may not be proportionally reduced under this scenario.

The recycled water pump station at the Berry Petroleum Oil Field would not be required because the Valencia WRP would be the sole source of recycled water. The booster pump station (Honby site) would still be required under this alternative. However, the need for

additional booster pump stations may be reduced due to the smaller distribution system. The aquifer storage and recovery (ASR) facility would still be required, although the size of the needed aquifer space and the associated pumping systems would be reduced.

The reduction in the amount of recycled water produced under this alternative would likely require that CLWA obtain an additional 8,700 af/yr of potable water to meet the water demands as set forth in the 2005 UWMP. The 8,700 af/yr could be obtained through either the purchase of additional SWP water or through participation in the creation of a desalination plant. These options for increasing the amount of water available to meet 2005 UWMP projections were previously discussed in Sections 7.3.2 and 7.3.3.

Impacts

Growth-inducement and growth-related impacts within the CLWA service area would be similar to those described for the implementation of the RWMP. Impacts to all environmental factors associated with the construction of the RWMP facilities and associated pipelines would be reduced due to the elimination of half of the reservoir tanks and likely reductions in the amount of pipeline and number of booster pump stations required. Recycled water would supply 8,700 af/yr; however, an additional 8,700 af/yr of supply would need to be obtained by the CLWA in order to meet the water demands as set forth in the 2005 UWMP. Therefore, impacts similar to those described in Alternatives 2 and 3 would also result from implementation of this alternative. An analysis of the impacts of this alternative is presented below.

Alternative 4 (A) with Purchase of Potable Water

Alternative 4A would require the purchase of 8,700 af/yr of potable water in addition to the 8,700 af/yr of recycled water supplied through the reduced capacity RWMP.

Aesthetics/Visual Resources — Construction-related and long-term operational impacts associated with aesthetics would be reduced under this alternative due to a decrease in the amount of infrastructure required, including a decrease in the number of reservoir storage tanks. As previously discussed, there would be no aesthetic impacts associated with the purchase of potable water. Therefore, impacts would be less under this alternative than under the RWMP.

Agricultural Resources — The reduction in the number of reservoir tanks under this alternative may or may not result in avoidance of all important farmland. Therefore, impacts associated with agricultural resources may not be reduced. As previously discussed, there would be no agricultural impacts associated with the purchase of potable water. Therefore, impacts would be the same under this alternative.

Air Quality — Construction-related air quality would be reduced under this alternative due to a decrease in the amount of infrastructure construction required to support the 8,700 af/yr recycled water system. As previously discussed, air quality impacts associated with the purchase of potable water would be less than significant. Therefore, impacts would be less under this alternative.

Biological Resources — Construction-related and long-term operational impacts associated with biological resources would be reduced under this alternative due to a decrease in the amount of infrastructure required to support the 8,700 af/yr recycled water system. As previously discussed, there would be no biological impacts associated with the purchase of potable water supplies. Therefore, impacts would be comparable to the proposed project.

Cultural Resources — Construction-related and long-term operational impacts associated with cultural resources would be reduced under this alternative due to a decrease in the amount of ground-disturbance required to support the 8,700 af/yr recycled water system. As previously discussed, there would be no cultural impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Geology, Soils, and Mineral Resources — Construction-related and long-term operational impacts associated with geology, soils, and mineral resources would be reduced under this alternative due to a decrease in the amount of ground-disturbance required to support the 8,700 af/yr recycled water system. As previously discussed, there would be no geology, soils, or mineral resources impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Hazards and Hazardous Materials — Construction-related and long-term operational impacts associated with hazards and hazardous materials would be reduced under this alternative due to a decrease in the amount of infrastructure that would be located in wildland areas. As previously discussed, there would be no impacts related to hazards or hazardous materials associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Hydrology and Water Quality — Construction-related and long-term operational impacts associated with hydrology and water quality would be reduced under this alternative due to a decrease in the amount of infrastructure required to support the 8,700 af/yr recycled water system and a decrease in the amount of recycled water used for irrigation. As previously discussed, there would be no hydrology and water quality impacts associated the purchase of potable water supplies (although impacts to the Central Valley would need to be studied to determine impacts from export of water). Therefore, impacts would be less under this alternative.

Land Use and Planning — Construction-related and long-term operational impacts associated with land use and planning would be reduced under this alternative due to a decrease in the amount of infrastructure required to support the 8,700 af/yr recycled water system. As previously discussed, there would be no land use and planning impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Noise — Construction-related and long-term operational impacts associated with noise would be reduced under this alternative due to a decrease in the amount of infrastructure that would need to be constructed. As previously discussed, there would be no noise impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Population and Housing — The RWMP would have no impacts associated with population and housing; therefore, this alternative would have no impacts associated with population and housing. As previously discussed, there would be no population and housing impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Public Services — The RWMP would have no impacts associated with public services; therefore, this alternative would have no impacts associated with public services. As previously discussed, there would be no public services impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Recreation — The RWMP would have no impacts associated with recreation; therefore, this alternative would have no impacts associated with recreation. As previously discussed, there would be no recreation impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Traffic and Transportation — Construction-related and long-term operational impacts associated with traffic and transportation would be reduced under this alternative due to a decrease in the amount of infrastructure construction that would require temporary traffic diversions. As previously discussed, there would be no traffic and transportation impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Utilities and Service Systems — Construction-related and long-term operational impacts associated with utilities and service systems would be reduced under this alternative due to a decrease in the amount of construction and demolition debris from infrastructure construction. As previously discussed, there would be no utilities and service system impacts associated the purchase of potable water supplies. Therefore, impacts would be less under this alternative.

Alternative 4 (B) with Purchase of Desalinated Water

Alternative 4B would require the purchase of 8,700 af/yr of desalinated water in addition to the 8,700 af/yr of recycled water supplied through the reduced capacity RWMP.

Aesthetics/Visual Resources — Construction-related and long-term operational impacts associated with aesthetics would be reduced under this alternative due to a decrease in the amount of infrastructure required, including a decrease in the number of reservoir storage tanks. As previously discussed, aesthetics impacts associated with the desalination plant would have greater impacts when compared to the proposed project. Because aesthetic impacts would still include several reservoir tanks and wellheads, impacts would be greater under this alternative.

Agricultural Resources — The reduction in the number of reservoir tanks under this alternative may or may not result in avoidance of all important farmland. Therefore, impacts associated with agricultural resources may not be reduced. As previously discussed, agricultural impacts associated with the desalination plant would be comparable to the impacts associated with the proposed project. Therefore, impacts would be the same under this alternative.

Air Quality — Construction-related air quality would be reduced under this alternative due to a decrease in the amount of infrastructure construction required to support the 8,700 af/yr recycled water system. As previously discussed, air quality impacts associated with the desalination plant would be comparable to the proposed project. Therefore, impacts would be less under this alternative.

Biological Resources — Construction-related and long-term operational impacts associated with biological resources would be reduced under this alternative due to a decrease in the amount of infrastructure required to support the 8,700 af/yr recycled water system. However, as previously discussed, biological impacts associated with the desalination plant would increase impacts when compared to the proposed project. Therefore, impacts would be greater under this alternative.

Cultural Resources — Construction-related and long-term operational impacts associated with cultural resources would be reduced under this alternative due to a decrease in the amount of ground-disturbance required to support the 8,700 af/yr recycled water system. As previously discussed, cultural impacts associated with the desalination plant would be comparable to the proposed project. Therefore, impacts would be less under this alternative.

Geology, Soils, and Mineral Resources — Construction-related and long-term operational impacts associated with geology, soils, and mineral resources would be reduced under this alternative due to a decrease in the amount of ground-disturbance required to support the 8,700 af/yr recycled water system. As previously discussed, geology, soils, and mineral resources impacts associated with the desalination plant would be comparable to the proposed project. Therefore, impacts would be less under this alternative.

Hazards and Hazardous Materials — Construction-related and long-term operational impacts associated with hazards and hazardous materials would be reduced under this alternative due to a decrease in the amount of infrastructure that would be located in wildland areas. However, as previously discussed, hazards and hazardous materials impacts associated with the desalination plant would be greater when compared to the proposed project. Therefore, impacts would be greater under this alternative.

Hydrology and Water Quality — Construction-related and long-term operational impacts associated with hydrology and water quality would be reduced under this alternative due to a decrease in the amount of infrastructure required to support the 8,700 af/yr recycled water system and a decrease in the amount of recycled water used for irrigation. However, as previously discussed, hydrology and water quality impacts associated with the desalination plant would be greater when compared to the proposed project. Therefore, impacts would be greater under this alternative.

Land Use and Planning — Construction-related and long-term operational impacts associated with land use and planning would be reduced under this alternative due to a decrease in the amount of infrastructure required to support the 8,700 af/yr recycled water system. As previously discussed, land use and planning impacts associated with the desalination plant would be comparable to the proposed project. Therefore, impacts would be less under this alternative.

Noise — Construction-related and long-term operational impacts associated with noise would be reduced under this alternative due to a decrease in the amount of infrastructure that would need to be constructed. As previously discussed, noise impacts associated with construction of a desalination plant would reduce impacts when compared to the proposed project. Therefore, impacts would be less under this alternative.

Population and Housing — The RWMP would have no impacts associated with population and housing; therefore, this alternative would have no impacts associated with population and housing. As previously discussed, construction and operation of a desalination plant would also have no impact on population and housing; therefore, impacts would be comparable to the proposed project.

Public Services — The RWMP would have no impacts associated with public services; therefore, this alternative would have no impacts associated with public services. As previously discussed, construction and operation of a desalination plant would also have no impact on public services; therefore, impacts would be comparable to the proposed project.

Recreation — The RWMP would have no impacts associated with recreation; therefore, this alternative would have no impacts associated with recreation. As previously discussed, construction and operation of a desalination plant would also have no impact on recreation; therefore, impacts would be comparable to the proposed project.

Traffic and Transportation — Construction-related and long-term operational impacts associated with traffic and transportation would be reduced under this alternative due to a decrease in the amount of infrastructure construction that would require temporary traffic diversions. As previously discussed, traffic impacts associated with construction and operation of a desalination plant would be comparable to the proposed project. Therefore, impacts would be less under this alternative.

Utilities and Service Systems — Construction-related and long-term operational impacts associated with utilities and service systems would be reduced under this alternative due to a decrease in the amount of construction and demolition debris from infrastructure construction. As previously discussed, utilities and service systems impacts associated with construction of a desalination plant would be comparable to the proposed project. Therefore, impacts would be less under this alternative.

Analysis of Proposed Project Objectives

In response to the State of California's mandate to increase the use of recycled water, objectives of the RWMP are as follows:

1. To satisfy the legislative mandates, as set forth in the Water Recycling Act of 1991, which encourage the production and use of recycled water through the established statewide goal of recycling a total of 700,000 af/yr of water by the year 2000 and 1,000,000 af/yr by the year 2010.

   This objective would be satisfied by Alternative 4, although to a lesser degree than would occur under the proposed project.

2. To conserve potable water supplies by making recycled water available for various non-potable uses including irrigation, industrial processes, and recreational enhancement, where feasible and appropriate.

   This objective would be satisfied by Alternative 4, although to a lesser degree than would occur under the proposed project.

3. To develop a cost-effective system for the delivery of recycled water.

   This objective would be not be satisfied by Alternative 4. As currently proposed, the 17,400 af/yr proposed in the RWMP is based on an analysis of supply and demand. A reduction in the size of the RWMP system would not be based on the economics of supply and demand, and would therefore, be a less cost-effective system.

4. To create a recycled water system that can produce enough water to meet the recycled water demands of its existing and future customers.

   This objective would be not be satisfied by Alternative 4. As currently proposed, the 17,400 af/yr proposed in the RWMP is based on an analysis of supply and demand. A reduction in the size of the RWMP system would not satisfy the anticipated demand in the Santa Clarita Valley for recycled water.

5. To make recycled water available to as many CLWA customers as economically and geographically feasible

   This objective would be not be satisfied by Alternative 4. As currently proposed, the 17,400 af/yr proposed in the RWMP is based on an analysis of supply and demand. A reduction in the size of the RWMP system would not provide recycled water to as many CLWA customers as economically feasible because the supply and demand analysis performed by the CLWA determined that 17,400 af/yr was need to satisfy the potential CLWA customers.

7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative and Alternative 2 (Purchase of Potable Water) would reduce or avoid the proposed project's significant air quality impacts. Upon consideration of all environmental factors, the No Project Alternative is the environmentally superior option because all construction and operational impacts would be avoided. Additionally, the No Project Alternative would likely result in a constraint to future development due to a reduction in the water supply, as currently anticipated in the 2005 UWMP. This would also be a temporary environmental benefit of the No Project Alternative. However, the No Project Alternative does not support any of the project objectives. Additionally, pursuant to CEQA Guidelines Section 15126.6(2), "If the environmentally superior alternative is the 'No Project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Therefore, the environmentally superior alternative would be the Alternative 2—Purchase of Potable Water. This alternative would avoid the majority of the impacts associated with the construction of the proposed project. It should be noted that, with the exception of the significant air quality impact, the other impacts of the proposed RWMP project are less than significant after mitigation. Additionally, this alternative would not be consistent with any project objectives, and the environmental impacts of receiving additional potable water supplies from other parts of the state (i.e., impacts to the source location of the water supply) cannot be adequately analyzed for the purposes of this EIR. Table 7.4-1 provides a summary comparison of the direct environmental impacts of each of the alternatives to the proposed project.

TABLE 7.4-1
ALTERNATIVE ANALYSIS SUMMARY

Resource Area	No Project Alternative	Purchase of Potable Water	Purchase of Desalinated Water	Reduced Capacity RWMP	
				(A) With Potable Water Purchase	(B) With Desalinated Water Purchase
Aesthetics/Visual Resources	-	--	+	-	+
Agricultural Resources	-	--	=	=	=
Air Quality	-	-	=	-	-
Biological Resources	-	--	+	-	+
Cultural Resources	-	--	=	-	-
Geology/Soils/Mineral	-	--	=	-	-
Hazards/Hazardous Materials	-	--	+	-	+
Hydrology/Water Quality	-	-	+	-	+
Land Use and Planning	-	--	=	-	-
Noise	-	--	=	-	-
Population and Housing	=	--	=	-	=
Public Services	=	--	=	-	=
Recreation	=	--	+	-	=
Transportation and Circulation	-	--	=	-	-
Utilities and Service Systems	-	--	=	-	-

Legend:
= Alternative's impacts are comparable to RWMP impacts
- Alternative would reduce RWMP impacts
-- Alternative would avoid RWMP impacts
+ Alternative's impacts are greater than RWMP impacts
+ / - Alternative would reduce or avoid some impacts, increase other impacts

SECTION 8.0 REFERENCES AND PERSONS CONSULTED

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Following are a list of agencies, persons, and organizations consulted in the preparation of this Draft Environmental Impact Report.

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SECTION 10.0 LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Acronym or Abbreviation Description
A	
ACOE (USACE)	U.S. Army Corps of Engineers
Act	California Urban Water Management Planning Act
ac-ft	acre-feet
AF/yr	acre-feet per year
AGR	agricultural supply
ANSI	American National Standards Institute
AQMD	Air Quality Management District
ARMR	Archaeological Resource Management Report (state guidelines)
ASR	aquifer storage and recovery
AWWA	American Water Works Association
B	
BACT	Best Available Control Technology
Basin	South Coast Air Basin
Basin Plan	Los Angeles Regional Water Quality Control Board Basin Water Quality Plan
BMPs	Best Management Practices (or Programs)
C	
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
CalOSHA	California Occupational Safety and Health Administration
Cal EPPC	California Exotic Pest Plant Council
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
C&D	construction and demolition
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHL	California Historical Landmark
CHP	California Highway Patrol
CIWMB	California Integrated Waste Management Board
CLADPW	County of Los Angeles Department of Public Works
CLATO	County of Los Angeles Oak Tree Ordinance
CLWA	Castaic Lake Water Agency
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalency Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CPHI	California Points of Historical Interest
CRHR	California Register of Historic Resources
CWA	Clean Water Act, Federal (1977)

Acronym	Acronym or Abbreviation Description
D	
dB	Decibel
dBA	decibel, A-weighted
DBH	diameter at breast height
DIP	ductile iron pipe
DHS	Department of Health Services, State of California
DTSC	Department of Toxic Substances Control, State of California
DWR	Department of Water Resources, State of California
E	
Edison	Southern California Edison
EIR	Environmental Impact Report (CEQA)
EPA (also see USEPA)	U.S. Environmental Protection Agency
ESFP	Earl Schmidt Filtration Plant
F	
°F	Degrees Fahrenheit
FAA	Federal Aviation Administration
FCAA	Federal Clean Air Act
FMMP	Farmland Mapping and Monitoring Program
ft	feet
G	
GMC	Growth Management Chapter
GMP	Groundwater Management Plan
gdp/ft	gallons per day per foot
gpm	gallons per minute
H	
H&SC	Health and Safety Code, State of California
HMMP	Hazardous Materials Management Plans
HOV	high-occupancy vehicle lane
HPDF	Historic Property Data File, Office of Historic Preservation
HRA	health risk assessment
I	
in	inches
J	
None	
K	
None	
L	
LACSD	Sanitation Districts of Los Angeles County
LARWQCB	Los Angeles Regional Water Quality Control Board
Ldn	Day-Night Sound Level
Leq	Equivalent Noise Level
LF	linear feet

Acronym	Acronym or Abbreviation Description
M	
MCE	Maximum Credible Earthquake
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
MG	million gallon
mgd	million gallons per day
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration (CEQA)
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MUN	municipal and domestic supply
M&I	municipal and industrial
N	
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NDN	nitrification/denitrification
NDWC	National Drinking Water Clearinghouse
NHMLAC	Natural History Museum of Los Angeles County
NO_2	nitrogen dioxide
NO_3	nitrate as nitrogen
NO_x	oxides of nitrogen (nitric oxide and nitrogen dioxide)
NOP	Notice of Preparation (CEQA)
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRMP	Natural River Management Plan
O	
O_3	Ozone
ODCs	Ozone Depleting Compounds
OEHHA	Office of Environmental Health Hazard Assessment, State of California
OEM	original equipment manufacturer
OES	Office of Emergency Services, State of California
OHP	Office of Historic Preservation, State of California
OPR	Office of Planning and Research, State of California
OSHA	Occupational Safety and Health Agency
P	
Pb	Lead
$PM_{2.5}$	respirable particulate matter less than 2.5 micrometers in diameter
PM_{10}	respirable particulate matter less than 10 micrometers in diameter
POTW	publicly owned treatment works
PRC	Public Resources Code
PS	Pumping Station
psi	pounds per square inch
PVC	Polyvinyl Chloride
Q	
None	
R	
RCPG	Regional Comprehensive Plan and Guide, Southern California Association

Acronym	Acronym or Abbreviation Description
	of Governments
RMP	Risk Management Program
RMPP	Risk Management and Prevention Program, State of California
ROC	reactive organic compounds
ROG	reactive organic gases
ROW	right-of-way
RRP	Recycling and Reuse Plan
RTP	Regional Transportation Plan
RVWTP	Rio Vista Water Treatment Plant
RWMP	Recycled Water Master Plan
RWQCB	Regional Water Quality Control Board
S	
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCAQMP	South Coast Air Quality Management Plan
SCCIC	South Central Coastal Information Center
SCREMP	Santa Clara River Enhancement and Management Plan
SCVJSS	Santa Clarita Valley Joint Sewerage System
SEA	Significant Ecological Area
SFTP	Six Flags Theme Parks, Inc.
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_4	Sulfates
SO_x	sulfur oxides
SOAR	Ventura County Save Open Space and Agricultural Resources Initiative
SR	State Route
SUSMP	Standard Urban Stormwater Management Plan
SWIS	Solid Waste Information System
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
T	
TAC	toxic air contaminants
T-BACT	best available control technology for toxics
TDS	total dissolved solids
TMDL	Total Maximum Daily Load
TSP	Total Suspended Particulates
U	
UBC	Uniform Building Code
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Coce
USDA	U.S. Department of Agriculture
USDC	U.S. District Court
USDI	U.S. Department of the Interior
USDO	U.S. District Office
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UV	ultraviolet

Acronym	Acronym or Abbreviation Description
UWMP	2000 Castaic Lake Water Agency Urban Water Management Plan
V	
VOC	volatile organic compounds
VWC	Valencia Water Company
W	
WATCH	Work Area Traffic Control Handbook
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity, USEPA
WLA	waste load allocation
WRP	Water Reclamation Plant
Z	
None	
Symbols	
µg/L	micrograms per liter
$\mu g/m^3$	micrograms per cubic meter

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