1
INTRODUCTION

1.1 SANITATION DISTRICTS OF LOS ANGELES COUNTY

The Sanitation Districts of Los Angeles County (Sanitation Districts) are a confederation of independent special districts that serve the wastewater and solid waste management needs of approximately 5.4 million people in Los Angeles County. The Sanitation Districts' service area covers approximately 820 square miles and encompasses 78 cities and unincorporated territory within the county.

The Sanitation Districts were formed under the authority provided by the County Sanitation District Act of 1923 (Act). To allow for a more efficient means of wastewater management, the Act authorized the formation of sanitation districts determined by drainage areas rather than political boundaries. Provisions of the Act authorize the Sanitation Districts to construct, operate, and maintain facilities for the collection, treatment, and management of wastewater and industrial wastes generated throughout the Sanitation Districts' service area. In 1949, the Act was amended to allow the Sanitation Districts to provide solid waste management services, including refuse transfer and resource recovery. The Sanitation Districts' service area, facilities, and the boundaries of individual sanitation districts and facilities are shown on Figures 1-1a and 1-1b.

The Sanitation Districts consist of 23 separate sanitation districts working cooperatively under a Joint Administration Agreement (JAA) and benefiting from a centralized administrative staff headquartered in Whittier, California. Each district has a separate board of directors consisting of the presiding officers of the governing bodies of the local jurisdictions situated within that district. Each district is required to pay its proportionate share of the joint administration costs, pursuant to the terms of the JAA.

The Sanitation Districts own, operate, and maintain over 1,400 miles of main trunk sewers and 11 wastewater treatment plants with a total permitted capacity of 652 million gallons per day (mgd). The Sanitation Districts' sewerage system currently conveys and treats approximately 450 mgd of wastewater. During 2010, 165 mgd of wastewater was treated to a tertiary level and approximately 50 percent of this treated water was beneficially reused for a variety of applications including landscape and agricultural irrigation, industrial process water, recreational impoundments, wildlife habitat maintenance, and groundwater replenishment.

The Sanitation Districts also operate a solid waste management system that serves the needs of a large portion of the county. This system includes three active sanitary landfills, four landfill energy recovery facilities, two recycle centers, three materials recovery and transfer facilities, and one refuse-to-energy facility. The Sanitation Districts' new waste-by-rail system consisting of the Puente Hills Materials Recovery Facility, the Puente Hills Intermodal Facility and Mesquite Regional Landfill will

be completed by the end of October 2013. In addition, the Sanitation Districts maintain three closed sanitary landfills and participate in the ownership of the Southeast Resource Recovery Facility, a refuse-to-energy facility. Altogether, the Sanitation Districts' solid waste management sites provide about one third of the countywide solid waste management needs. The local collection and transportation of solid waste to Sanitation Districts' facilities is the responsibility of the jurisdictions within the Sanitation Districts' service area.

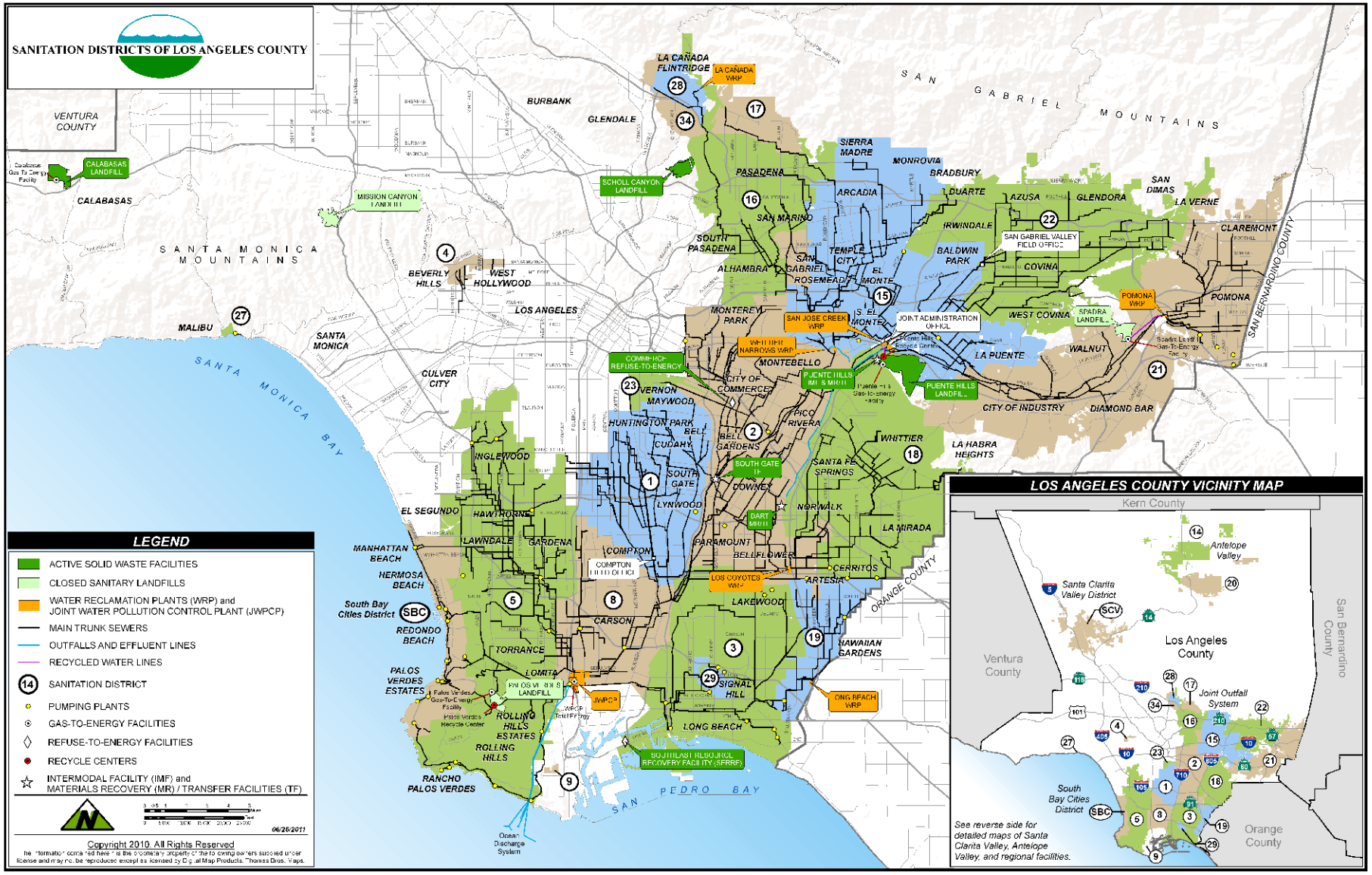
1.2 SANTA CLARITA VALLEY SANITATION DISTRICT

The Santa Clarita Valley Sanitation District (SCVSD), formerly Sanitation Districts Nos. 26 and 32 of Los Angeles County (Sanitation Districts Nos. 26 and 32), provides wastewater management services to the Santa Clarita Valley (SCV), which is located in the northwestern portion of the county. The governing board for the SCVSD consists of three Directors: the Mayor and a City Council member of the City of Santa Clarita, and the Chair of the County Board of Supervisors. SCVSD operates a regional wastewater management system that serves the City of Santa Clarita and a portion of unincorporated county. The system consists of an interconnected network of over 42 miles of trunk sewers, one pumping plant, and two interconnected water reclamation plants (WRPs). The Saugus Water Reclamation Plant (SWRP) and the Valencia Water Reclamation Plant (VWRP) have a combined treatment capacity of 28.1 mgd and currently treat approximately 20 mgd of wastewater. The two plants provide tertiary treatment, which produces high quality recycled water that is suitable for reuse. A portion of the recycled water is reused and the remainder is discharged into the upper reaches of the Santa Clara River (SCR).

Sanitation District No. 26 was formed on January 2, 1961, to serve the unincorporated areas of Saugus, Canyon Country, and Sand Canyon. The SWRP began operating in July of the following year with an initial capacity of 0.25 mgd. Sanitation District No. 32 was formed on March 23, 1965, to serve Valencia, Newhall, and Castaic (areas west of Saugus). The VWRP began operating two years later with an initial capacity of 0.9 mgd.

During the two decades following the formation of Sanitation Districts Nos. 26 and 32, the SWRP and the VWRP operated independently, treating wastewater generated within their respective boundaries and discharging treated effluent to the SCR. As the population within the SCV grew, the SWRP and VWRP went through a series of expansions to accommodate increasing wastewater flows. The first two stages of SWRP expansion (Stages I and II) were completed in 1964 and 1965, respectively, and increased the plant's capacity to 1.5 mgd. The Stage III expansion in 1968 brought the plant's capacity up to 5.6 mgd and included primary sedimentation tanks, aeration basins, final sedimentation tanks and sludge stabilization facilities. The first VWRP expansion (referred to as Stage II) was completed in 1976. This expansion increased the treatment capacity to 3.9 mgd and included the first effluent filters and solids processing systems.

Following the SWRP's Stage III expansion, no additional land was available at the site for expansion. To continue treating all wastewater generated within its service area, Sanitation District No. 26 entered into an interim Joint Powers Agreement (JPA) with Sanitation District No. 32. Under the interim JPA, the District No. 26 Interceptor Trunk Sewer was constructed in 1981. This sewer diverted flow from Sanitation District No. 26 to the VWRP, where land was available to construct facilities to treat the additional wastewater. In addition, the solids processing facilities were centralized at the VWRP by (1) construction of a force main to convey waste activated sludge (WAS) from the SWRP to the VWRP and (2) returning primary solids from SWRP to the sewer for treatment at VWRP.



Santa Clarita Valley Sanitation District Chloride Compliance Facilities Plan and EIR

Figure 1-1a

Sanitation Districts of Los Angeles County Service Area and Facilities

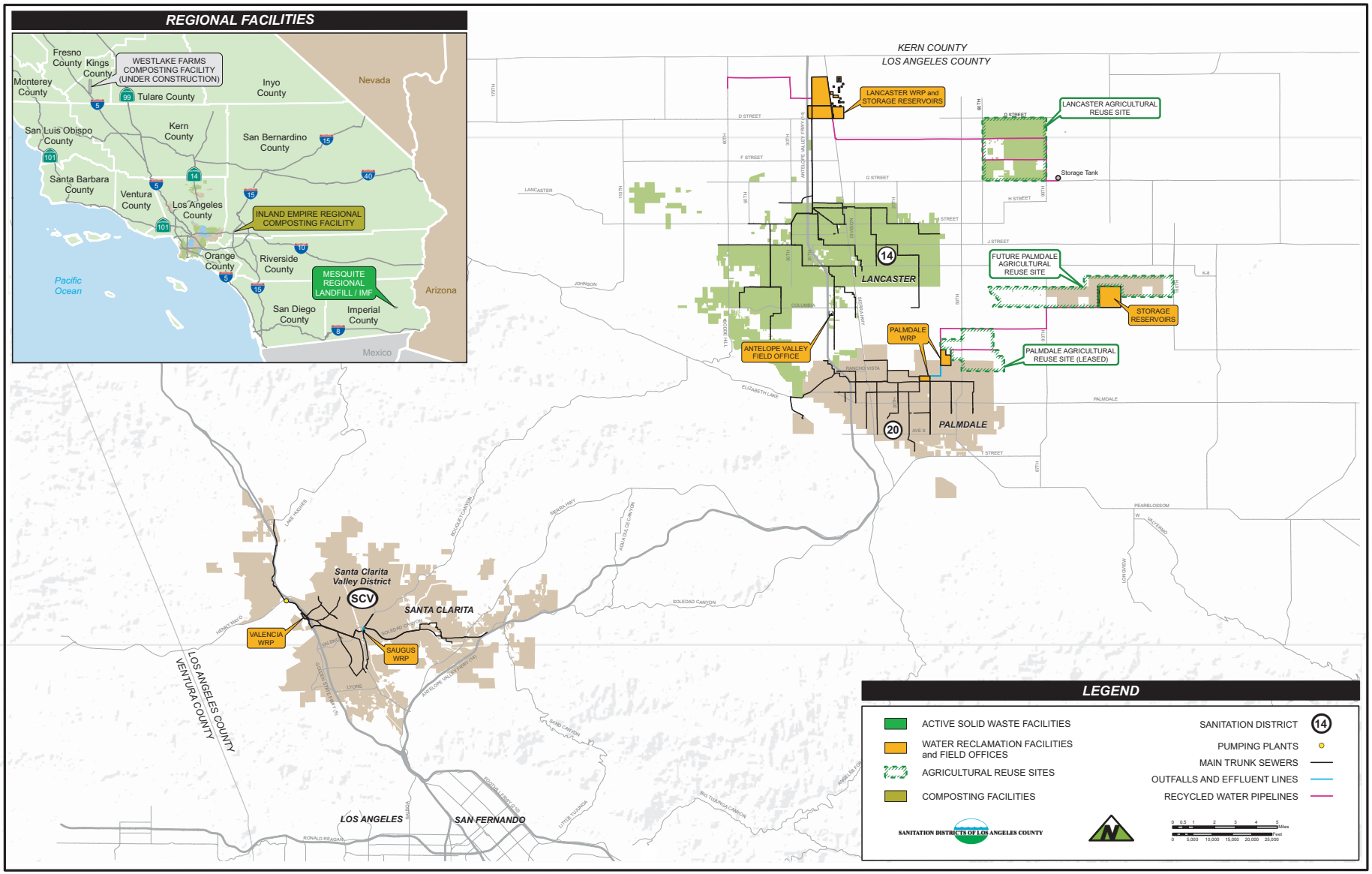


Figure 1-1b

Sanitation Districts of Los Angeles County Service Area and Facilities

The Santa Clarita Valley Joint Sewerage System (SCVJSS) was officially formed in 1984 when Sanitation Districts Nos. 26 and 32 entered into a final JPA. It was agreed that the SWRP would continue to primarily serve Sanitation District No. 26, and any flow exceeding the capacity of the SWRP would be conveyed to the VWRP for treatment. Filtration and chlorination-dechlorination were added to the SWRP in 1987, followed by the conversion of the solids stabilization facilities into flow equalization tanks in 1991. The flow equalization facilities allowed the plant to reach its current permitted capacity of 6.5 mgd.

The VWRP continued to expand to meet the needs of the SCVJSS. In 1988, the Stage III expansion increased the plant's capacity to 6.6 mgd and included new primary sedimentation tanks, aeration tanks, final sedimentation tanks and effluent filters. The same year, the solids processing systems were upgraded and expanded with the addition of dissolved air flotation (DAF) thickeners, additional digesters and new filter press dewatering facilities. In 1996, the Stage IV expansion increased treatment capacity to 11.0 mgd and included flow equalization facilities. An additional aeration tank and sedimentation tank were added in 1996 that increased the plant's capacity to 12.6 mgd. Two years later, the solids processing systems were upgraded and expanded to handle the additional solids.

In November of 2003, Sanitation Districts Nos. 26 and 32 began a process to consolidate into a single district. The Local Agency Formation Commission (LAFCO) of Los Angeles County approved the consolidation in March of 2004. The change became effective July 1, 2005, and the consolidated district was renamed the SCVSD. The Stage V expansion of the VWRP was also completed in 2005, which brought the plant to its current permitted capacity of 21.6 mgd. Most recently, the SWRP's and VWRP's secondary treatment systems were upgraded in 2005 and 2006, respectively, to operate in a nitrification-denitrification (NDN) mode.

1.2.1 SCVSD Boundary and Sphere of Influence

A sphere of influence (SOI), as defined by §56076 of the Cortese/Knox/Hertzberg Local Government Reorganization Act of 2000, constitutes "the probable physical boundaries and service area of a local agency." An SOI of a sanitation district is generally determined by topography and drainage, and may not correspond to political boundaries.

LAFCO, which is responsible for managing annexations to SCVSD's service area boundary, is also responsible for managing the SOI. A district generally cannot annex territory beyond its SOI without first amending the SOI through LAFCO. The current SOI for the SCVSD was adopted by LAFCO on January 14, 2004. Figure 1-2 shows the current service area and SOI boundaries for the SCVSD. The current SCVSD service area is approximately 60 square miles. SCVSD provides service to approximately 42 square miles of the City of Santa Clarita and approximately 19 square miles of surrounding unincorporated county.

1.2.2 Past Facilities Planning Efforts and Environmental Documentation

In 1980, the Sanitation Districts prepared the Upper Santa Clara River Basin Facilities Plan (1980 Plan) and the associated Environmental Impact Report (EIR), which were approved and certified the same year. The Addendum to the Final 1980 EIR and Facilities Plan (Addendum) was approved in 1987.

The 1980 Plan was intended to provide for wastewater collection, treatment, and disposal services to the SCV through the year 2000. The 1980 Plan had the following objectives:

- Provide adequate treatment of wastewater and sludge to meet discharge requirements
- Provide adequate capacity to treat projected wastewater loads
- Plan consistently with other planning agencies
- Plan for the funding of system improvements and expansion

To maintain compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements at the SWRP, effluent filters, chlorination-dechlorination facilities, and an additional primary sedimentation tank were recommended in the 1980 Plan. Other modifications based on the 1980 Plan included the construction of the District No. 26 Interceptor Trunk Sewer, the WAS force main and centralized solids processing facilities at the VWRP.

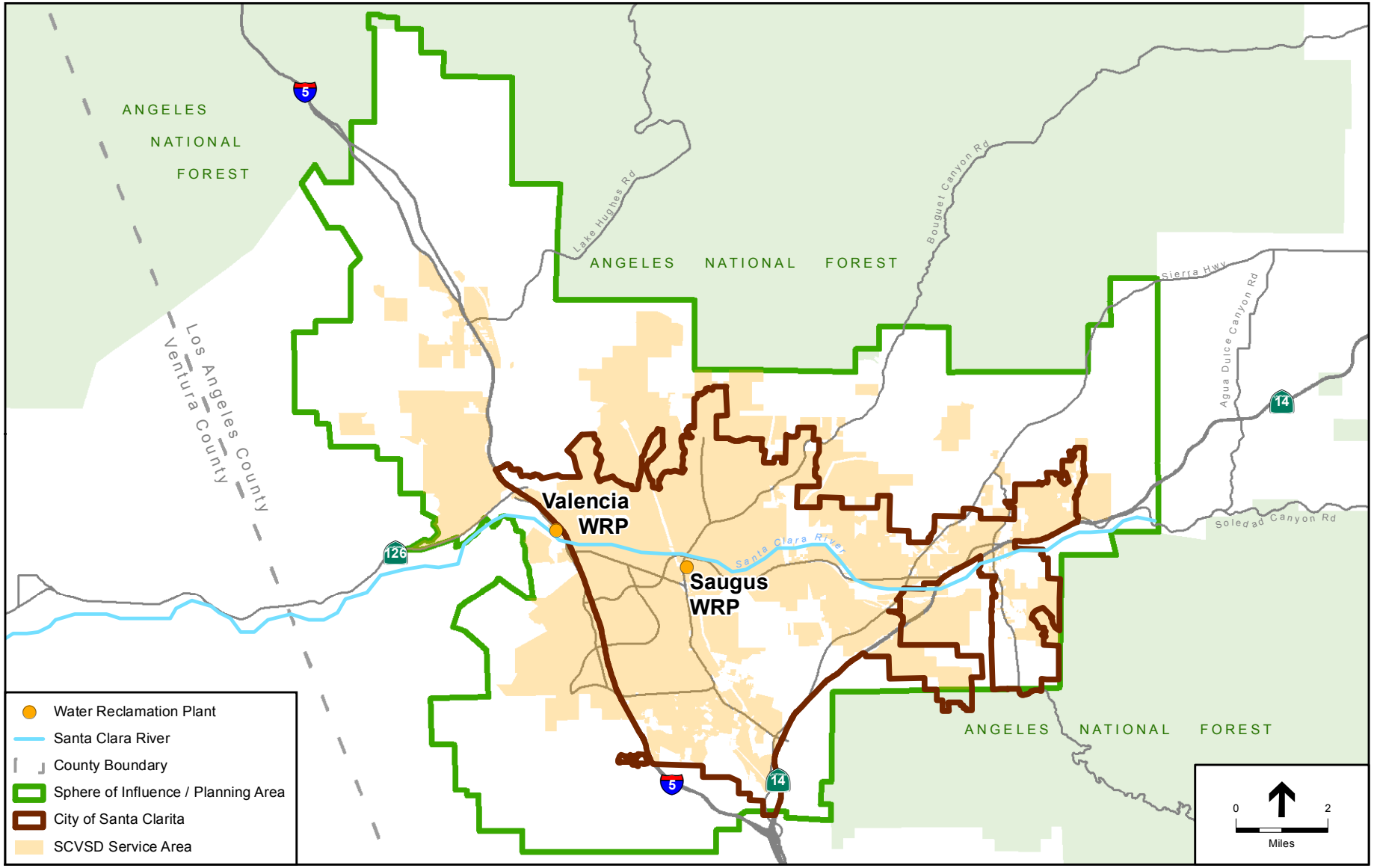
The analyses performed for the 1980 Plan projected a combined wastewater generation rate of 12.5 mgd for Sanitation Districts Nos. 26 and 32 by the year 2000. By 1987, however, flows were approaching the system capacity of 12.5 mgd. In response, the Sanitation Districts prepared the Addendum, which incorporated revised flow projections consistent with actual flows and the latest population projections. The Addendum recommended an increase in the system capacity from 12.5 mgd to 19.1 mgd by the year 2000. Digesters previously used at the SWRP for solids processing were converted to flow equalization basins allowing the SWRP to treat up to 6.5 mgd. In 1996, the VWRP was expanded to accommodate 12.6 mgd by construction of flow equalization basins and additional sedimentation, aeration and disinfection facilities.

The most recent wastewater facilities planning effort for the SCV is the 2015 Santa Clarita Valley Joint Sewerage System Facilities Plan and EIR (2015 Plan), which was approved and certified in 1998. The 2015 Plan was prepared to address the projected population growth for the planning area through the year 2015. In addition, the 2015 Plan addressed biosolids disposal, wastewater conveyance needs, and water reuse opportunities. The objective of the 2015 Plan was to provide for the necessary wastewater conveyance, treatment, and disposal facilities to meet the needs of the projected service area through the year 2015.

The recommended project from the 2015 Plan provided for the incremental expansion of the VWRP to a total site capacity of 27.6 mgd. The VWRP expansion would occur in two stages. Stage V would provide for a 9 mgd expansion on the southern portion of the site. Stage VI would provide for a 6 mgd expansion on the north parcel. The Stage V expansion of the VWRP was completed in 2005, while the need for the capacity from Stage VI has not yet materialized. In addition to the expansion of the VWRP, NDN upgrades at the SWRP and the VWRP were recommended to reduce ammonia levels in the effluent. Modifications to the existing SWRP and VWRP facilities to operate in an NDN mode were completed in 2005 and 2006, respectively.

1.3 NEED FOR PROJECT

The SCR supports aquatic species and habitat and recharges the underlying groundwater basin that serves as a water supply. Under the federal Clean Water Act and the state's Porter Cologne Act, the California Regional Water Quality Control Board-Los Angeles Region (RWQCB-LA) is responsible for regulating discharges to the Santa Clara River to protect beneficial uses of the river. In fulfilling this responsibility, the RWQCB-LA adopted the Upper Santa Clara River



Santa Clarita Valley Sanitation District Chloride Compliance Facilities Plan and EIR

Figure 1-2

SCVSD Service Area and Sphere of Influence

Chloride Total Maximum Daily Load (Chloride TMDL) in 2002. The Chloride TMDL was subsequently revised in 2003, 2004, 2006, and 2008. The Chloride TMDL imposes a chloride limit of 100 milligrams per liter (mg/L) for the treated water discharged to the SCR from the VWRP and SWRP.

Chloride is naturally present in the drinking water supplied to Santa Clarita homes and businesses. When wastewater leaves homes and businesses in the sewer system, the chloride level is higher due to additions from regular human activities. Chloride is also added during wastewater treatment mainly during disinfection. These additions cause chloride levels in the treated wastewater to exceed the 100 mg/L limit.

In December 2008, the RWQCB-LA revised the Chloride TMDL to allow a higher 117 mg/L chloride limit contingent upon the implementation of a specific alternative compliance strategy known as Alternative Water Resources Management Plan (AWRM). The Chloride TMDL is discussed in more detail in Section 3.

In recent years, chloride levels in the WRP discharges have dropped significantly due to improved source control, largely through the community's removal of over 8,000 automatic water softeners. Additional efforts to remove the relatively small number of remaining water softeners are underway. These reduced chloride levels provide a major benefit by reducing the size and cost of additional treatment facilities needed to comply with the chloride limit. Although chloride in the WRP discharges has been reduced, the state's regulation requires further chloride reduction to comply with either the 100 mg/L chloride limit or the modified 117 mg/L chloride limit conditioned upon construction of the AWRM facilities. Chloride removal facilities are needed to comply with either limit.

SCVSD is preparing this Santa Clarita Valley Sanitation District Chloride Compliance Facilities Plan and Environmental Impact Report (Facilities Plan and EIR) to comply with the Chloride TMDL. As described in Section 4.6.3, the Stage VI expansion of the VWRP is not expected to be needed until 2036. The anticipated Stage VI facilities were laid out in the 2015 Plan and received coverage under the California Environmental Quality Act (CEQA) through the accompanying EIR. Consequently, expansion of facilities to handle growth is not a project objective, and facilities that would expand the SCVSD treatment capacity are not part of the project recommended in this Facilities Plan.

1.4 PROJECT OBJECTIVES

The goal of this Facilities Plan is to identify a plan that meets the project objectives in a cost-effective and environmentally sound manner. The objectives of this Facilities Plan are as follows:

- Provide compliance with the Chloride TMDL for SCVSD wastewater treatment and discharge facilities

- Provide the necessary wastewater treatment facilities and programs for chloride removal while conserving the area designated for future VWRP Stage VI expansion

- Provide a wastewater treatment and effluent management program that accommodates recycled water reuse opportunities in the community while protecting beneficial uses of the SCR

1.5 DOCUMENT ORGANIZATION

The Facilities Plan portion of this document consists of Sections 1 through 7. Section 1 provides an overview of SCVSD and defines the need for a project and the project's objectives. Sections 2 and 3 provide the regional and regulatory settings in the SCV. Section 4 provides a description of water and wastewater characteristics as well as projections for future wastewater management needs based on population forecasts. The existing SCVSD wastewater treatment facilities and effluent management system are described in Section 5. Section 6 describes the development, screening, and ranking of project alternatives. Finally, the recommended project is detailed in Section 7.

The EIR for the Facilities Plan consists of Sections 8 through 20 of this document. The EIR was prepared for SCVSD by Environmental Science Associates (ESA) in conformance with the CEQA.

The Facilities Plan and EIR were prepared in conformance with the State Water Resources Control Board's policy for implementing the Clean Water State Revolving Fund (SRF) Program for construction of wastewater treatment facilities (see Appendix 1-A).

References, report preparers, and a list of abbreviations are included in the Table of Contents. Supporting information is included as appendices.