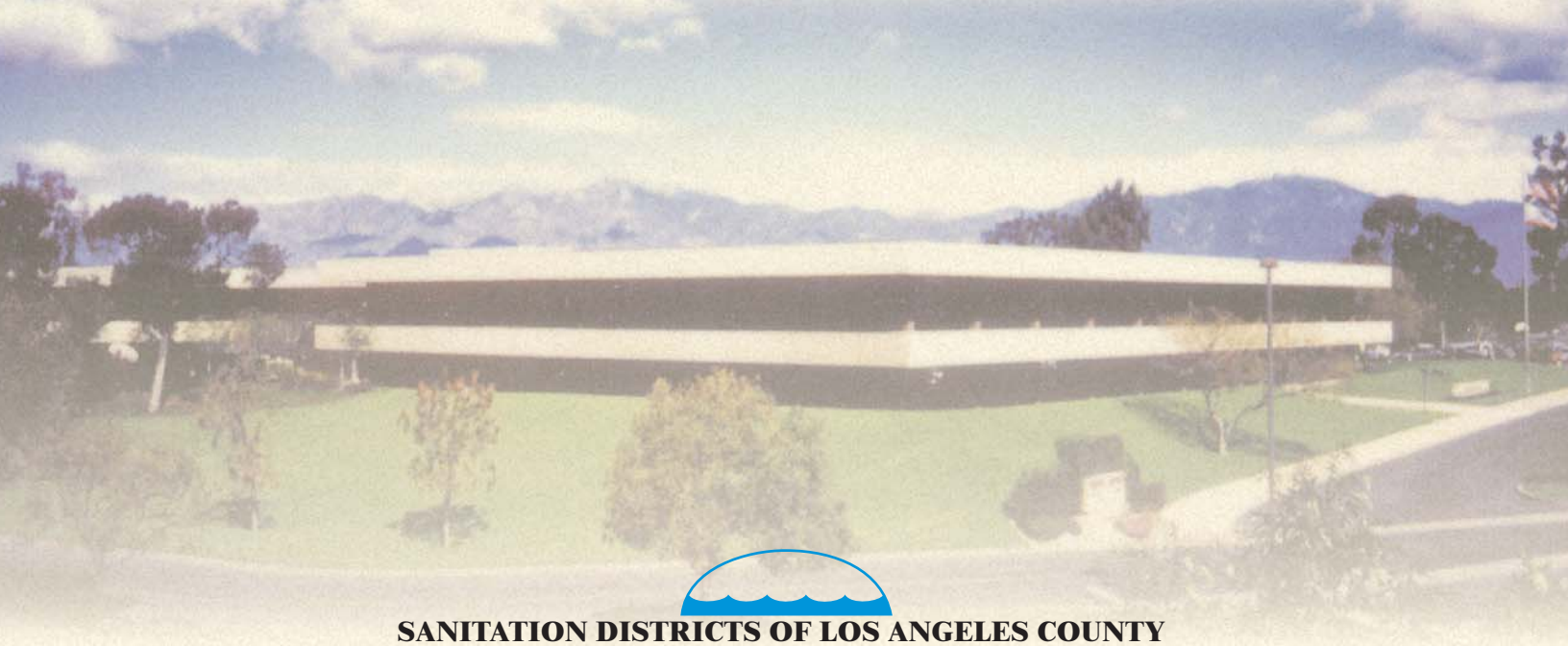

SANITATION DISTRICTS OF LOS ANGELES COUNTY

FINAL
MUNICIPAL SERVICE REVIEW
FOR THE
LOS ANGELES COUNTY SANITATION DISTRICTS

Prepared By

LSA

May 2005

LOS ANGELES COUNTY
LAFCO
LOCAL AGENCY FORMATION COMMISSION

FINAL

MUNICIPAL SERVICE REVIEW FOR THE LOS ANGELES COUNTY SANITATION DISTRICTS

LOS ANGELES COUNTY LOCAL AGENCY FORMATION COMMISSION

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TABLE OF CONTENTS

FIGURES AND TABLES

FIGURES

TABLES

APPENDIX

BOUNDARY AND SPHERE OF INFLUENCE MAPS

1.0 INTRODUCTION

This Municipal Service Review (MSR) has been prepared to assist the Los Angeles County Local Agency Formation Commission (LAFCO) in meeting the requirements of the Cortese/Knox/Hertzberg (CKH) Act, which requires LAFCO to update the spheres of influence for all applicable jurisdictions in the County. A sphere of influence is defined by Government Code 56425 as "…a plan for the probable physical boundary and service area of a local agency or municipality…" The Act further requires that an MSR be conducted prior to or in conjunction with the update of a sphere of influence.

This MSR has been prepared in accordance with Section 56430 of the California Government Code and in accordance with the Service Review Guidelines prepared by the State Office of Planning and Research. This MSR evaluates the public services provided by the 25 Los Angeles County Sanitation Districts (Districts).

BACKGROUND

In 1997, the State Legislature enacted Assembly Bill (AB) 1484, which established the Commission on Local Governance for the 21st Century. The Commission was responsible for assessing governance issues and making appropriate recommendations regarding the CKH Local Government Reorganization Act of 1985. Among other recommendations, the Commission suggested that each LAFCO should have knowledge of the services available within its county. This knowledge would assist in decision-making about city and district boundaries. The Commission stated that this knowledge should include the current efficiency of providing service, future service needs, and expansion capacity of the service providers. Additionally, "information on public service capacity could be gathered as part of the implementation of a new requirement for periodic service reviews. LAFCOs could conduct such reviews prior to or in conjunction with amendments to spheres of influence. A service review would encompass a comprehensive study of each identifiable public service provided by counties, special districts, and the cities in the region. The review would not focus exclusively on an individual jurisdiction to determine its future boundary or service areas. Rather, it would require LAFCO to look broadly at all agencies within a geographic region that provide a service" (*Growth within Bounds*, January 2000).

The State Legislature acknowledged the Commission's findings and created a legislative tool (as described in Section 56430 of the Government Code) to be used to collect information and evaluate service provision. On September 26, 2000, AB 2838 (Chapter 761, Statutes of 2000), authored by Assembly Speaker Robert M. Hertzberg, was signed into law. This legislation, the CKH Local Government Reorganization Act of 2000, marked the most significant reform to local government reorganization law since the 1963 statute that created a local agency formation commission in each California county. Section 56430 of the Government Code now requires that a review of the municipal services provided to the particular area be conducted in order to update any sphere of influence in accordance with Section 56425. LAFCOs must prepare a written statement of determinations for each agency with respect to each of the following:

1. Infrastructure needs or deficiencies
2. Growth and population projections for the affected area
3. Financing constraints and opportunities
4. Cost-avoidance opportunities
5. Opportunities for rate restructuring
6. Opportunities for shared facilities
7. Government structure options, including advantages and disadvantages of consolidation or reorganization of service providers
8. Evaluation of management efficiencies
9. Local accountability and governance

In conducting MSRs, LAFCOs must comprehensively review all of the agencies that provide the identified service or services within the designated geographic area. In addition, service reviews must be conducted no later than the time that a sphere of influence (SOI) is established or updated. The CKH Local Government Reorganization Act of 2000 also requires the LAFCO to update the SOIs for all applicable jurisdictions in the county by January 1, 2006.

As listed above, the CKH Act identifies nine factors to be addressed when conducting an MSR. For each factor, information is gathered and analyzed, with written determinations prepared for LAFCO's consideration. The following paragraphs list each factor and provide information about the required analysis.

DETERMINATION 1: INFRASTRUCTURE NEEDS AND DEFICIENCIES

Purpose: To evaluate the infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities, and service quality.

LAFCO is responsible for determining that an agency is reasonably capable of providing needed resources and basic infrastructure to serve areas within the agency's boundary and in any possible annexation areas. It is important that such findings of infrastructure and resource availability occur when revisions to the agency's sphere of influence occur, or, as in this case, during the mandated MSR. In the case of this MSR, it is prudent to evaluate the present and long-term infrastructure demands and resource availability of the jurisdiction. This is accomplished by evaluating: (1) the resources and services that are available, and (2) the expansion of such resources and services in line with increasing demands.

DETERMINATION 2: GROWTH AND POPULATION PROJECTIONS FOR THE AFFECTED AREA

Purpose: To evaluate service needs based upon existing and anticipated growth patterns and population projections.

The efficient provision of municipal services is linked to the ability to plan for future need. For example, existing and future levels of demand for services must be prepared to plan for the expansion of infrastructure and to be able to determine where future demand will occur. Growth and population projections data will allow for the verification that there is adequate capacity or supply to serve the existing and future residences and businesses and ensure that projections for future growth and population patterns are integrated into the planning function.

DETERMINATION 3: FINANCING CONSTRAINTS AND OPPORTUNITIES

Purpose: To evaluate a jurisdiction's capability to finance needed improvements and services.

LAFCO is responsible for evaluating the ability of the agency to pay for improvements or services associated with growth. The planning can begin at the SOI stage by: (1) identifying infrastructure and maintenance needs associated with future annexations and development, (2) identifying limitations on financing such improvements, and (3) identifying opportunities that exist to construct and maintain those improvements.

DETERMINATION 4: COST-AVOIDANCE OPPORTUNITIES

Purpose: To identify practices or opportunities that may help eliminate unnecessary costs.

LAFCO is responsible for evaluating cost-avoidance opportunities including but not limited to the following:

- Eliminating duplicative services
- Reducing high administration-to-operation cost ratios
- Replacing outdated or deteriorating infrastructure and equipment
- Reducing inventories of underutilized equipment, building, or facilities
- Redrawing overlapping or inefficient service boundaries
- Replacing inefficient purchasing or budgeting practices
- Implementing economies of scale
- Increasing profitable outsourcing

DETERMINATION 5: OPPORTUNITIES FOR RATE RESTRUCTURING

Purpose: To identify opportunities to impact rates positively without decreasing service levels.

When applicable, the MSR will review agency rates, which are charged for public services, to examine opportunities for rate restructuring without impairing the quality of service. Agency rates

will be analyzed for conditions that could affect future rates and variances among rates, fees, taxes, charges, etc., within an agency.

DETERMINATION 6: OPPORTUNITIES FOR SHARED FACILITIES

Purpose: To evaluate the opportunities for a jurisdiction to share facilities and resources to develop more efficient service delivery systems.

Public service costs may be reduced and service efficiencies increased if service providers develop strategies for sharing resources. Sharing facilities and excess system capacity decreases duplicative efforts, may lower costs, and minimizes unnecessary resource consumption. The MSRs will inventory facilities within the study area to determine whether facilities are currently being utilized to capacity and whether efficiencies can be achieved by accommodating the facility needs of adjacent agencies. Options for planning for future shared facilities and services will be considered.

DETERMINATION 7: GOVERNMENT STRUCTURE OPTIONS

Purpose: To consider the advantages and disadvantages of various government structures to provide public services.

The purpose of considering options for the structure of governance when reviewing a sphere of influence is to identify opportunities for increased efficiency in the provision of services, which lead to savings to both the service provider and the consumer. The MSR will provide a tool to study comprehensively existing and future public service conditions and to evaluate organizational options for accommodating growth and ensuring that critical services are efficiently and cost effectively provided.

DETERMINATION 8: EVALUATION OF MANAGEMENT EFFICIENCIES

Purpose: To consider the management structure of the jurisdiction.

Management efficiency refers to the effectiveness of an internal organization to provide efficient, high-quality public services. The MSR will evaluate management efficiency by analyzing agency functions, operations, and practices, as well as the agency's ability to meet current and future service demands. Services will be evaluated in relation to available resources and consideration of service provision constraints.

DETERMINATION 9: LOCAL ACCOUNTABILITY AND GOVERNANCE

Purpose: To evaluate the accessibility and levels of public participation associated with the agency's decision-making and management processes.

LAFCO is responsible for evaluating the degree to which the agency fosters local accountability. Local accountability and governance refers to public agency decision-making and operational and management processes that:

- Include an accessible and accountable decision-making body and agency staff

- Encourage and value public participation
- Disclose budgets, programs, and plans
- Solicit public input when considering rate changes and work and infrastructure plans
- Evaluate outcomes of plans, programs, and operations and disclose results to the public

Since existing law requires SOIs to be updated every five years and MSRs must be completed for SOI updates, MSRs should be updated at least every five years. Therefore, the planning horizon for this MSR will be five years from the adoption of the sphere updates in 2005.

The service areas of the County Sanitation Districts encompass most of the County, which is very large and diverse. All of the cities that are served by the Sanitation Districts have been divided into geographical areas for purposes of discussion and analysis within this MSR. These are the same geographical subregions that are used for analysis in SCAG's 2004 Regional Transportation Plan. The cities that encompass these geographical areas are listed in Table 1.A. In addition to these cities, the Sanitation Districts serves many unincorporated areas throughout the County.

Table 1.A: Cities Served by the Los Angeles County Sanitation Districts By Geographical Area

Area Name	Cities within Area		
North Los Angeles County	Lancaster	Palmdale	Santa Clarita
City of Los Angeles	Los Angeles (small portions of the City)		
Arroyo Verdugo	La Canada Flintridge		
San Gabriel Valley	Alhambra	Arcadia	Azusa
	Baldwin Park	Bradbury	Claremont
	Covina	Diamond Bar	Duarte
	El Monte	Glendora	Industry
	Irwindale	La Puente	La Verne
	Monrovia	Montebello	Monterey Park
	Pasadena	Pomona	Rosemead
	San Dimas	San Gabriel	San Marino
	Sierra Madre	South El Monte	South Pasadena
	Temple City	Walnut	West Covina
Westside Cities	Beverly Hills	Culver City	West Hollywood
South Bay Cities	Carson	El Segundo	Gardena
	Hawthorne	Hermosa Beach	Inglewood
	Lawndale	Lomita	Manhattan Beach
	Palos Verdes Estates	Rancho Palos Verdes	Redondo Beach
	Rolling Hills	Rolling Hills Estates	Torrance
Gateway Cities	Artesia	Bell	Bellflower
	Bell Gardens	Cerritos	Commerce
	Compton	Cudahy	Downey
	Hawaiian Gardens	Huntington Park	La Habra Heights
	Lakewood	La Mirada	Long Beach
	Lynwood	Maywood	Norwalk
	Paramount	Pico Rivera	Santa Fe Springs
	Signal Hill	South Gate	Whittier
	Vernon		

2.0 ADMINISTRATION

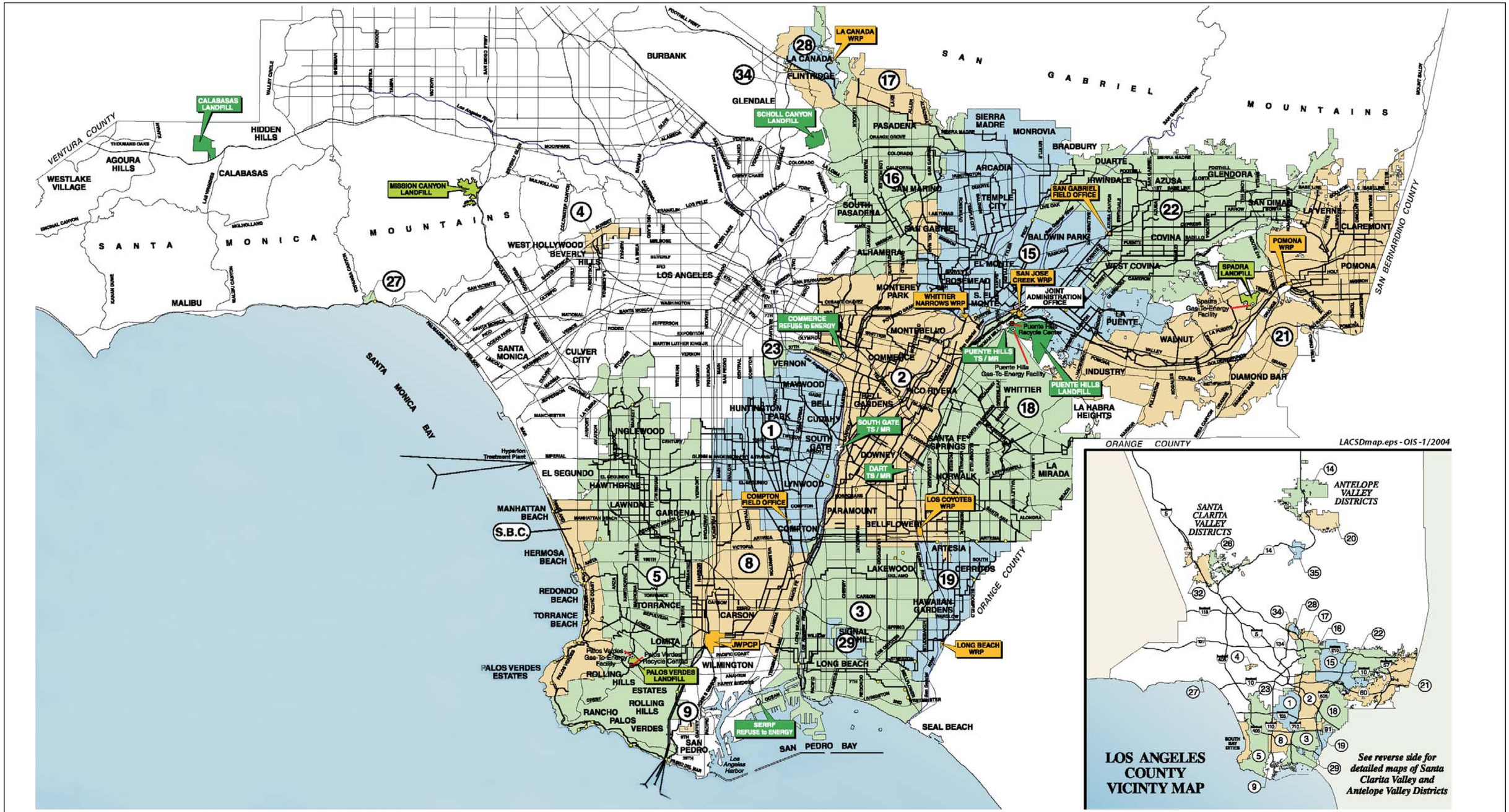
2.1 OVERVIEW OF SERVICES

The Los Angeles County Sanitation Districts are a confederation of 25 independent separate special districts that work cooperatively under a Joint Administration Agreement with one administrative staff. Because the Districts share staff and many of the same financial and operating policies and procedures, they are, at times, referred to as one entity within this MSR. The Districts provide solid waste and wastewater management services. In provision of wastewater services, the Districts construct, operate, and maintain regional facilities to collect, treat, recycle, and dispose of sewage and industrial wastes. For the provision of solid waste services, the Districts provide facilities for disposal, transfer operations, and materials recovery. To clarify service provision responsibilities, local sewers and laterals, which connect to the Districts' trunk sewer lines, are the responsibility of the local jurisdictions. In unincorporated areas, the Los Angeles County Department of Public Works operates and maintains the local sewers through the Consolidated Sewer Maintenance District. Likewise, solid waste collection is the responsibility of the local jurisdiction, and the Districts provide the regional disposal and transfer facilities. For example, the City of Montebello is responsible for the provision of local sewer lines and the management of wastewater flows, which connect to the Districts' regional trunk sewers that deliver wastewater to the Districts' regional treatment plants. Similarly, the City of Montebello is responsible for solid waste collection and transportation, which may be disposed of in the Districts' regional landfills, transfer stations, and recycling facilities.

The Districts' combined service area covers approximately 800 square miles and encompasses 78 cities and unincorporated territories within Los Angeles County (County), as shown on Figures 2.1 and 2.2. The Districts have over 1,800 employees and serve approximately 5.1 million residents within Los Angeles County. Table 2.A details the size and population within each District. Table 2.B provides detail regarding the number of residential, commercial, industrial, and institutional wastewater customers within each District. For the wastewater system, the number of residential and commercial users is based on the number of parcels; each parcel is considered one customer and each industrial discharge is considered one customer. For the solid waste facilities, the number of customers is based on the number of vehicles that unload waste at the various solid waste disposal facilities, transfer stations, material recovery facilities, or recycling centers. As detailed within these tables, the largest Districts, in terms of geographical area, population, and number of customers, are Districts 2, 5, 15, and 21.

2.2 MANAGEMENT

Each District is governed by an independent board comprised of elected officials from each of the District's areas. The 25 Districts are jointly managed under a Joint Administration Agreement, with one administrative staff headquartered in the City of Whittier. Each District pays for its proportionate share of joint administrative costs. This agreement results in a large cost savings for all of the Districts in that it provides for the consolidation of responsibilities and maximizes common resources. The result is a large integrated system that serves many communities that might have otherwise had to



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SOURCE: Sanitation Districts of Los Angeles County

LEGEND

- SANITATION DISTRICT NUMBER (2)
- JOINT ADMINISTRATION OFFICE *(JAO)*
- MAIN TRUNK SEWERS
- PUMPING PLANTS
- WATER RECLAMATION PLANTS *(WRP)* MAINTENANCE FACILITIES and JOINT WATER POLLUTION CONTROL PLANT *(JWPCP)*
- CLOSED SANITARY LANDFILLS
- OPEN SANITARY LANDFILLS
- GAS-TO-ENERGY FACILITIES
- REFUSE-TO-ENERGY FACILITIES
- RECYCLING CENTERS
- RESOURCE TRANSFER STATION / MATERIALS RECOVERY FACILITY (TS / MR)

FIGURE 2.1

LA LAFCO MSR

Overview of Los Angeles County Sanitation Districts' Boundaries and Facilities within the Greater Los Angeles Area

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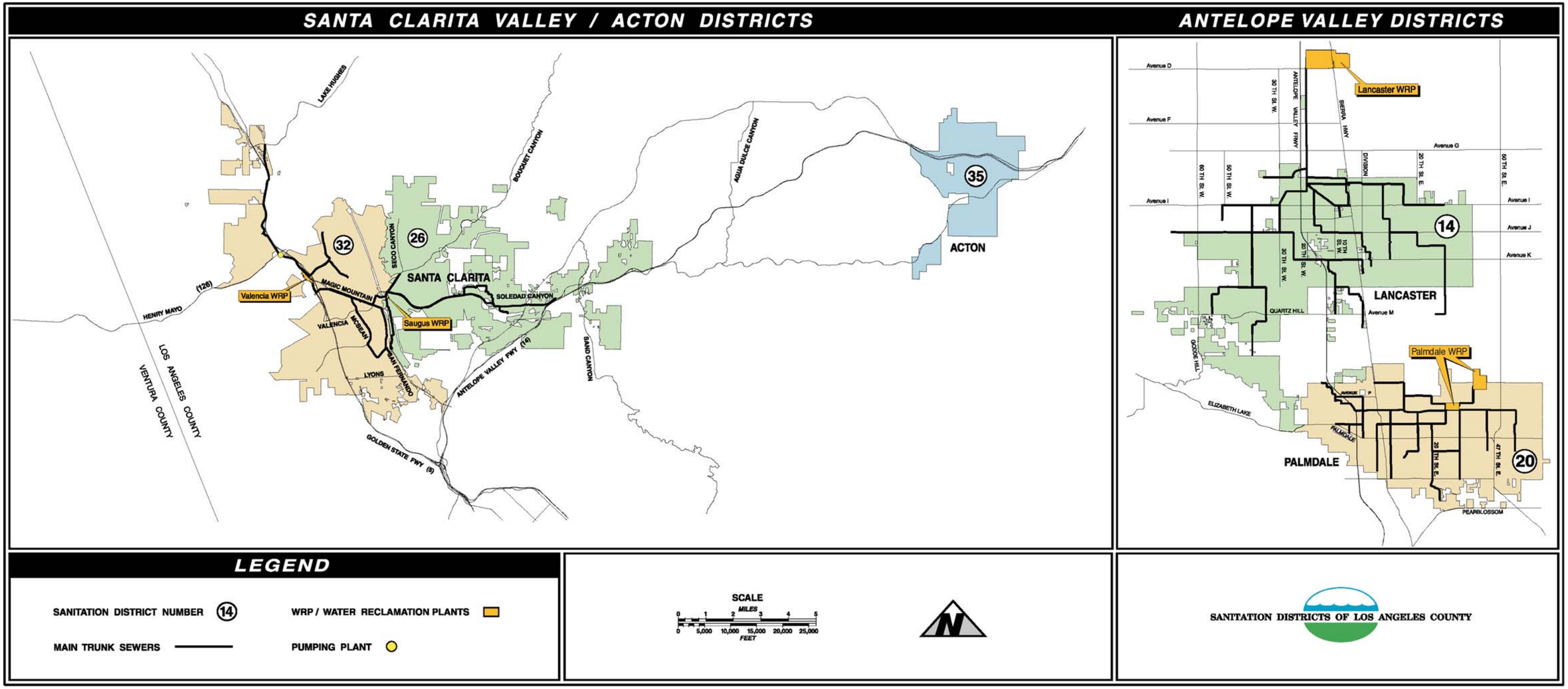

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FIGURE 2.2

LA LAFCO MSR

Overview of Los Angeles County Sanitation Districts' Boundaries and Facilities within the Santa Clarita Valley and Antelope Valley Areas

SOURCE: Sanitation Districts of Los Angeles County

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Table 2.A: Los Angeles County Sanitation Districts' Demographics in 2003

District	Area		Population
	Acres	Square Miles	
1	26,585	42	513,905
2	48,663	76	625,183
3	33,319	52	478,944
4	1,239	2	36,747
5	56,271	88	674,091
8	19,876	31	133,495
9	138	0	1,413
14	29,118	45	135,387
15	49,603	78	568,618
16	23,866	37	263,436
17	4,900	8	48,788
18	38,454	60	312,265
19	9,127	14	124,812
20	20,640	32	97,019
21	52,427	82	403,945
22	40,225	63	327,214
23	1,619	3	68
26	16,222	26	87,630
27	153	0	1,336
28	2,635	4	10,617
29	1,410	2	9,863
SBC	9,451	15	109,327
32	17,648	27	63,141
34	2,524	4	9,778
35	6,681	10	13,916
Total	512,794	801	5,050,938

Source: LA County Sanitation Districts, 2004. Population data is derived by the Districts utilizing 2002-03 California Department of Finance statistics.

Table 2.B: Los Angeles County Sanitation Districts' Wastewater Customer Base in 2003

District[1]	No. of Residential Customers (parcels)	No. of Commercial Customers (parcels)	No. of Institutional Customers (parcels)	No. of Industrial Customers (Accounts)	Total No. of Wastewater Customers
1	82,701	6,808	600	137	90,246
2	115,627	9,380	513	199	125,719
3	101,510	4,933	300	55	106,798
4	8,305	727	25	4	9,061
5	141,859	7,872	493	125	150,349
8	32,039	2,672	94	151	34,956
9	400	30	5	0	435
14	37,922	1,141	93	10	39,166
15	115,971	7,078	382	138	123,569
16	60,236	3,330	329	20	63,915
17	12,434	325	36	0	12,795
18	79,895	3,700	220	113	83,928
19	27,005	484	57	3	27,549
20	25,599	530	52	2	26,183
21	96,514	3,677	256	86	100,533
22	77,547	3,211	205	63	81,026
23	5	478	1	51	535
26	30,156	260	21	5	30,442
27	539	1	0	0	540
28	1,524	109	9	0	1,642
29	2,614	558	2	5	3,179
SBC	35,851	1,096	72	3	37,022
32	26,407	882	33	19	27,341
Total	1,112,660	59,282	3,798	1,189	1,176,929

Source: LA County Sanitation Districts, 2004

[1] District Nos. 34 and 35 are inactive and have no customers.

resort to smaller and more expensive individual wastewater and solid waste systems, in addition to having to provide administrative and technical staffing. The organizational structure is also efficient because it allows the Districts to do in-house design with direct input from the operations group.

Each Sanitation District has a separate Board of Directors that consists of the presiding officer (generally the Mayor) of each city within that District and the Chair of the Board of Supervisors for unincorporated areas. Each Board of Directors has a minimum of three members. In Districts that have only two jurisdictions, a third Director is appointed from the jurisdiction with the greater population. In Districts located within one jurisdiction (whether it be a single city or solely unincorporated areas of the County), either the members of the City Council or the Board of Supervisors, as applicable, serve as the Board of Directors.

The Districts are required to comply with federal, State, and local regulatory agencies' requirements. The Districts work in cooperation with the regulatory agencies to ensure that reasonable discharge standards are enacted and that the Districts will be able to remain in full compliance. Each of the Districts' facilities have one or more operating permits that require the monitoring of operations and an assessment of compliance with the applicable standards. The Districts' monitoring sections are responsible for preparing the compliance reports and preparing corrective action plans, if needed. The regulatory agencies that the Districts are required to report to are listed below:

- Regional Water Quality Control Boards (RWQCB): Los Angeles Region, and Lahontan Region (regarding respective wastewater facilities)
- California Integrated Waste Management Board
- Southern California Air Quality Management District
- Los Angeles County
- City of Glendale (regarding Scholl Canyon Landfill)
- Los Angeles County Department of Health Services
- Los Angeles County Fire Department
- California Department of Toxic Substances Control
- City of Downey (regarding DART facility)
- City of Rolling Hills Estates (regarding Palos Verdes solid waste facilities)
- United States Department of the Interior, National Park Service
- United States Department of the Interior, Fish and Wildlife Services
- State of California Department of Fish and Game
- United States Army Corps of Engineers
- City of Los Angeles (regarding Districts 4, 9, 27)
- City of Pomona (regarding Spadra Gas to Energy Facility)
- Imperial County (regarding Eagle Mountain Landfill)
- Imperial County Air Pollution Control District (regarding Eagle Mountain Landfill)

The Districts have earned numerous awards and noteworthy achievements from local, State, and federal organizations. These awards and recognitions are indicative of efficient and well-managed provision of service. Table 2.C lists the Districts awards from 1984 through the present.

Table 2.C: Sanitation Districts of Los Angeles County Awards

Date	Award	Organization
1984	George W. Burke Jr. Facility Safety Award	Water Environment Federation
1984	Certificate of Conformance in Financial Reporting	Government Finance Officers Association
1985–1994	Certificate of Achievement for Excellence in Financial Reporting	Government Finance Officers Association
1987	Environmental Protection Award, Commerce Refuse-to-Energy Facility	Board of Editors "POWER" Magazine
1988	National 2nd Place Operating Project Award for Windrow Composting (Outstanding project involving and enhancing beneficial use of municipal wastewater sludge)	U.S. Environmental Protection Agency
1989	Honor Award-Operations/Management Category, Excellence in Environmental Engineering Competition, "Modern Metropolitan Landfill" (Puente Hills Landfill)	American Academy of Environmental Engineers
1990	Grand Prize-Operations/Management Category Excellence in Environmental Engineering Competition, "Water for a Dry Land" (District's Water Reuse System)	American Academy of Environmental Engineers
1990	Excellence Award (< 500 tons per day capacity) Commerce Refuse-to-Energy Facility	Solid Waste Association of North America
1990	Grand Prize, 21st Annual Engineering Excellence Awards: Kenwards Oliphant Memorial Awards, The Palos Verdes Landfill Gas-To-Energy Facility	Consulting Engineers Association of California
1991	Excellence Award (> 1,500 tons per day category) Puente Hills Landfill	Solid Waste Association of North America
1991	Grand Prize: Operations/Management Category, Excellence in Environmental Engineering Competition, "Commerce Refuse-to-Energy Facility"	American Academy of Environmental Engineers
1992	Excellence Award for Environmental Education, "Think Earth"	Solid Waste Association of North America
1992	Research Achievement Award	California Water Environment Association
1992	President's Environment and Conservation Challenge Award "Think Earth"	President Bush
1992	Clean Air Award for Excellence in Public Education on Air Quality Issues "Think Earth"	South Coast Air Quality Management District

Date	Award	Organization
1993	Conservation Award, San Jose Creek Water Reclamation Plant Stage 3 (Award for efforts to conserve electricity)	Southern California Edison Company
1993	National First Place Award for Outstanding Research Contributing to Enhanced Beneficial Use of Municipal Wastewater Sludge "In-Vessel Composting"	U.S. Environmental Protection Agency
1993/94/95/ 1997	1st Place: Operations Challenge, Joint Water Pollution Control Plant "Wrecking Crew" (State and national competitions for wastewater treatment plant operators)	California Water Environment Association Water Environment Federation
1994	Facility Recognition Award, Commerce Refuse-to-Energy Facility	American Society of Mechanical Engineering
1994	Clean Air Award, "Clean Fuels From Landfill Gas"	South Coast Air Quality Management District
1994	Governor's Environmental and Economic Leadership Award for Innovation "Clean Fuels From Landfill Gas"	Governor Pete Wilson, California Environmental Protection Agency
1994	Honor Award-Operations/Management Category-Excellence in Environmental Engineering Competition "Clean Fuels From Landfill Gas"	American Academy of Environmental Engineers
1994	Governor's Environmental and Economic Partnership Award (in conjunction with Central Basin Municipal Water District) "Century and Rio Hondo Water Reclamation Projects"	Governor Pete Wilson, California Environmental Protection Agency
1995	National First Place Award "Outstanding Industrial Water Pretreatment Program (> 100 Significant Industrial Users)"	U.S. Environmental Protection Agency
1995	Grand Prize: Operations/Management Category, Excellence in Environmental Engineering Competition, "After the Shock" (District's response to damage caused by the Northridge earthquake)	American Academy of Environmental Engineers
1996	National Second Place Award "Biosolids Beneficial Use Award (> 5 mgd)"	U.S. Environmental Protection Agency
1997	Chapter Award: Solid Waste Management "Puente Hills Landfill Expansion - Composite Liner and Slope Stabilization"	Southern California Chapter, American Public Works Association
1997	Chapter Award: Wastewater "Chlorine Containment and Treatment Facility"	Southern California Chapter, American Public Works Association
1998	Honor Award: Operations/Management Category-Excellence in Environmental Engineering Competition, "Control of Corrosion in the Pure Oxygen Secondary Treatment Process"	American Academy of Environmental Engineers

Date	Award	Organization
1999	Honor Award: Operations/Management Category-Excellence in Environmental Engineering Competition, "Innovative and Diverse Biosolids Management"	American Academy of Environmental Engineers
1999	1999 National Environmental Achievement Award: Research and Technology Category "Development of a Biotrickling Filter to Remove Hydrogen Sulfide"	Association of Metropolitan Sewerage Agencies
1999	Wastewater Treatment Plant Safety Awards for Joint Water Pollution Control Plant (JWPCP) (> 75 employees), Valencia Water Reclamation Plant (WRP) (26–75 employees), and Los Coyotes WRP (small plant)	Los Angeles Basin Section of CWEA
2000	Honor Award: Operations/Management Category-Excellence in Environmental Engineering Competition, "Operation and Maintenance of Ocean Outfalls"	American Academy of Environmental Engineers
2000	Platinum Award: JWPCP (five consecutive years of no permit violations)	Association of Metropolitan Sewerage Agencies
2001	Water Quality Award: Public Education in Water Quality, "Think Earth"	California RWQCB
2001	Grand Prize-Operations/Management Category, Excellence in Environmental Engineering Competition, "Energy Resource Management"	American Academy of Environmental Engineers
2001	First Place: Public Service Category, "Energy Wise" ad in San Gabriel Valley Tribune, CNAEA annual competition	California Newspapers Advertisers Executive Association (CNAEA)
2001	Governor's Environmental and Economic Leadership Award for Children's Environmental Education, "Think Earth—Air Care Environmental Education Program"	Governor Gray Davis, California Environmental Protection Agency
2001	National Pollution Prevention Award	California Environmental Protection Agency, Department of Toxic Substances Control
2001	First Place: Most Valuable Pollution Prevention Award, "Lindane Usage Reduction Program"	National Pollution Prevention Roundtable
2001	Environmental Achievement Award: "Lindane Usage Reduction Program"	California Environmental Protection Agency, Southwest Region
2002	Grand Prize: Planning Category, Excellence in Environmental Engineering Competition, "On Track To Solving The Solid Waste Disposal Dilemma"	American Academy of Environmental Engineers
2002	National Public Works Week Award, "Community Outreach Program for Repermitting the Puente Hills Landfill"	America Public Works Association, So. California Chapter

Date	Award	Organization
2003	Platinum Best of Show: Environmental Protection and Public Relations/ Awareness Categories, "The Truck Stops Here" (Puente Hills Landfill Video)	Aurora Awards
Numerous years	Treatment Plant of the Year Award	California Water Environment Association
Numerous years	Gold and Silver Awards (These awards reflect very few to no violations of treatment plant discharge requirements during the year)	Association of Metropolitan Sewerage Agencies

2.3 BUDGET/REVENUE/FINANCIAL

The Districts are financially separate from each other. The joint administrative staff prepares an annual operating budget for each District, which is adopted by the respective Board of Directors. Each District's budget consists of three major categories: operation and maintenance, capital, and debt service. Operation and maintenance budget estimates are prepared each year by the Districts' staff. Debt service consists of the annual interest and principal payment on both bonds and State Revolving Fund (SRF) loans. Each year, each of the Districts' Board of Directors is presented with a preliminary budget and projected service charge rates. If a rate increase is recommended, a public hearing is held and the Board sets the service charge rates by ordinance. In June, each Board is presented with a proposed budget for consideration and approval. The Districts' combined overall budgets for wastewater and solid waste management for 2004–2005 are $594 million and $222 million, respectively. The Districts have proven efficient and effective in their financial budgeting; for 18 years in a row, the Government Finance Officers Association of the United States has awarded the Districts a Certificate of Achievement for Excellence in Financial Reporting.

The Districts' revenue is primarily derived from wastewater service charges, industrial waste surcharges, and solid waste tipping fees. These fees and charges account for over 80 percent of the Districts' operating revenue. The Districts also receive revenue from Ad Valorem Taxes, which is the pro rata share of the 1 percent property tax levied by the County. In addition, the Districts generate revenue from the sale of reclaimed water, biosolids, excess energy that is produced at JWPCP, and leased properties that are not currently needed for the Districts' operations.

The Districts currently have a cumulative total of over $525 million in revenue bonds, general obligation bonds, and outstanding loans, which are a result of financing capital projects and upgrades. The bonds have been rated AA by Standard & Poor's Corporation and Aa by Moody's Investor Service. The Districts have aggressively pursued funding for capital construction projects through the SRF loan program because it is the most effective means of financing projects. Under the SRF program, the State loans wastewater agencies funding for construction projects at an interest rate equal to one-half of the State's current general obligation bond rate.

The Districts' financial policy, which is the same for each District, provides that costs related to additional infrastructure resulting from growth should be borne by new users. Therefore, all of the Districts have implemented a Master Connection Fee Ordinance establishing connection fees. The Districts' Boards of Directors review connection fees annually. Increases are implemented

periodically based on the incremental cost of expansion of all facilities. This fee is levied before a sewer permit is issued.

2.4 PUBLIC PARTICIPATION

Each District holds regularly scheduled public meetings. The list below provides the regularly scheduled days of each of the Board of Director's meetings.

- District Nos. 1, 3, 8, 19, 23, 26, 29, and 32 meet monthly on the second Wednesday
- District Nos. 5 and South Bay Cities meet monthly on the third Wednesday
- District Nos. 14, 15, 16, 18, 20, 21, 22, and 28 meet monthly on the fourth Wednesday
- District No. 4 meets on the second Wednesday of February, June, September, and December
- District Nos. 9, 17, and 34 meet on the fourth Wednesday of February, June, September, and December
- District Nos. 27 and 35 meet on the second Tuesday of February, June, September, and December
- District No. 2 meets twice monthly on the second and fourth Wednesdays

The Districts have several different methods of disseminating information about the Districts' activities and encouraging public participation. General information is posted on the Districts' Web site, which is updated regularly. One Web site that is maintained by the joint administrative staff provides information regarding all of the Districts, all of the facilities, and all of the services provided. The Districts also have a speaker program to provide information to civic and school groups. Each of the Districts participate in Citizen Advisory Committees, as issues arise, to discuss activities that are related to specific facilities. Facility plans and associated environmental documents are widely circulated to governmental agencies, citizen's groups, and public libraries. As required under Proposition 218, public hearings that are associated with rate increases are noticed by individual mailers that are sent to each impacted property owner. In addition, the Districts publish many different educational pamphlets and brochures that provide information about both the Districts' facilities and programs.

Customer complaints are addressed by the Districts' administrative staff in various forms. In time-sensitive issues, such as a sewage spill, problems can be reported to the administrative office via telephone. Less time-dependent issues can also be addressed by the customer or resident by mail. Customer claims for reimbursements must be submitted using the appropriate forms.

2.5 COOPERATIVE AGREEMENTS

The Districts' current cooperative agreements are extensive and encompass most of the facilities, services, equipment, and personnel that the Districts utilize to provide services. These cooperative agreements are listed below.

- Joint Administration Organization: An agreement between the 25 Sanitation Districts for the joint administration and staffing of all signatory members; provides cost savings through an economy of scale and avoidance of duplicate staffing.
- Seventeen of the Districts are party to a Joint Outfall Agreement, which provides for a regional interconnected system of facilities. Within this agreement, 17 Districts jointly own, operate, and maintain sewers, pumping plants, treatment plants, and other facilities that are collectively called the Joint Outfall System (JOS). These participating Districts are listed in Table 2.D.

Table 2.D: Participating Districts in the Joint Outfall Agreement

1	2	3	5	8	15
16	17	18	19	21	22
23	28	29	34	South Bay Cities	

- Sanitation District Nos. 4, 9, and 27 and portions of 5 and 16 are served by the City of Los Angeles through contracts. Wastewater from these Districts is treated at the following City of Los Angeles treatment plants: Hyperion, Terminal Island, and Malibu. Under this contract, each District pays for its proportionate share of the costs, operations, and capital improvements based on usage of the facilities.
- Joint Santa Clarita Valley Sewerage System: An agreement between District Nos. 26 and 32 for the joint ownership and operation of a regional wastewater conveyance, treatment, and disposal system provides cost savings through an economy of scale and avoidance of duplicate staffing and facilities.
- Los Angeles County Sanitation Districts Financing Authority: An agreement between all active Districts for the purpose of issuing bonds provides a cost savings by increasing the collective bond rating of the member Districts and avoidance of duplicate costs of issuance.
- Inland Empire Regional Composting Authority: An agreement between the Districts and the Inland Empire Utilities Agency to construct and operate an enclosed biosolids composting facility provides cost savings through an economy of scale.
- Sanitation Districts Solid Waste Management System: An agreement between District Nos. 1, 2, 3, 5, 8, 15, 16, 17, 18, 19, 21, 22, 23, 29, and South Bay Cities (Districts that provide solid waste facilities) for the joint ownership and operation of facilities provides cost savings through an economy of scale and avoidance of duplicate staffing. District 2 provides administrative service for all of the Solid Waste Districts. District 2 sets rates, purchases equipment, and signs agreements on behalf of the Solid Waste Districts.
- Palos Verdes, Mission Canyon, and Calabasas Landfill Systems: Agreements between the respective Districts and Los Angeles County providing for the Districts' operation and continued maintenance of the respective landfill sites provides cost savings through an economy of scale and avoidance of duplicate staffing by utilizing the Districts' expertise.
- Scholl Canyon Landfill System: An agreement between the Districts, Los Angeles County, and the City of Glendale providing for the Districts' operation and continued maintenance of the Scholl Canyon Landfill provides cost savings through an economy of scale and avoidance of duplicate staffing by utilizing the Districts' expertise.

- Spadra Landfill and Resource Conservation Agreement: An agreement between the Districts, Los Angeles County, and California State Polytechnic University, Pomona (Cal Poly) to develop a master plan for the Spadra Landfill site and for use of Cal Poly property by the Districts provides a benefit by having a coordinated master plan that considers the needs of all impacted parties.
- Commerce Refuse-to-Energy Authority: An agreement between the Districts and the City of Commerce for the ownership and operation of a refuse-to-energy facility provides a benefit by diverting refuse away from landfills and a cost savings through the sale of energy produced by the facility.
- Southeast Resource Recovery Facility Authority: An agreement between the Districts and the City of Long Beach for the ownership and operation of a refuse-to-energy facility provides a benefit by diverting refuse away from landfills and a cost savings through the sale of energy produced by the facility.
- Solid Waste Resources Complexes: An agreement between the Districts and the City of Los Angeles for the joint development of facilities to accept, process, and transfer certain categories of solid waste and recyclables provides cost savings by avoiding duplicate efforts on the part of both agencies and economies of scale.
- Puente Hills Landfill Native Habitat Preservation Authority: An agreement between the Districts, Los Angeles County, the City of Whittier, and the Hacienda Heights Homeowners Association to purchase and preserve natural areas in the vicinity of the Puente Hills Landfill as mitigation for landfill expansion.

2.6 COST CONTROL/RATES

The Districts implement several cost control policies and practices, which allow for the provision of service at competitive rates. Several specific examples are listed below.

- The Districts have developed a low-cost biological odor control treatment process that minimized the need to purchase and handle chemicals. This process has proven very effective and will be implemented in new odor control systems at the Joint Water Pollution Control Plant (JWPCP).
- The tax code provides advantages to private companies that are not available to public entities. Therefore, to obtain financial benefits of tax credits available by using the landfill gas (unconventional fuel), the Districts have transferred ownership of the gas collection and recovery facilities to a private company. Through this transaction, the Districts will receive approximately $37 million, plus interest, by the year 2008.
- The Districts have adopted a Uniform Purchasing Policy that delineates the purchasing standards that the Districts follow.
- The Districts have adopted an Investment Policy, which considers safety the primary objective, while maintaining liquidity and a competitive yield.

Each District has adopted a Master Service Charge Ordinance that established a rate structure. It is important to note that all local government facilities are exempt from service charges. In addition to service rates, connection fees are charged to users who are either connecting to the sewer system for the first time or who are significantly increasing their level of discharge. The charge is designed such

that each user pays a "fair share" based on the amount of discharge. As mentioned previously, each District's Board of Directors annually reviews its preliminary budget, assesses forthcoming financial needs, and then recommends new rates, as needed. If a rate increase is recommended, a public hearing is held, the proposed rates are reviewed by the Directors, and then the Board sets the service charge rates by ordinance.

The Districts have prided themselves on providing reliable service at inexpensive rates. While the Districts have maintained some of the lowest rates in the Country (Table 2.F), all of the treatment facilities have remained in full compliance with their discharge requirements. Although service charge increases will be required (and are planned), the Districts should continue to be able to maintain low rates in comparison with other agencies throughout the country. Table 2.E below is a summary of historical and projected wastewater service charge rates in each of the Districts. To help put these rates in perspective, Table 2.F provides wastewater service charges of other similarly sized sewage agencies that provide the same level and type of service. Additionally, Table 2.G provides the service rates for all of the Districts' solid waste facilities through 2007, and Table 2.H provides the 2005 solid waste rates for the facilities within Orange and San Bernardino Counties. As shown, solid waste facility rates within the three counties are very similar.

The Districts' on-going cost control policies have allowed both wastewater connection fees and service charge rates to remain stable. In 2001–2002, the rates for the Santa Clarita Valley and Antelope Valley Districts (14, 20, 26, and 32) remained unchanged for the ninth consecutive year. Also in 2001–2002, the rates in Districts 4 and 9, which contract with the City of Los Angeles for wastewater services, remained the same, after having been decreased in the previous year to reflect the savings from a new contract. The exception in 2001–2002 was District 28, which was in the second year of a phased two-year service charge increase. In addition, during fiscal year 2001–2002, the solid waste user fees were increased slightly at three disposal sites and at one transfer station to reflect increases in State and local fees.

Long-term rate projections for the Joint Outfall Districts indicate that increases in service charge rates will be necessary in the near future. However, because of regulatory uncertainties (more stringent requirements), the JOS Districts (as listed in Table 2.D) felt it was prudent to postpone any rate increases until regulation changes have been completed. Similar concern applies to District Nos. 26 and 32 relating to the discharge of chloride to the Santa Clara River. Likewise, District 14's 2020 Facilities Plan recommendations, which are detailed in Section 4.1.1, will result in service charge rate increases. However, it should be noted that although a significant increase is projected as a result of the cost of the recommended expansion project, the projected future rate is equal to the median rate charged in 2002 by all communities in California.

In addition, in order to be able to finance implementation of the waste-by-rail program, as detailed in Section 4.2.2, despite the cost of transportation, the Districts have proposed generating revenue through a series of incremental increases to the tipping fee at the Puente Hills Landfill and the Materials Recycling Facility (MRF), which would be approximately $1.50 to $2.00 per ton per year.

Table 2.E: Districts' Historical and Adopted Wastewater Service Charge Rates (Dollars Per Single-Family Home Per Year)

Dist. (JO)[1]	Fiscal Year 2000–2001	Fiscal Year 2001–2002	Fiscal Year 2002–2003	Fiscal Year 2003–2004[2]	Fiscal Year 2004–2005	Fiscal Year 2005–2006	Fiscal Year 2006–2007	Fiscal Year 2007–2008
1	$87	$87	$87	$87	$94.25	$101.50	$108.75	$116
2	85	85	85	85	91.50	98	104.50	111
3	84	84	84	84	91	98	105	112
5	83	83	83	83	87.25	91.50	95.75	100
8	79	79	79	79	84	89	94	99
15	83	83	83	83	88	93	98	103
16	86	86	86	86	91	96	101	106
17	87	87	87	87	92	97	102	107
18	82	82	82	82	89.50	97	104.50	112
19	85	85	85	85	91.25	97.50	103.75	110
21	83	83	83	83	89.50	96	102.50	109
22	86	86	86	86	92.75	99.50	106.25	113
23	61	61	61	61	67	73	79	85
28[3]	308	308	308	308	308	-	-	-
28[3]	90	100	100	100	100	-	-	-
29	95	95	95	102	115.25	128.5	141.75	155
SBC	84	84	84	84	86	88	90	92
(NON-JO)[4]								
4	150	150	150	150	150	-	-	-
9	78	78	78	78	78	-	-	-
14	67	67	67	67	98	129	160	-
20	71	71	71	71	101	131	161	-
26	110	110	110	114	118	122	-	-
32	113	113	113	116	119	122	-	-

Source: Los Angeles County Sanitation Districts Financing Authority Capital Projects Revenue Bonds, 2003 Series A
Notes: Districts 4, 9, and 28 have not adopted rates after fiscal year 2004–2005; Districts 26 and 32 have not adopted rates after fiscal year 2005–2006; Districts 14 and 20 have not adopted rates after 2006–2007.

1 JO indicates Joint Outfall.

2 Rates for fiscal year 2003–2004 have been adopted by the respective Boards of Directors.

3 Beginning in fiscal year 1999–2000, District No. 28 had two service charge rates. The first rate is for those users directly connected to the La Cañada Outfall Trunk Sewer or the Foothill Main Trunk Sewer or tributary to the La Cañada WRP; the second is for those users within a City of La Cañada Flintridge Assessment District.

4 District No. 27 does not have any service charge rate in effect, as its other revenues have been sufficient to meet expenses. District No. 27 does have a Master Service Charge Ordinance in place should the need for a service charge arise.

Table 2.F: Annual Wastewater Service Charge Rates in Various Metropolitan Centers in the United States
($ Per Year Per Single-Family Home)

Agency	Service Charge
Joint Outfall System	$130[1]
Los Angeles	240
Houston	258
Denver	302
Dallas	377
Miami	378
Seattle	398
San Diego	413

Source: Los Angeles County Sanitation Districts Financing Authority Capital Projects Revenue Bonds, 2003 Series A

[1] Average Joint Outfall System service charge ($84), plus pro rata share of ad valorem taxes ($16), plus local city sewer maintenance charge ($30).

Table 2.G: Los Angeles County Sanitation Districts Schedule of Rates for Solid Waste Materials Recovery, Transfer, and Disposal Facilities

FACILITY	RATES ($)		
	January 1, 2005	January 1, 2006	January 1, 2007
PUENTE HILLS LANDFILL, Whittier[1,2]			
Municipal Solid and Inert Waste	$22.65/ton	$24.42/ton	$26.19/ton
Hard-to-Handle, Bulky Items	29.80/ton	31.57/ton	33.34/ton
Tires	54.55/ton	60.72/ton	66.89/ton
Special Handling	44.65/ton	46.42/ton	48.19/ton
Minimum Charge	21.50 per load	23.25 per load	25.00 per load
Pull-Offs	27.50 each	27.50 each	27.50 each
Segregated Uncontaminated Green Waste (one-ton minimum charge)	12.10/ton	12.10/ton	12.10/ton
PUENTE HILLS MATERIALS RECOVERY FACILITY (MRF), Whittier[1]			
Municipal Solid and Inert Waste	22.65/ton	24.42/ton	26.19/ton
Hard-to-Handle, Bulky Items	29.80/ton	31.57/ton	33.34/ton
Minimum Charge	21.50 per load	23.25 per load	25.00 per load
SOUTH GATE TRANSFER STATION, South Gate[1]			
Municipal Solid and Inert Waste	34.77/ton	36.54/ton	38.31/ton
Hard-to-Handle, Bulky Items	41.27/ton	43.04/ton	44.81/ton
Minimum Charge	22.00 per load	23.75 per load	25.50 per load
DOWNEY AREA RECYCLING & TRANSFER FACILITY (D.A.R.T.), Downey[1]			
Municipal Solid and Inert Waste	38.54/ton	40.31/ton	42.08/ton
Hard-to-Handle, Bulky Items	45.04/ton	46.81/ton	48.58/ton
Minimum Charge (Municipal Solid and Inert Waste)	22.00 per load	23.75 per load	25.50 per load
Segregated Uncontaminated Green Waste	28.10/ton	28.10/ton	28.10/ton
Minimum Charge (Segregated Uncontaminated Green Waste)	14.05 per load	14.05 per load	14.05 per load
SCHOLL CANYON LANDFILL, Glendale[1, 3]			
Municipal Solid and Inert Waste	33.77/ton		
Hard-to-Handle, Bulky Items	41.89/ton		
Tires	62.14/ton		
Special Handling	48.46/ton		
Minimum Charge	33.00 per load		
Pull-Offs	31.25 each		
Segregated Uncontaminated Green Waste (one-ton minimum charge)	13.75/ton		
CALABASAS LANDFILL, Agoura[1, 2]			
Municipal Solid and Inert Waste	26.35/ton		
Hard-to-Handle, Bulky Items	32.40/ton		
Tires	45.60/ton		
Special Handling	40.10/ton		
Minimum Charge	25.25 per load		
Pull-Offs	25.85 each		
Segregated Uncontaminated Green Waste (one-ton minimum charge)	12.10/ton		
COMMERCE REFUSE-TO-ENERGY FACILITY, Commerce[4]			
Refuse	41.00/ton		
Minimum Charge	35.00 per load		
Documentation Destruction	41.00/ton plus 475.00 per load		
SOUTHEAST RESOURCE RECOVERY FACILITY (SERRF), Long Beach[5]			
Municipal Solid and Inert Waste (one-ton minimum charge)	33.63/ton		

Notes:

Uncovered loads capable of producing litter	Puente Hills, Puente Hills MRF, Calabasas, South Gate, DART: $4.40/ton surcharge Scholl Canyon: $5.00/ton surcharge; $5.00 minimum Commerce: $4.00/ton surcharge; $4.00 minimum
Nonmanifested tire loads	Puente Hills, Calabasas: $4.40/ton surcharge; $4.40 minimum Scholl Canyon: 1 $5.00/ton surcharge; $5.00 minimum

[1] All rates (excluding pull-offs and green waste rates) include the following fees, as appropriate:

California Integrated Solid Waste Management Fee	$1.40 per ton
Los Angeles County Solid Waste Management Fee	$0.86 per ton
Los Angeles County Department of Health Services Regulatory Service Fee	$0.18 per ton

[2] All rates and surcharges include the Los Angeles County Business License Tax, as appropriate: 10 percent of gross receipts, excluding State and local fees and taxes.

[3] All rates and surcharges include the City of Glendale–Scholl Canyon Landfill Assessment: 25 percent of gross receipts; vehicles owned and operated by the City of Glendale are exempt.

[4] Rates effective November 1, 2004; rates subject to change pursuant to Commerce Refuse-to-Energy Facility Operating Agreement. Because this facility is operated by the Commerce Refuse-to-Energy Authority, the Authority sets the schedule of rates.

[5] Rates effective July 1, 2004; rates may increase in near future pursuant to SERRF Joint Powers Agreement. Because the City of Long Beach is the main operator of this facility, the City sets the schedule of rates.

Table 2.H: 2005 Schedule of Rates for Solid Waste Facilities in Orange and San Bernardino Counties

ORANGE COUNTY—ALL FACILITIES	
Posted Gate Fee	$27.00/ton
Hard-to-Handle, Bulky Items	+5.00/ton
Minimum Charge	5.00/auto 12.00/other vehicle, payload must be less than 860 lbs.
Contract Gate Fee[1]	22.00/ton
SAN BERNARDINO COUNTY—ALL FACILITIES	
Up to 500 lbs.	10.00/ton
Over 500 lbs	36.34/ton
Hard-to-Handle, Bulky Items	86.34/ton
Tires	103.78/ton

Source: www.oclandfills.com/gate_fees; www.co.san-bernardino.ca.us/wsd

[1] Contract rate is only for cities, waste haulers, and sanitary districts that sign 10 year disposal agreements with the County.

2.7 CAPITAL IMPROVEMENTS

The Districts implement capital improvements on an ongoing basis for rehabilitation, which is typically budgeted under operations and maintenance. Capital planning is carried out on a project-by-project basis for each District through a ten-year capital improvement program (CIP). The primary funding sources for the CIP are user charges, connection fees, loans from the State, and bond sales.

Each year the Districts prepare a detailed report on the status of each sewer system. This report is based on information gathered from field staff, who monitor the facilities. Each of the needed repairs or upgrades is prioritized as to its need for relief through expanded capacity or rehabilitation. Information is also provided by the Districts' planning section as to population growth and flow increases so that treatment plant expansions can be scheduled as needed. The Districts have been able to achieve a high level of performance by focusing on preventative maintenance, appropriate levels of staffing, timely expansions, and aggressive utilization of low-cost funding.

In recent years, sewerage systems in many parts of the United States have shown an accelerated rate of sulfide corrosion in concrete sewer pipes. Investigations revealed that the phenomenon is primarily due to a federal mandate that resulted in the reduction of heavy metals entering the sewers from industry. Removal of these metals accelerated corrosion because heavy metals chemically bond with sulfide, rendering it harmless to the concrete pipes. In 2003, the Districts spent approximately $7.9 million on chemicals and contracts to reduce the rate of sulfide production and increase the life of impacted facilities. The Districts' field staff continues to apply chemicals to the trunk lines to counteract the acid resulting from sulfide generation. In addition, major sewer relief and rehabilitation contracts are ongoing and scheduled for the next several years. During the 2002–2003 fiscal year, the Sanitation Districts awarded nine such projects, with a total bid of more than $10.6 million.

2.8 BOUNDARIES AND SPHERES OF INFLUENCE

In 1923, the California State legislature passed the County Sanitation District Act as a part of the State Health and Safety Code. This Act provides that geographic drainage areas (rather than political boundaries) be the determining factors in the formation of sanitation districts. The District's boundaries have been developed pursuant to this Act.

Districts 26 and 32 have recently completed a consolidation of both Districts. LAFCO has issued a Certificate of Completion, and the effective date of this consolidation is July 1, 2005. Both of these Districts serve the Santa Clarita Valley and have been jointly operating a regional wastewater system since July 1984, known as the Santa Clarita Valley Joint Sewerage System. In addition, the Districts have the same members on each Board of Directors and have adopted the same rate ordinances whereby the two Districts will have the same connection and service charge rates beginning in fiscal year 2005–2006. The consolidation was initiated to provide for a more efficient operation, lower administrative costs, and elimination of duplicative staffing.

Some of the Sanitation Districts provide wastewater services to areas outside their boundaries, pursuant to contract for services. While most of these contracts are for small areas directly adjacent to the Districts boundaries, there are three significant contracts. District 21 provides services to the Inland Empire Utility Agency, which is outside of the District's sphere of influence. District 32 provides services to the Peter Pitchess Honor Rancho (County Sheriff's Department prison), which is

within the Districts' sphere of influence. Also, District 14 provides services to the California State Prison, Antelope Valley, which is within the District's sphere of influence. The Districts have stated that it would not make sense for these prison areas to be annexed into the respective District's boundaries. As stated previously, local government facilities are exempt from service charges; however, regional government facilities such as these prisons are subject to service charges. Because the Peter Pitchess Honor Rancho serves the entire County and California State Prison serves the entire State, having a contract for service allows the funding for wastewater services to be obtained through County or State funds. If annexation were to occur, the revenue generated to pay for services would be generated locally (within these Districts' boundaries). In addition, the contracts for services provide adequate funding to pay for services in addition to needed upgrades and maintenance to infrastructure.

The Districts are the sole provider of solid waste and wastewater services within their boundaries. Hence, there is no duplication of services with another provider. All of the Districts' facilities are owned, operated, and maintained by the Districts.

Districts 18 and 21 have spheres of influence areas, which overlap. The overlapping area is 11.76 square miles and corners both San Bernardino and Orange Counties. LAFCO is in the process of eliminating joint or overlapping spheres of influence of agencies throughout the County. The Districts should examine which District would more efficiently serve this area when development occurs and should pursue a detachment of one of the spheres. Due to the topography of this area, and because the area is bordered by the County of Orange, service provision may be more efficient if provided via gravity flow into the Orange County Sanitation District facilities. Either of these Districts could pursue a contract with the Orange County Sanitation District for service to this area.

3.0 POPULATION AND GROWTH

3.1 POPULATION

The California Department of Finance estimates the 2004 population of the County of Los Angeles to be 10,102,961. In the ten years between 1990 and 2000, the population of the County of Los Angeles increased from 8,863,052 to 9,519,330, a total of 6.89 percent. During the same ten-year period, the housing stock increased from 3,163,310 to 3,270,906 units, which was 3.29 percent.

Tables 3.A through 3.I show past population and housing growth within the different geographical areas of the County and the County as a whole. The entire City of Los Angeles is detailed in Table 3.B; however the Districts only provide services to small portions of the City. As can be seen, growth within the Westside Area cities from 1990 through 2004 has been much lower than growth within the other areas or within the County as a whole. Conversely, growth within the North Los Angeles County Area cities, which include Lancaster and Palmdale, have been much higher than growth within the other areas or within the County as a whole.

Table 3.A: Arroyo Verdugo Area Cities* Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	19,378	-	6,918	-
2000	20,318	0.49	6,989	0.10
2004	21,419	1.35	7,053	0.23

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* As listed in Table 1.A

Table 3.B: City of Los Angeles* Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	3,485,557	-	1,300,076	-
2000	3,694,742	0.60	1,337,654	0.29
2004	3,912,244	1.47	1,356,107	0.34

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* Only small portions of the City of Los Angeles are served by the Sanitation Districts.

Table 3.C: Gateway Area Cities* Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	1,608,388	-	531,141	-
2000	1,654,911	0.29	540,955	0.19
2004	1,840,929	2.81	545,855	0.22

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* As listed in Table 1.A

Table 3.D: North Los Angeles County Area Cities* Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	276,936	-	101,804	-
2000	386,519	3.96	131,297	2.90
2004	425,401	2.51	138,340	1.34

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* As listed in Table 1.A

Table 3.E: San Gabriel Valley Area Cities* Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	1,410,109	-	463,099	-
2000	1,497,428	0.62	472,357	0.20
2004	1,584,546	1.45	478,587	0.33

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* As listed in Table 1.A

Table 3.F: South Bay Area Cities* Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	818,285	-	323,254	-
2000	867,561	0.60	330,940	0.24
2004	916,580	1.41	334,650	0.28

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* As listed in Table 1.A

Table 3.G: Westside Area Cities* Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	106,882	-	56,487	-
2000	108,394	0.14	57,148	0.12
2004	114,027	1.30	57,561	0.18

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* As listed in Table 1.A

Table 3.H: Unincorporated County Areas Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	970,194	-	296,780	-
2000	986,050	0.16	293,304	-0.12*
2004	1,064,689	1.99	303,437	0.86

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.
* Due to inaccuracies in the 1990 and 2000 Censuses and annexations of unincorporated areas between 1990 and 2000, housing shows a loss of units between 1990 and 2000.

Table 3.I: Total County Population and Housing (1990, 2000, 2004)

Year	Population	Annual Percent Change	Housing	Annual Percent Change
1990	8,863,052	-	3,163,310	-
2000	9,519,330	0.74	3,270,906	0.34
2004	10,102,961	1.53	3,323,630	0.40

Source: State of California, Department of Finance, *City/County Population and Housing Estimates, 1991–2000, with 1990 Census Counts.* Sacramento, California, May 2000. State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001–2003, with 2000 DRU Benchmark. Sacramento, California, May 2004.

3.2 AVERAGE HOUSEHOLD SIZE

The 2000 Census reports that there were 3,133,774 households within the County, with an average household size of 2.98. Of these households, it is estimated that 2,136,977 (68.2 percent) were family households, while 771,854 households (24.6 percent) were individuals living alone. The balance of the County's households was comprised of nonfamily households with more than one occupant.

The County's existing population per household as identified in the 2000 Census (2.98) is about average when compared to the following counties:

Kern County (3.03)
Orange County (3.00)
Riverside County (2.99)
San Bernardino County (3.15)
San Diego County (2.73)
Ventura County (3.04)

The Southern California Association of Governments's (SCAG's) most recently adopted growth projections show the County's population per household being similar in 2030 at 2.97. Likewise, most of the different County areas are expected to have a steady average of persons per household through 2030. The projected average persons per household within the different County areas are detailed below in Table 3.J.

Table 3.J: Population Per Household (2000–2030)

County Area	2000	2010	2020	2030
Arroyo Verdugo	2.63	2.70	2.68	2.65
City of Los Angeles	2.91	2.98	2.79	2.64
Gateway	3.39	3.50	3.47	3.43
Las Virgenes	2.76	2.85	2.80	2.75
North Los Angeles	3.15	3.27	3.30	3.28
San Gabriel Valley	3.28	3.40	3.35	3.30
South Bay	2.76	2.85	2.85	2.84
Westside	1.95	2.00	1.97	1.94
Unincorporated	3.58	3.65	3.53	3.40

Source: Southern California Association of Governments, 2004 RTP

3.3 GROWTH PROJECTIONS

The most recent growth projections adopted by SCAG indicate that population growth in the County between 2005 and 2025 is expected to be 75,189 persons annually, or 0.70 percent, which is more than what occurred in the 1990s (0.55 percent annually). The number of households will have slightly more growth than in the recent past (35,812 households annually or 1.05 percent).

Los Angeles County LAFCO has broken down SCAG's most recent growth projections by each District's boundary. These projections are shown in Tables 3.K through 3.M. Because seven of the Districts have Sphere of Influence areas, which may be annexed by the Districts at some point in the future, these Districts are listed separately along with the growth projections for their Sphere areas. As shown within these tables, the projected growth within the different geographical areas of the County varies from a low growth rate of 0.07 percent annually to a high of 4.97 percent annually. The areas with the lowest projected growth rate include: La Canada Flintridge, Cerritos, Hawaiian Gardens, Long Beach, and West Hollywood (Districts 28, 34, 19, and 4). The areas with the highest projected growth rate include: Palmdale and Lancaster (Districts 14 and 20).

Table 3.K: County of Los Angeles Growth Projections (2005–2025)

Year	Population	Households	Employment
2005	10,718,007	3,404,016	5,022,215
2015	11,501,884	3,763,875	5,366,865
2025	12,221,799	4,120,270	5,660,992
Annual Growth Rate	0.70%	1.05%	0.64%

Source: Southern California Association of Governments, 2004 RTP

For the most part, the Districts do not control or influence growth. Land use decisions and development approvals are made by the County and the cities. Generally, developers or homeowners connect to local collector sewers that are owned and maintained by the respective local jurisdiction. However, the Districts need to prepare in advance for growth in order to meet future service demands. The Districts utilize SCAG projections for sizing facilities and anticipating needed expansions. In developing facilities plans, the Districts multiply SCAG's growth projections by the waste generation factor, which is based on historic data, to estimate future waste demands. Utilizing SCAG projections within facility plans and loan applications is also a requirement of obtaining SRF funds to finance expansion projects.

Historically, the Districts have noticed some discrepancy in SCAG's projections and the level of growth that actually occurs. In order to meet service needs as they occur and to avoid expenditures before they are necessary, facilities plans are implemented in phased developments or expansions. This allows the Districts to either speed up or slow down the timeline of capital projects to meet the service demand. For example, wastewater flows for the JOS system are behind the projections that were included in the JOS 2010 Facilities Plan. Therefore, planned expansions will be delayed until flows reach a level where the expansions are needed.

Table 3.L: SCAG Growth Projections for Los Angeles County Sanitation Districts With SOI Areas Outside of District Boundaries

	District 3		District 5		District 14		District 15		District 16		District 17		District 18		District 20		District 21		Joint SOI Area of Districts 18 & 21
	Boundary	SOI	Boundary	SOI	Boundary	SOI	Boundary	SOI	Boundary	SOI	Boundary	SOI	Boundary	SOI	Boundary	SOI	Boundary	SOI	SOI
Population																			
2005	514,127	524,833	734,047	734,176	161,969	186,049	626,997	630,684	273,771	275,546	46,362	46,550	356,261	366,734	113,103	124,419	446,669	468,293	5,948
2015	542,387	554,142	774,248	774,385	220,356	256,711	684,881	689,169	290,266	292,304	53,880	54,091	381,243	393,125	160,879	182,270	501,574	526,204	6,665
2025	570,436	583,894	820,323	820,463	274,854	323,896	735,292	740,069	308,033	310,283	59,813	60,044	409,322	422,687	219,567	251,629	549,361	576,496	7,499
Annual Growth Rate (%)	0.55	0.56	0.59	0.59	3.48	3.70	0.86	0.87	0.63	0.63	1.45	1.45	0.74	0.76	4.71	5.11	1.15	1.16	1.30
Housing Units																			
2005	184,740	189,006	254,940	254,990	50,347	56,628	170,287	171,339	102,716	103,304	16,068	16,136	103,883	107,016	30,923	34,001	123,398	129,866	1,575
2015	197,611	202,338	269,859	269,914	69,297	80,524	188,806	190,060	110,879	111,555	19,518	19,598	112,789	116,439	43,485	49,547	141,607	149,142	1,839
2025	211,509	216,857	288,024	288,085	86,705	101,962	207,831	209,294	120,599	121,370	22,986	23,077	121,831	126,046	58,326	67,263	159,081	167,595	2,158
Annual Growth Rate (%)	0.72	0.74	0.65	0.65	3.61	4.00	1.10	1.11	0.87	0.87	2.15	2.15	0.86	0.89	4.43	4.89	1.45	1.45	1.85
Employment																			
2005	192,535	204,776	346,598	346,621	49,661	60,391	233,347	238,821	143,659	143,931	4,782	4,819	154,236	155,159	38,392	39,985	149,111	153,347	316
2015	220,738	235,498	403,912	403,940	59,539	76,412	263,652	269,345	168,125	168,496	5,513	5,557	173,126	174,292	49,158	52,114	170,078	175,330	440
2025	236,482	254,072	421,344	421,373	65,367	85,007	274,796	280,534	177,788	178,185	5,818	5,865	180,472	181,711	61,110	64,831	179,968	185,631	468
Annual Growth Rate (%)	1.14	1.20	1.08	1.08	1.58	2.04	0.89	0.87	1.19	1.19	1.08	1.09	0.85	0.86	2.96	3.11	1.03	1.05	2.39

Source: SCAG 2004 RTP

Table 3.M: SCAG Growth Projections for Los Angeles County Sanitation Districts With SOI Areas that are Coterminous with District Boundaries

	District 1	District 2	District 4	District 8	District 9	District 19	District 23	District 28	District 29	District 30	District 34
Population											
2005	639,952	717,022	37,609	144,372	1,678	104,398	84	12,199	10,287	110,595	8,121
2015	680,623	763,586	38,337	151,301	1,791	107,193	116	12,291	11,304	113,764	8,176
2025	723,440	818,452	39,339	160,285	2,006	109,849	167	12,369	12,942	118,231	8,235
Annual Growth Rate (%)	0.65	0.71	0.23	0.55	0.98	0.26	4.97	0.07	1.29	0.35	0.07
Housing Units											
2005	152,273	200,991	24,540	41,420	653	31,608	17	4,022	4,076	50,556	2,675
2015	163,317	213,891	25,272	44,193	721	32,823	27	4,112	4,511	52,471	2,733
2025	176,765	229,491	26,340	47,590	810	34,208	41	4,256	5,087	55,174	2,829
Annual Growth Rate (%)	0.80	0.71	0.37	0.74	1.20	0.41	6.82	0.29	1.24	0.46	0.29
Employment											
2005	150,653	299,307	31,298	111,232	710	25,377	24,292	13,476	11,423	37,404	7,075
2015	180,383	336,906	35,078	126,927	891	30,222	30,329	14,847	13,882	40,652	7,886
2025	194,396	352,978	37,473	132,020	914	32,033	36,475	15,367	16,671	42,068	8,330
Annual Growth Rate (%)	1.45	0.90	0.99	0.93	1.44	1.31	2.51	0.70	2.30	0.62	0.89

Source: SCAG 2004 RTP

The Districts have a development monitoring system that tracks growth locally in several ways. The District's connection fee program alerts the District that a project is being planned, as fees are paid during a project's development review and approval process. After payment of fees, the Districts track the project's progress and plans for the additional demand. The Districts work in cooperation with developers who are building sewers in previously undeveloped/unserved areas to ensure proper sizing of facilities.

The Districts do not anticipate that the projected growth will become disruptive to the financial position of the Districts. The Districts have expanded and will continue to expand their wastewater reclamation plants (WRPs) to meet the treatment capacity requirements associated with population growth. Such expansions will continue to enable the service areas to meet federal and State water quality standards and increase the available amount of reclaimed water.

The Districts may be able to assist water purveyors in meeting the demands of growth by using the reclaimed water that is available. For example, some areas such as Santa Clarita have water supply issues, which impact growth. The Districts may be able to provide reclaimed water in order to increase the water supply and meet increased service demands of water purveyors. The Districts will continue to work with local and regional water purveyors in planning and constructing reclaimed water delivery systems throughout the service area.

4.0 INFRASTRUCTURE AND PROVISION OF SERVICES

4.1 WASTEWATER

4.1.1 Wastewater Facilities

The Districts' wastewater system consists of approximately 1,400 miles of main trunk sewers, 49 pumping plants, and 11 wastewater treatment plants, as detailed below in Table 4.A. The total current permitted capacity of these facilities is 626.1 mgd. Through these facilities, the Districts convey and treat nearly 515 million gallons per day (mgd) of wastewater and make over 190 mgd of reclaimed water available for reuse. Table 4.B below lists the estimated number of sewage units served by each of the Districts. A sewage unit is defined as the average daily quantity of wastewater flow from a typical single-family home.

Table 4.A: Summary of the Districts' Wastewater Infrastructure in 2003

District No. (JO)[1]	Miles of Sewers		Pump Station
	Trunks	Laterals[2]	
JO System	446.48[3]		16[4]
1	78.03	728	1
2	131.67	1,168	4
3	28.67	194	5
5	118.83	1,074	7
8	36.08	279	2
15	64.02	1,040	3
16	30.97	625	0
17	5.28	110	0
18	65.64	717	0
19	15.42	173	1
21	52.25	731	0
22	80.72	651	0
23	0.00	20	0
28	4.11	27	0
29	0.44	38	0
SBC	14.77	256	8
(Non-JO)			
4	3.71	48	0
9	0.00	5	0
14	48.98	275	0

1 JO indicates Joint Outfall.
2 Owned, operated, and maintained by cities and the County.
3 Miles of sewer trunks that are collectively owned by the Districts participating in the Joint Outfall System.
4 Number of pump stations that are collectively owned by the Districts participating in the Joint Outfall System.

District No. (JO)[1]	Miles of Sewers		Pump Station
	Trunks	Laterals[2]	
20	39.66	154	0
26	15.78	214	0
27	0.04	2	1
32	18.98	162	1

Source: LA County Sanitation Districts, 2003.

Table 4.B: Estimated Sewage Units[1] by Customer Type (Fiscal Year 2002–2003)

District	Residential	Commercial	Industrial	Contract	Total
JOS	1,176,633	405,912	330,441	17,398	1,930,384
14	41,777	11,621	3,207	527	57,132
20	27,749	7,191	403	28	35,371
SCV	52,172	14,248	1,237	3,265	70,922
4	15,668	5,203	0	0	20,871
9	473	429	0	0	902
27	557	1	0	0	558
Total	1,315,029	444,605	335,288	21,218	2,116,140

Source: LA County Sanitation Districts, 2003.

As mentioned previously, seventeen of the Districts are party to the Joint Outfall Agreement, which provides for a regional interconnected system of facilities. The JOS system was designed to take advantage of the regional topography, which slopes gently from the foothills of the San Gabriel Mountains in the north to the Pacific Ocean in the south. Wastewater is collected by local sewers (owned, operated, and maintained by local jurisdictions) that convey it to JOS trunk sewers, which convey the wastewater to one of the JOS treatment plants. The JOS treatment plants include the Joint Water Pollution Control Plant (JWPCP) and six interconnected upstream WRPs: Pomona, San Jose Creek, Whittier Narrows, La Canada, Los Cayotes, and Long Beach.

In 1995, the JOS Districts prepared a Facilities Plan, which provided for facility expansions and upgrades in order to accommodate the projected growth to 2010 and to meet the requirements to provide full secondary treatment facilities. This Facilities Plan and the included facility expansions and upgrades were based on a 16-year planning horizon (1994-2010).

Like the JOS system, the treatment plants within the Santa Clarita area work together as one system to provide wastewater services. Specifically, the Saugus and Valencia WRPs are interconnected. In contrast, the treatment plants (the Palmdale and Lancaster WRPs) in the Antelope Valley are not interconnected. Currently, all of the Districts' wastewater treatment plants have adequate capacity to handle current and near future flows. Table 4.C, shows each of the reclamation plant's current capacity and current flow. In addition, all of the planned facility expansions are listed below.

[1] A sewage unit is the average daily quantity of sewage flow from a single-family home.

Table 4.C: Capacity and Current Flows of Wastewater Reclamation Plants, Per Connecting System

Treatment Plant	Plant Capacity	September 2004 Flow
JOS Plants		
Pomona WRP	13 mgd	9.70 mgd
San Jose Creek WRP	100 mgd	87.13 mgd
Whittier Narrows WRP	15 mgd	7.59 mgd
Los Coyotes WRP	37.5 mgd	31.83 mgd
Long Beach WRP	25 mgd	19.61 mgd
JWPCP	385 mgd	320.7 mgd
La Canada	0.2 mgd	0.2 mgd
Total JOS System Capacity	**576.2 mgd**	**471.22 mgd**
2010 Expansion	**628 mgd**	
Saugus WRP	6.5 mgd	3.89 mgd
Valencia WRP	12.6 mgd	14.56 mgd
Total System Capacity	**19.1 mgd**	**18.45 mgd**
Palmdale WRP	15 mgd	9.25 mgd
Lancaster WRP	16 mgd	13.3 mgd

Source: LA County Sanitation Districts, January 2005

- 2010 Expansion:
  - San Jose Creek WRP will be expanded to 125 mgd by 2006
  - Los Coyotes WRP will be expanded to 50 mgd by 2008
  - JWPCP will be expanded to 400 mgd by 2010
- Valencia WRP will be expanded to 27.6 mgd, which will be phased from 2004 through 2010

In addition to the Los Angeles County Sanitation Districts, there are several other wastewater service providers within the County. Tables 4.D and 4.E provide information regarding these service providers, the facilities that they utilize, and the amount of wastewater that is treated at each facility.

Unincorporated areas of the County are either served by septic systems or by the County of Los Angeles Department of Public Works Sewer Maintenance Division. The Sewer Maintenance Division's facilities include the four wastewater treatment plants that are listed in Tables 4.D and 4.E. Property owners in unincorporated areas have the choice to either connect their properties to any existing nearby facilities or to utilize private septic systems.

Likewise, septic systems are utilized within areas of the following cities:

- Malibu
- Avalon
- Bradbury
- La Canada Flintridge

Table 4.D: Areas in Los Angeles County Not Served by the Los Angles County Sanitation Districts

Area	Service Provider	Wastewater Treatment Facility
Agoura Hills	Las Virgenes Municipal Water District	Tapia Water Reclamation Facility Hyperion Treatment Facility
Avalon	City of Avalon Two Harbors Enterprises (private company)	Avalon Wastewater Treatment Facility Two Harbors Sewage Treatment Plant
Burbank	City of Burbank	City of Burbank Water Reclamation Plant
Calabasas	Las Virgenes Municipal Water District	Tapia Water Reclamation Facility
Hidden Hills	Las Virgenes Municipal Water District	Tapia Water Reclamation Facility
Westlake Village	Las Virgenes Municipal Water District	Tapia Water Reclamation Facility
Malibu	No centralized wastewater services. Service provision via septic systems or sewer facilities that serve specific areas of the City	Trancas Water Pollution Control Plant (Los Angeles [LA] County Public Works) Malibu Water Pollution Control Plant (LA County Public Works) Latigo Bay Shores Wastewater Plant (HOA) Point Dume Wastewater Treatment Plant (private company) Malibu Mesa Wastewater Reclamation Plant (LA County Public Works)
Glendale	City of Los Angeles	Hyperion Treatment Facility LA/Glendale Treatment Facility
San Fernando	City of Los Angeles	Hyperion Treatment Facility
Santa Monica	City of Los Angeles	Hyperion Treatment Facility
Culver City	City of Los Angeles	Hyperion Treatment Facility
City of Los Angeles	City of Los Angeles	Hyperion Treatment Facility Tillman Water Reclamation Plant LA/Glendale Treatment Facility Terminal Island Wastewater Plant

Table 4.E: Wastewater Treatment Facilities in the County Not Provided by the Los Angeles County Sanitation Districts

Treatment Plant	Provider	Plant Capacity	Average Daily Flow
Hyperion Treatment Plant	City of Los Angeles	450 MGD	362 MGD
Tillman Water Reclamation Plant	City of Los Angeles	80 MGD	67 MGD
LA/Glendale	City of Los Angeles/Glendale	20 MGD	20 MGD
Terminal Island	City of Los Angeles	30 MGD	16 MGD
Lake Hughes	Los Angeles County Public Works	91,000 GPD	33,000 GPD
Trancas Water Pollution Control Plant	Los Angeles County Public Works	75,000 GPD	74,231 GPD
Malibu Water Pollution Control Plant	Los Angeles County Public Works	51,000 GPD	28,800 GPD
Malibu Mesa Wastewater Plant	Los Angeles County Public Works	200,000 GPD	126,000 GPD
Tapia Water Reclamation Facility	Las Virgenes Municipal Water District	16.1 MGD	9.5 MGD
Avalon Wastewater Treatment Facility	City of Avalon	1.2 MGD	0.7 MGD
Two Harbors Sewage Treatment Plant	Private Service Provider	57,000 GPD	Unknown per MSR
Burbank Water Reclamation Plant	City of Burbank	9 MGD	9 MGD
Latigo Bay Shores Wastewater Plant	HOA	28,000 GPD	12,000 GPD
Point Dume Wastewater Plant	Private Service Provider	70,000 GPD	70,000 GPD

- Sierra Madre
- Arcadia
- Duarte
- Monrovia
- Pasadena

For the purposes of this analysis, the assumption has been made that the Two Harbors Treatment Plant is operating at capacity. It is also important to note that the wastewater treatment plants that are provided by the Los Angeles County Department of Public Works have been designed to meet the build out demands of specific tracts and that the Department expects all four of its treatment plants to be operating at capacity in the near future.

As detailed in Table 4.E, the other wastewater treatment providers within Los Angeles County are treating approximately 484.6 MGD. This is in addition to the 512.22 MGD of wastewater that was treated by the Sanitation Districts in 2004, as detailed in Table 4.C. This totals approximately 996.82 MGD of wastewater being treated in wastewater treatment plants. Therefore, the Sanitation Districts are treating approximately 51.4 percent of the wastewater being treated in plants. The next largest wastewater treatment provider is the City of Los Angeles, which treats approximately 465 MGD of wastewater, or 46.6 percent of the wastewater being treated in treatment plants. As noted previously, the use of septic systems is prevalent through out the County. The number of septic systems and the amount of wastewater being treated in septic systems is unknown. Because of this, the total amount of wastewater being generated within the County is unknown.

The Los Angeles County Sanitation Districts' 11 wastewater treatment plants (including the JOS plants) are listed and detailed below.

The **Joint Water Pollution Control Plant (JWPCP)** is located at 24501 S. Figueroa Street in Carson. The plant occupies approximately 350 acres to the east of the Harbor (I-110) Freeway. A total of 135 of the 350 acres are used as buffer areas between the operational areas and surrounding residential neighbors. These buffer areas include nursery operations, the Wilmington Boys and Girls Club, a fresh water marsh area, and Kelloggs Supply, Inc. The JWPCP is one of the largest wastewater treatment plants in the world and is the largest of the Districts' wastewater treatment plants. The facility provides both primary and secondary treatment for approximately 320 mgd of wastewater. Solids collected in primary and secondary treatment are processed in anaerobic digestion tanks where bacteria break down organic material and produce methane gas. After digestion, the solids are dewatered and hauled off site for use in composting, land application, or combined with municipal solid waste for co-disposal. Methane gas generated in the anaerobic digestion process is used to produce power and digester heating steam in a combined cycle power plant that utilizes gas turbines and waste-heat recovery steam generators. The power plant produces 22 mW of electricity. The on-site generation of power permits the JWPCP to be self-sufficient with respect to its energy requirements.

The plant serves a population of approximately three and one-half million people throughout the County. Prior to discharge, the treated wastewater is disinfected with hypochlorite and sent to the Pacific Ocean through a network of outfalls. These outfalls extend two miles off the coast of Southern

California into the Palos Verdes Peninsula to a depth of 200 feet. The JWPCP's effluent tunnel and outfall system is currently operating near capacity; therefore, the Districts plan to construct a new outfall system to ensure that necessary capacity will be available.

The **La Canada WRP** is located at 533 Meadowview Drive in La Canada Flintridge. The plant occupies approximately one-third of an acre on the grounds of the La Canada Flintridge Country Club. The La Canada WRP provides extended aeration secondary treatment for 200,000 gallons of wastewater per day. The plant serves the 425 homes surrounding the Country Club. All of the disinfected secondary effluent is discharged into the four lakes on the 105-acre golf course. Lake water (augmented by potable water during the summer) is used for landscape irrigation of the golf course.

The **Lancaster WRP** is located at 1865 West Avenue "D," Lancaster. The plant occupies 554 acres east of the Antelope Valley (SR-14) Freeway. The Lancaster WRP provides primary and secondary treatment (aerated oxidation ponds) for up to 16 mgd of wastewater. The plant serves a population of approximately 160,000 people. Over 3 million gallons per day of the chlorinated effluent is reused at a local farm for irrigation of alfalfa. Nearly 6 million gallons per day are sent to Piute Ponds to maintain 200 acres of wetlands as a wildlife refuge. Over 100,000 gallons per day receive advanced treatment consisting of chemical coagulation to reduce phosphate and dual-media filtration and are sent to Apollo Lakes Regional Park.

The Lancaster WRP is operated and maintained by District No. 14, which prepared a 2020 Facilities Plan in May 2004 for this facility to address current and future wastewater management services. District No. 14 serves most of the City of Lancaster, parts of the City of Palmdale, and portions of unincorporated County area. In addition to the treatment facility, the District operates a network of approximately 64 miles of trunk sewers. Based upon SCAG projections, the 2020 sewered population within District 14 is expected to be 252,000, an increase of 86 percent over the 2003 population of 135,387. This population is projected to generate 26 mgd of wastewater that would need to be managed by the Lancaster WRP. Since the current 16 mgd capacity of the plant is expected by SCAG projections to be reached by 2007–2008, the plant must be expanded in order to accommodate the expected increase in demand.

In addition, when this plant's storage reservoirs and Piute Ponds become full, effluent (reclaimed water) overflows into Rosamond Dry Lake, which is located on Edwards Air Force Base (EAFB). Since these effluent overflows are not authorized by EAFB, the RWQCB, Lahontan Region, considers these overflows a threatened nuisance condition and, thus, a violation of the Lancaster WRP's Waste Discharge Requirements. The RWQCB, Lahontan Region, has issued a compliance date of August 25, 2005, to eliminate this threatened nuisance condition.

The 2020 Facilities Plan recommends that the facility be expanded to a capacity of 26 mgd, providing secondary and tertiary treatment. New components of this project would be constructed in phases. Recycled water for municipal reuse projects would be provided from this facility. In addition, the District would acquire 750 acres of land for construction of effluent storage reservoirs, and approximately 4,650 acres will be acquired for agricultural reuse operations, which will help increase the effluent management capacity. Based upon this Facilities Plan, all effluent overflows onto Rosamond Dry Lake will be eliminated after April 2009.

District 14 will finance these upgrades primarily from utilizing the SRF loan program as well as any available bond proceeds. It is projected that the service charge rate will have to increase from $67 per year per single-family home to approximately $220 per year per single-family home by fiscal year 2008–2009. In addition, it is projected that the connection fee will also have to increase, in phased increments, from its current rate of $1,780 per single-family home to approximately $3,900 per single-family home. It should be noted that the current service charge rate of $67 per year per single-family home has been in effect for 11 years, since fiscal year 1993–1994. Although a significant increase in the present rate is projected as a result of the cost to construct and operate the recommended expansion project, the projected future rate of $220 per year is equal to the median rate charged in 2002 by all communities in California.

It is anticipated by the Facilities Plan that by 2020, the District No. 14 service area will be coincident with the District's sphere of influence. In addition, per the Facilities Plan, the east and west boundaries of the District's sphere of influence represent the probable extent to which gravity flow sewers could both economically and satisfactorily perform.

The **Long Beach WRP** is located at 7400 E. Willow Street in Long Beach. The plant occupies 17 acres west of the San Gabriel River (I-605) Freeway. The Long Beach WRP provides primary, secondary, and tertiary treatment for 25 mgd of wastewater. The plant serves a population of approximately 250,000 people. Almost 5 mgd of the purified water is reused at over 40 reuse sites. These include irrigation of schools, golf courses, parks, and greenbelts and for repressurization of oil-bearing strata.

The **Los Coyotes WRP** is located at 16515 Piuma Avenue, in Cerritos. The plant occupies 34 acres at the northwest junction of the San Gabriel River (I-605) and the Artesia (SR-91) Freeways. Twenty of the 34 acres are occupied by the Iron Wood Nine Golf Course. The Los Coyotes WRP provides primary, secondary, and tertiary treatment for up to 37.5 mgd of wastewater. The plant serves a population of approximately 370,000 people. Over 5 million gallons per day of the purified water is reused at over 200 reuse sites. These include irrigation of schools, golf courses, parks, nurseries, and greenbelts and industrial use at local companies for carpet dying and concrete mixing.

The **Palmdale WRP** is located at 39300 30th Street East in Palmdale. The plant occupies 286 acres east of the Antelope Valley (SR-14) Freeway. The Palmdale WRP provides primary and secondary treatment (aerated oxidation ponds) for up to 15 mgd of wastewater. The plant serves a population of approximately 150,000 people. Approximately 4 mgd of the effluent is reused for irrigation of trees and fodder crops on the Department of Airports' property.

The Palmdale WRP is operated by District 20, which is currently preparing the Palmdale WRP 2025 Facilities Plan to propose upgrades and expansion of wastewater treatment and effluent management facilities to meet the needs of District No. 20 through 2025. District No. 20 provides wastewater management services for the City of Palmdale and nearby areas of unincorporated Los Angeles County. The Facility Plan was necessitated because wastewater flows are projected to be approximately 22.5 mgd by 2025. The WRP's current capacity is 15 mgd, and the effluent management site is not large enough to accommodate this volume.

In addition, since 2000, the WRP has come under increasingly more stringent regulatory requirements, including Revised Waste Discharge Requirements, Revised Monitoring and Reporting

Programs, and a Cleanup and Abatement Order. In order to comply with these requirements, District No. 20 will carry out a facilities planning process to identify treatment plant modifications and upgrades best suited to meet these new requirements while still providing cost-effective services.

The **Pomona WRP** is located at 295 Humane Way in Pomona. The plant occupies 14 acres northeast of the junction of the Pomona (SR-60) and Orange (SR-57) Freeways. The Pomona WRP provides primary, secondary, and tertiary treatment for 13 mgd of wastewater. The plant serves a population of approximately 130,000 people. Approximately 8 million gallons per day of the purified water is reused at over 90 different reuse sites. These include irrigation of parks, schools, golf courses, landscaping, greenbelts, and irrigation and dust control at the Spadra Landfill and industrial use by local paper manufacturers. The remainder of the purified water is put back into the San Jose Creek channel, where it makes its way to the unlined portion of the San Gabriel River. Therefore, nearly 100 percent of the water is reused, since most of the river water percolates into the ground water.

The **San Jose WRP** is located at 1965 Workman Mill Road in unincorporated Los Angeles County, next to the City of Whittier. The plant occupies 39 acres north of the Pomona (SR-60) Freeway on both sides of the San Gabriel (I-605) Freeway. The San Jose Creek WRP provides primary, secondary, and tertiary treatment for 100 mgd of wastewater. The plant serves a largely residential population of approximately one million people. Approximately 35 mgd of the treated water is reused at 17 different reuse sites. These include groundwater recharge and irrigation of parks, schools, and greenbelts. The plant serves a largely residential population of about one million people.

The **Saugus WRP** is located at 26200 Springbrook Avenue in Saugus. The plant occupies 4 acres east of San Fernando Road in the City of Santa Clarita. The Saugus WRP provides primary, secondary, and tertiary treatment for up to 6.5 mgd of wastewater. The plant serves a population of approximately 70,000 people.

The Saugus and Valencia (discussed below) WRPs are operated and maintained by Districts 26 and 32 and are part of the Santa Clarita Valley Joint Sewerage System (SCVJSS). This system consists of an interconnected network of more than 30 miles of trunk sewers, one pumping plant, and these two WRPs. In 1998, Districts 26 and 32 prepared a 2015 Facilities Plan and EIR to meet the projected wastewater needs of the Santa Clarita Valley through 2015.

The **Valencia WRP** is located at 28185 The Old Road in Valencia. The plant occupies 27 acres west of the Golden State (I-5) Freeway in the City of Santa Clarita. The Valencia WRP provides primary, secondary, and tertiary treatment for up to 12.6 mgd of wastewater. The plant currently serves a population of approximately 110,000 people.

The **Whittier Narrows WRP** is located at 301 N. Rosemead Blvd. in El Monte. The plant occupies 27 acres south of the Pomona (SR-60) Freeway. The Whittier Narrows WRP was the first reclamation plant built by the Districts in 1962. It provides primary, secondary, and tertiary treatment for up to 15 mgd of wastewater. The plant serves a population of approximately 150,000 people. Virtually all of the purified water is reused as groundwater recharge into the Rio Hondo and San Gabriel Coastal Spreading Grounds or for irrigation at an adjacent nursery.

4.1.2 Effluent Disposal

The Districts' wastewater system is dependent upon the ability to dispose of treated effluent. The majority of the Districts' effluent is discharged either directly or indirectly into the Pacific Ocean, with a smaller portion being reused. As mentioned previously, the JWPCP discharges effluent through a tunnel and outfall system, which is currently operating near capacity. Therefore, the Districts plan to construct a new tunnel and outfall system to ensure the overall reliability of the wastewater system. The biosolids that remain after the treatment process at JWPCP are transported off site and used by multiple contractors. Two contractors compost the material and distribute as a soil amendment, a third uses a cement kiln to reduce nitrogen oxide emissions, and three other contractors apply the solids to agricultural lands.

Effluent disposal is an ongoing issue for the wastewater treatment plants that are located in the Antelope Valley (Lancaster and Palmdale) and Santa Clarita (Saugus and Valencia) Valleys, since these areas have no natural outlets (rivers, ocean) for disposal. Because of this, District 20 has re-negotiated a lease with Los Angeles World Airports (LAWA) that allows disposal of the Palmdale WRP's effluent on approximately four square miles of the LAWA's Palmdale Regional Airport's property for the next 20 years. In addition, in March of 2002, the Districts began an agricultural reuse project that utilizes approximately 2 mgd of reclaimed water from the Palmdale WRP to irrigate 320 acres of fodder crops. Due to the success of this program, it has been expanded.

In addition, the Districts have purchased 14,469 acres of farmland in Kings County. This site is a composting facility for biosolids, greenwaste, and other feedstocks. Also, in partnership with the Inland Empire Utility Agency, the Districts' recently formed a JPA and purchased a former warehouse property located in San Bernardino County to be permitted as an enclosed biosolids composting facility.

4.1.3 Water Recycling

All of the JOS wastewater treatment plants produce effluent suitable for unrestricted recreational use. The goal of the Sanitation Districts is to recycle as much of the reclaimed water from its water reclamation plants as possible. The Districts are eager to pursue cooperative arrangements to utilize the Districts' treated water. The Districts must, pursuant to Regional Water Quality Control Board requirements, treat water to specified levels of purity. The Districts would like to see this water recycled rather than disposed of in creeks and rivers. Currently, approximately 35 million gallons per day of the purified water from San Jose Creek Plant is sent to percolation basins for groundwater recharge. Another 300,000 gallons per day are sent to the California Country Club for irrigation, and 1 million gallons per day are used for the Industry Hills Golf Course. A small amount is used by a nursery contractor. In 1994 the San Jose Creek Plant was connected to the E. Thornton Ibbetson Century and Esteban Torres Rio Hondo Water Recycling projects, which supply the water recycling needs of more than a dozen cities in the Central L.A. Basin. These Water Recycling projects are owned and operated by the Central Basin Municipal Water District.

In addition, the Districts are currently providing reclaimed water to the Puente Hills Landfill, Puente Hills Energy Recovery from Gas Facility, and Rose Hills Memorial Park. Reclaimed water use is also being expanded to include sites in and around the Cities of Industry, Diamond Bar, West Covina, Walnut, Rowland Heights, Pico Rivera, Commerce, Vernon, Long Beach, and Santa Clarita; the

Whitter Narrows Recreation Area; the Alamitos Seawater Intrusion Barrier; and the San Gabriel Valley Ground Water Recharge project.

A couple of constraints exist in the use of recycled water. Because the Districts' treated water is not potable, separate infrastructure is needed for this water. The cost of constructing and maintaining the additional infrastructure is expensive and becomes a constraint. In an effort to balance the cost of infrastructure, the Districts have entered into agreements with agencies in which the Districts provide recycled water for free during the time the agency is paying for the infrastructure. After the infrastructure is paid for, the agencies then begin paying for the recycled water supply.

Another constraint to the Districts providing recycled water involves the Districts' enabling law. Under the law, the Sanitation Districts are prohibited from being a water purveyor. The law does not distinguish between different kinds of water (i.e., ground water, reclaimed water). Likewise, the law did not anticipate the sale of reclaimed water. Therefore, a distinction between disposing of effluent in a useful manner and being a water purveyor does not exist. The process of the Sanitation Districts selling reclaimed water to water purveyors who then sell it to end users has some complexity issues that could in fact increase the cost of the reclaimed water. Until the process is streamlined, the potential increase in costs poses a serious constraint to efficient utilization of this resource, as some of the Districts' reclaimed water is disposed of in creeks and rivers.

Because water is a valuable finite resource, all reclaimed water resources should be utilized to the maximum extent. Potential ways to mitigate these constraints and implement water recycling include: (1) local agencies requiring developers to construct dual piping to accommodate recycled water, and (2) legislation to allow Districts to provide treated water and/or encourage cooperative low-cost arrangements with water purveyors.

4.1.4 Laboratories

The Districts operate two large full-service laboratories and eight small laboratories. The San Jose Creek Water Quality Laboratory is a central laboratory facility for the Districts. The laboratory staff provides analytical services that meet all the requirements of the RWQCB for all of the Districts' treatment facilities, in addition to, landfill operations, regulatory permit requirements, industrial pretreatment and control programs, and engineering research efforts. A full spectrum of analytical services is available, including chemical, biological, and microbiological testing. The Districts' scientists employ a combination of classical techniques and modern, sophisticated instrumentation to provide assessments of inorganic and organic chemicals, bacteria, viruses, and toxicity. More than 300,000 tests on 20,000 samples are performed annually. In addition, new and improved analytical methods are continually being evaluated and developed. In order to meet the demands of growth, the Districts are in the process of building an annex to the JWPCP laboratory and have expanded biological services in the Santa Clarita and Antelope Valley Regions.

4.2 SOLID WASTE FACILITIES AND SERVICES

4.2.1 Landfill Facilities

The Districts operate a comprehensive solid waste management and disposal system, which serves a large portion of the County. The signatories to the "Sanitation Districts Solid Waste Management

System Agreement" are Districts 1, 2, 3, 5, 8, 15,16, 17, 18, 19, 21, 22, 23, 29, and South Bay cities[1]. District 2 has been designated as the administrative District, which indicates that District 2 can set rates, purchase equipment, approve construction contracts, and sign agreements on behalf of all the solid waste Districts.

During 2003, jurisdictions in Los Angeles County disposed of an average of approximately 38,500 tons of solid waste per day. Of this amount, approximately 81 percent, or 31,300 tons, were disposed in landfills located in Los Angeles County that are owned by the Districts. Riverside and Orange County landfills received approximately 90 percent of the 7,200 remaining tons per day of waste.

The Districts' solid waste management system includes three active sanitary landfills, three closed landfills, two material recovery facilities, multiple landfill recycling programs, and in conjunction with the County's Department of Public Works, an extensive program of household hazardous waste collection round-ups. The three active landfills handle approximately 19,500 tons per day (tpd), of which 16,000 tpd are disposed and 3,500 tpd are recycled. In addition, the Districts have participated in the development of two refuse-to-energy facilities, one of which the Districts operates.

The Districts' three active landfill facilities are detailed below. These facilities are Class III landfills that accept construction/demolition waste, dead animals, and mixed municipal refuse.

The **Puente Hills Landfill** serves more than 80 jurisdictions and is permitted to accept an average of 13,200 tons of solid waste per day. The landfill is located in unincorporated Los Angeles County, next to the City of Whittier. The landfill is south of the intersection of the Pomona (SR-60) and San Gabriel (I-605) Freeways. The landfill encompasses 1,365 acres; however, the disposal acreage is 433 acres. The estimated closure date of this facility is October 31, 2013.

The **Scholl Canyon Landfill** is operated by the Districts under a Joint Powers Agreement among the Districts, the City of Glendale, and the County. The Districts are responsible for operating the facility, and the City of Glendale is responsible for maintaining the closed northern portion. The landfill is located in the City of Glendale, just north of the SR-134 Freeway in the City of Glendale. The facility encompasses 444 acres, and the disposal acreage is 314 acres. The permitted daily throughput is 3,400 tons. The estimate closure date for this facility is January 1, 2019.

The **Calabasas Landfill** is located within the boundaries of the National Park System (Santa Monica Mountains National Recreation Area) and is operated pursuant to a Joint Powers Agreement between the Districts and the County, who owns the property. The landfill is located on Lost Hills Road just north of the Hollywood (U.S. 101) Freeway, next to the City of Calabasas. The facility encompasses 505 acres, and the disposal acreage is 416. The permitted daily throughput is 3,500 tons. The estimated closure date for this facility is January 1, 2028.

The Districts maintain three closed landfills. The Palos Verdes Landfill is located on Crenshaw Boulevard in Rolling Hills Estates. The Mission Canyon Landfill is located on North Sepulveda Boulevard in the City of Los Angeles. The Spadra Sanitary Landfill is located on West Valley Boulevard in the City of Pomona. The Spadra Landfill was a Class III facility and was closed on

[1] The Districts' designation of the South Bay cities is different than the designations in Table 1.A or Section 3.0, which are based upon SCAG's 2004 Regional Transportation Plan.

January 1, 1999. In 1985, the Districts, the County, and Cal Poly Pomona established Landlab as a joint project on this facility. Landlab provides education and research in the sustainable use of resources while providing recycling, the diversion of waste materials, and the efficient use of refuse disposal capacity, landfill site revegetation, and wildlife protection. Educational programs include undergraduate and graduate instruction, seminars, and workshops.

4.2.2 Waste-by-Rail

Pursuant to Conditional Use Permits for solid waste facilities, the Districts are required to use best-faith efforts to pursue and expedite the development of a waste-by-rail system that will serve the disposal needs of the affected jurisdictions. In August 2000, the Districts entered into purchase agreements for the Mesquite Regional Landfill and the Eagle Mountain Landfill, both of which are designed and permitted to receive waste via rail. The Districts plan to have a waste-by-rail system fully functional by January 2010.

The cost of disposal via waste-by-rail has been the largest constraint of implementation. The current range of costs to dispose of residual waste through direct haul to a landfill or through the use of MRF/transfer stations is approximately $21 to $50 per ton. The projected cost for waste-by-rail is approximately $55 to $60 per ton, as shown in Table 4.F. In order to begin the waste-by-rail program despite the cost of transportation, the Districts have proposed supporting the project from the Puente Hills MRF by providing funds from revenues collected from operation of the Puente Hills Landfill. The needed revenue would be generated through a series of incremental increases to the tipping fee at the Puente Hills Landfill and MRF, which would be approximately $1.50 to $2.00 per ton per year. From these funds, the Districts will begin to transport waste via rail. The initial waste-by-rail transfer is designed to operate a maximum of 4,400 tpd, which is equivalent to one train.

Table 4.F: Cost of Waste Disposal

Transportation	Typical Tipping Fee ($/ton)	Typical Haul Distances
Direct haul in collection trucks to local landfills	$21–$40	Less than 30 miles
MRF and transfer facilities utilizing transfer trucks	$30–$50	Less than 150 miles
MRF and transfer facilities utilizing waste-by-rail	$55–$60	Over 150 miles

Source: County Sanitation Districts, July 2004.

The components of the Waste-By-Rail system located within the County will consist of MRFs/transfer stations and intermodal rail yards. The Puente Hills MRF, the Downey Area Recovery Facility, and the South Gate Transfer Station will form the initial infrastructure for a waste-by-rail system. In addition, the Districts and the City of Los Angeles have entered into a Joint Powers Agreement in which the agencies would cooperatively plan, construct, operate, and maintain one or more MRF/transfer stations. All of these facilities that are associated with the Waste-by-Rail system are detailed below.

The **Mesquite Regional Landfill** is a fully permitted Class III landfill located on 4,245 acres of land in Imperial County, approximately 220 miles southeast of Los Angeles. The landfill will provide capacity for approximately 660 million tons of residual municipal solid waste (approximately 100 years of capacity). The facility is fully permitted to handle up to 20,000 tons of waste per day. The Districts completed purchase of this landfill in December 2002. A Master Plan has recently been completed to plan the landfill operations. The Districts expect the landfill to be in operation by 2009.

The **Eagle Mountain Landfill** is located approximately 175 miles east of the Los Angeles County area and 12 miles north of Interstate 10 in Riverside County. The landfill has a total capacity of 708 million tons and is currently permitted to accept up to 460 million tons. Completion of the purchase of the landfill is dependent upon the resolution of ongoing federal litigation regarding the land exchange between the current owners and the Bureau of Land Management. All legal briefs for the litigation have been filed and are awaiting Federal courts to render a decision. If the decision were appealed, the case would go to an Appellate Court and would likely take another two to three years.

4.2.3 Materials Recovery Facilities, Transfer Facilities, and Recycle Centers

The **Puente Hills MRF** is located next to the Puente Hills Landfill in unincorporated Los Angeles County. The purpose of the MRF is to recover recyclable materials from commercial waste and provide transfer of the residual waste to landfills for proper disposal. The Puente Hills MRF is currently under construction, with completion scheduled by spring 2005. The facility is permitted to accept 4,400 tons per day and 24,000 tons per week of municipal solid waste but will initially accept only 500 tons per day. Initially, residual waste from the Puente Hills MRF will be directly hauled to landfills in trucks. By 2009, it is projected that residual waste from the Puente Hills MRF will be delivered to rail yards for transfer to remote landfills via rail.

The **Downey Area Recycling Transfer (DART) Facility** is located on a 6.2-acre site in the City of Downey. It is permitted to receive, handle, and process up to 5,000 tons of waste per day. The facility has been in operation since 1997.

The **South Gate Transfer Facility** is located in the City of South Gate, east of the Long Beach Freeway (I-710) at the Firestone Boulevard exit. This facility has been in operation since 1997 and is permitted to accept 1,000 tons of nonhazardous waste per day.

The Districts operate two recycle centers: the Puente Hills Landfill Recycle Center and the Palos Verdes Landfill Recycle Center.

The **Puente Hills Landfill Recycle Center** is temporarily closed due to construction of the Puente Hills Materials Recovery Facility.

The **Palos Verdes Landfill Recycle Center** is located at the Palos Verdes Landfill in the City of Rolling Hills Estates and across from the County's South Coast Botanic Gardens. It is a buy-back recycle center that is certified by the California Department of Conservation and accepts all California redemption containers as well as newspaper, used oil, cardboard, and office paper.

4.2.4 Refuse/Gas-to-Energy Facilities

The Districts have constructed and are operating, several gas-to-energy facilities and a compressed gas facility that dispenses fuel for vehicles. As a part of the natural decomposition process, buried trash produces a gas by-product composed mostly of methane and carbon dioxide. Landfill gas also contains trace compounds that can cause odors to surrounding areas. The gas-to-energy facilities that are detailed below contain an extensive network of wells and trenches that collect this gas, which are then combusted in on-site power plants. This process produces a substantial amount of energy and also eliminates odor. All of the Districts' facilities contain air pollution control equipment that consistently maintain low emissions. All of the Districts' facilities meet strict South Coast Air Quality Management District (SCAQMD) requirements and are listed below.

The **Puente Hills Landfill Gas-to-Energy Facility** is the largest gas-to-energy facility that has been constructed by the Districts. This facility has been in operation since 1987 and has remained operational 95 percent of the time. This facility produces close to 50 megawatts (mW), equivalent to the energy requirements of approximately 70,000 homes. Of this energy, 46 mW are sold to Southern California Edison (SCE). A portion of the gas from this facility is also converted to compressed natural gas that is used as vehicle fuel. A fueling facility is also located at the landfill, which is used for numerous Districts' vehicles, and for heating and cooling of the Districts' facilities.

The **Palos Verdes Gas-to-Energy Facility** uses landfill gas from the site, which ceased landfill operations in 1980 and is operated under a Joint Powers Agreement with the County. This plant produces approximately 12 mW for sale to SCE.

The **Spadra Landfill Gas to Energy Facility** produces approximately 8 mW of power for sale to SCE.

The **Calabasas Landfill Microturbine Gas to Energy Facility** was created and funded by the SCAQMD to alleviate critical electricity demand without resorting to sources that are more polluting, such as diesel generators. The electricity generated in this facility is used to power the facility and as a standby source for SCE. The facility has been in full operation since August 2002 and is operated in parallel with the SCE power grid.

The Districts have also constructed and are utilizing two refuse-to-energy facilities. These facilities, which use waste as fuel to produce power, have an important role in managing the solid waste disposal needs of Los Angeles County. These facilities are detailed below.

The **Southeast Resource Recovery Facility Authority** (SERRF) was created by a Joint Powers Agreement between the Districts and the City of Long Beach. This refuse-to-energy facility began operating in July 1988 and has the capacity to combust 1,350 tons of refuse per day. The facility reduces the volume of solid waste by approximately 80 percent, while recovering electrical energy. It produces 36 mW of electricity for SCE, which is enough to supply 35,000 homes with electrical power. SERRF is equipped with the Best Available Control Technology, and air emissions that result from burning waste are controlled by several measures. Emissions are monitored by a combination of continuous monitors. A private contractor operates the facility.

The **Commerce Refuse-to-Energy Authority** is a joint powers agency formed by the City of Commerce and the Districts. The facility combusts approximately 360 tons of refuse and generates

10 mW of energy for sale to SCE. This is enough electricity for 20,000 Southern California homes. Approximately 99 percent (by weight) of the incoming refuse is recycled as metals, energy, or roadbase. The Commerce Refuse-to-Energy Facility has established itself as one of the best refuse-to-energy plants in the world, having produced some of the lowest emissions on record and operating an innovative ash reuse system. The system has won four national awards:

- Environmental Protection Award from "Power" magazine
- Award of Excellence from the Solid Waste Association of North America (SWANA)
- Grand Prize for Operation/Management from the American Academy of Environmental Engineers
- Facility Recognition Award from the American Society of Mechanical Engineers

Environmentally sound refuse-to-energy facilities can continue to assist the County Sanitation Districts in both producing power and by providing disposal for solid waste. Because the County may be facing a shortage of landfill capacity, as discussed in detail below, the continued construction and operation of these facilities may be the solution to future solid waste disposal issues.

4.2.5 Diversion

The California Integrated Solid Waste Management Act (AB 939) requires cities to implement programs to divert 50 percent of the total solid waste generated by 2000. The Districts are committed to supporting cities in their efforts to achieve these waste diversion goals. In addition to ongoing technical support, the Districts have continued to increase the type and amount of recycled materials. The Districts have implemented various waste diversion programs to remove materials such as green waste, Christmas trees, asphalt, ash, soil, and metals from the waste stream to be recycled. Table 4.G lists the most recent diversion rates available for the cities that are served by the Districts. As shown, only 27 cities out of 89 (30 percent of the cities) are meeting the 50 percent diversion goal.

4.2.6 Landfill Capacity

The Puente Hills Landfill Annual Report of 2004 states that the County faces a potentially large landfill capacity shortfall. As shown in Table 4.H, the amount of solid waste in need of disposal would exceed the combined daily capacity of all Class III landfills and refuse-to-energy facilities in 2013. Assuming that diversion remains at 50 percent, Los Angeles County will require approximately 12,700 tpd of additional waste management capacity through waste-by-rail, conversion technologies, or other methods in 2013. This need will increase in subsequent years, reaching approximately 27,700 tpd in 2017. Therefore, the Districts have continued their efforts to expand recycling, secure additional disposal capacity, and research additional conversion technologies. This analysis does not include the Eagle Mountain or Mesquite Regional Landfill because neither of these facilities are currently operating. The waste-by-rail system is planned to be fully functional by 2010. With implementation of the remote landfill system, the County would be able to meet the projected demands for service.

In addition to the Los Angeles County Sanitation Districts, there are several other solid waste facility providers within the County. Table 4.I provides information regarding these facility providers, the facilities that are utilized, and the amount of solid waste that is treated at each facility.

Table 4.G: Most Recent Diversion Rates Available for the Cities that are Served by LACSD

City	Diversion Rate	City	Diversion Rate
Agoura Hills	21%	Lawndale	37%
Alhambra	66%	Lomita	40%
Arcadia	70%	Long Beach	43%
Artesia	20% (1999)	Los Angeles	62%
Avalon	30%	Lynwood	28%
Azusa	46%	Malibu	33%
Baldwin Park	4%	Manhattan Beach	33% (1999)
Bell	21%	Maywood	33%
Bell Gardens	46%	Monrovia	54%
Bellflower	32%	Montebello	59%
Beverly Hills	57% (2002)	Monterey Park	64%
Bradbury	62%	Norwalk	29%
Burbank	56%	Palmdale	42%
Calabasas	36%	Palos Verdes Estates	48%
Carson	68%	Paramount	45%
Cerritos	38%	Pasadena	48%
Claremont	55%	Pico Rivera	32%
Commerce	34%	Pomona	56% (1998)
Compton	31%	Rancho Palos Verdes	51% (2002)
Covina	43%	Redondo Beach	37% (1998)
Cudahy	48%	Rolling Hills	49%
Culver City	49%	Rolling Hills Estates	50%
Diamond Bar	57%	Rosemead	29% (1999)
Downey	40%	San Dimas	67%
Duarte	36% (1999)	San Fernando	54%
El Monte	57%	San Gabriel	31%
El Segundo	76%	San Marino	29%
Gardena	1%	Santa Clarita	40%
Glendale	40%	Santa Fe Springs	76%
Glendora	44%	Santa Monica	65% (2002)
Hawaiian Gardens	40%	Sierra Madre	27% (1999)
Hawthorne	47%	Signal Hill	34%
Hermosa Beach	42%	South El Monte	77%
Hidden Hills	37% (1999)	South Gate	42% (1999)
Huntington Park	32%	South Pasadena	49%
Industry	64%	Temple City	54%
Inglewood	33%	Torrance	N/A
Irwindale	80%	Vernon	44%
La Canada Flintridge	31%	Unincorporated	11%
La Habra Heights	47%	Walnut	59%
La Mirada	52%	West Covina	52%
La Puente	26%	West Hollywood	38%
La Verne	53%	Westlake Village	49%
Lakewood	35%	Whittier	47%
Lancaster	40%		

Source: www.ciwmb.ca.gov, January 2005.
Note: Rates without a year noted are the preliminary diversion rates from 2003.

Table 4.H: Los Angeles Disposal Capacity Analysis

Year	Waste Generation (tpd-6)	Percent Diversion	Disposal Need (tpd-6)	Expected daily tonnage, 6-day average (tpd-6) based on 2003 Disposal Tonnages Remaining Landfill Capacity at Year's End (Million Tons)																	Disposal Capacity (Shortfall)
														Out of County				Transformation			
				Puente	Calabasas	Scholl	Bradley	Chiquita	Sunshine	Antelope Valley	Lancaster	Burbank	Savage	Orange	Ventura	Riverside	San Ber.	Commerce	SERRF		
2010	91,339	50.0%	45,670	13,200 11.2	1,749 7.1	1,719 4.2	1,522 1.2	5,000 4.9	9,503 61.4	1,159 15.0	1,417 10.7	152 3.0	308 4.2	3,400	676 12	3,754 82	199	330	1,580	16,717
2011	93,546	50.0%	46,773	13,200 7.2	1,791 6.6	1,761 3.6	1,559 0.7	5,000 3.3	10,300 58.2	1,187 14.6	1,451 10.3	156 2.9	316 4.1	3,400	692 12	3,845 79	204	330	1,580	15,681
2012	95,806	50.0%	47,903	13,200 3.1	1,834 6.0	1,804 3.1	1,597 0.3	5,000 1.8	11,000 54.8	1,800 14.1	P	160 2.9	324 4.0	3,400	709 11	4,533 76	209	467	1,867	11,622
2013	98,120	50.0%	49,060	C	1,879 5.4	1,847 2.5	C	5,000 0.2	11,000 51.4	1,800 13.5		164 2.8	331 3.9	3,400	930 10	7,500 83	214	467	1,867	(12,661)
2014	100,491	50.0%	50,245		1,924 4.8	1,892 1.9		C	11,000 48.0	1,800 13.0		168 2.8	350 3.8	3,400	899 9	7,500 70	219	467	1,867	(18,760)
2015	102,918	50.0%	51,459		1,971 4.2	1,937 1.3			11,000 44.6	1,800 12.4		172 2.7	350 3.7	3,400	868 8	7,500 67	225	467	1,867	(19,903)
2016	105,405	50.0%	52,702		2,018 3.6	1,984 0.7			11,000 41.2	1,800 11.9		176 2.7	350 3.6		836 7	7,500 64	230	467	1,867	(24,474)
2017	107,951	50.0%	53,976		2,067 3.0	C			11,000 37.8	1,800 11.3		180 2.6	350 3.5		805 6	7,500 61	236	467	1,867	(27,704)

Note: Assuming Antelope Valley, Lancaster, and Bradley Landfills received all operating permits for expansion and export to Simi Valley, El Sobrante, and Orange County Landfills at current levels
Source: Puente Hills Landfill Annual Report, November 2004.
C = Expected closure
P = Permitted capacity

Table 4.I: Disposal Facilities Used for Solid Waste Generated within Los Angeles County in 2000

Facility	County of Location	Service Provider	Waste Generated from LA County	LA's Percentage of Total Disposal at Facility	Waste Generated Outside of LA County
LA County Sanitation District Facilities					
Calabasas Sanitary Landfill	Los Angeles	LACSD	305,354 tons	86.5%	41,335 tons (Ventura)
Puente Hills Landfill	Los Angeles	LACSD	3,635,941 tons	99.7%	10,129 tons
Scholl Canyon Sanitary Landfill	Los Angeles	LACSD	424,837 tons	100%	0
Commerce Refuse-to-Energy Facility	Los Angeles	LACSD	510,708 tons	Unknown	Unknown
Southeast Resource Recovery Facility	Los Angeles	LACSD		Unknown	Unknown
Other Facilities Utilized in LA County					
Antelope Valley Public Landfill	Los Angeles	Arklin Brothers Enterprises (owner/operator)	166,422 tons	100%	0
Bradley Landfill	Los Angeles	Waste Management (owner/operator)	2,340,599 tons	100%	0
Burbank Landfill	Los Angeles	City of Burbank	41,433 tons (generated in Burbank)	100%	0
Chiquita Canyon Landfill	Los Angeles	Republic Services of California (owner/operator)	1,314,544 tons	95.6%	60,000 tons
Whittier-Savage Canyon Landfill	Los Angeles	City of Whittier	87,947 tons	100%	0
Pebbly Beach Disposal Site	Los Angeles	City of Avalon	2,963 tons	100%	0
San Clemente Island Landfill	Los Angeles	San Clemente Island Landfill (private)	1,467 tons	100%	0

Facility	County of Location	Service Provider	Waste Generated from LA County	LA's Percentage of Total Disposal at Facility	Waste Generated Outside of LA County
Sunshine Canyon	Los Angeles	Browning-Ferris Industries (owner/operator)	1,485,833 tons	100%	0
Lancaster Landfill	Los Angeles	Waste Management (owner/operator)	150,651 tons	97.3%	4,118 tons
Other Facilities Utilized Outside of the County					
Frank R. Bowerman Landfill	Orange	County of Orange	285,016 tons	13.6%	1,809,815 tons
Olinda Alpha Sanitary Landfill	Orange	County of Orange	378,425 tons	19.2%	1,550,261 tons
Prima Deshecha Sanitary Landfill	Orange	County of Orange	19,753 tons	2.7%	704,401 tons
Arvin Sanitary Landfill	Kern	County of Kern	5,941 tons	8%	65,792 tons
Simi Valley Landfill	Ventura	Waste Management (owner/operator)	84,490 tons	14.5%	497,287 tons

Source: www.ciwmb.ca.gov. All data is from 2000, which is the most recently posted.

The California Integrated Waste Management Board's (CIWMB) Web site indicates that 12,748,153 tons of solid waste was generated within Los Angeles County in 2000. Of this waste, 510,708 tons, or 4 percent, were disposed of (burned) in waste-to-energy facilities and the remaining 12,237,445 tons was disposed of in landfills. The CIWMB data indicates that 94 percent of the solid waste that was generated within Los Angeles County was disposed of within the County and that 6 percent of the solid waste was disposed of in other Counties. Most of this waste was disposed of in Orange County (5 percent). The remaining solid waste was disposed of in the following Counties: Solano, Stanislaus, Kern, San Bernardino, and Ventura.

The Los Angeles County Sanitation Districts' facilities disposed of 4,876,840 tons (or 38.3 percent) of solid waste that was generated within the County in 2000. Of the remaining waste, which was generated and disposed of within the County, 132,343 tons was disposed of by other public agencies, and 5,459,516 tons, or 42.8 percent of all the waste generated within the County, was disposed of by privately owned facilities.

5.0 DETERMINATIONS FOR THE LOS ANGELES COUNTY SANITATION DISTRICTS

The Service Review guidelines prepared by the State Office of Planning and Research recommend that issues relevant to the jurisdiction be addressed through written determinations called for in the Act. Based on the above information, following are the written determinations for the Los Angeles County Sanitation Districts.

5.1 INFRASTRUCTURE NEEDS AND DEFICIENCIES

Purpose: To evaluate the infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities, and service quality.

1. The Districts prepare wastewater facility plans, as needed, to provide for capital expansions and technology upgrades to accommodate projected growth and to meet increasing regulatory requirements.

2. The Districts conduct capital improvement on an ongoing basis for rehabilitation and upgrade projects. This is implemented on a project-by-project basis by each District through a ten-year capital improvement program.

3. All of the Districts' wastewater treatment plants have adequate capacity to handle current and near future flows. In addition, most treatment plants have historically remained in full compliance with their discharge requirements. This is indicative of adequate infrastructure.

4. The Districts' wastewater system is dependent upon the ability to dispose of treated effluent. The JWPCP's effluent tunnel and outfall system, is currently operating near capacity, therefore, the Districts plan to construct a new outfall system to ensure necessary capacity will be available. Effluent disposal is also an ongoing issue for the Antelope Valley and Santa Clarita area Districts.

5. The Lancaster WRP's reclaimed water seasonally overflows into Rosamond Dry Lake, which is not authorized by Edwards Air Force Base and is a violation of the Waste Discharge Requirements. Upgrades, which are included within the District 14's recent Facilities Plan, provide that all effluent overflows onto Rosamond Dry Lake will be eliminated after April 2009.

6. The Puente Hills Landfill Annual Report states that the County is facing a potentially large landfill capacity shortfall. The Districts should continue their efforts to expand recycling, secure additional disposal capacity, and support research of alternative solid waste disposal facilities. This projected shortfall does not include the Eagle Mountain or Mesquite Regional Landfill. The Waste-By-Rail system is planned to be fully functional by 2010. With

implementation of this system, the County would be able to meet the projected demands for service.

7. A Master Plan for the Mesquite Regional Landfill has been completed. The Sanitation Districts expect the landfill to be in operation by 2009.

8. Environmentally sound refuse-to-energy facilities can assist the County in both producing power and by providing disposal for solid waste. The continued operation of these facilities will be part of the solution to the County's future solid waste disposal issues.

5.2 GROWTH AND POPULATION

Purpose: To evaluate service needs based upon existing and anticipated growth patterns and population projections.

1. Past and future projected growth varies greatly through out the different geographical areas of the County.

2. The Districts have expanded and will continue to expand their wastewater facilities to meet the demand associated with growth. Such expansions will continue to enable the service areas to meet federal and state water quality standards and increase the available amount of reclaimed water.

3. The Districts utilize SCAG projections for sizing facilities and anticipating needed expansions. Utilizing SCAG projections within facility plans and loan applications is also a requirement of obtaining SRF funds.

4. Historically, the Districts have noticed some discrepancy in SCAG's projections and the level of growth that actually occurs. In order to meet service needs as they occur and to avoid expenditures before they are necessary, facility expansions are phased over time.

5. The Districts have a development monitoring system that tracks development and plans for additional demand.

6. The Districts work in cooperation with developers who are building sewers in previously undeveloped/unserved areas to ensure proper sizing of facilities to meet future growth needs.

7. The Districts may be able to assist water purveyors in meeting the demands of growth using the increased amounts of reclaimed water that would be available from increased wastewater treatment.

5.3 FINANCING CONSTRAINTS AND OPPORTUNITIES

Purpose: To evaluate a jurisdiction's capability to finance needed improvements and services.

1. Over 80 percent of the Districts operating revenue is derived from wastewater service charges, industrial waste surcharges, and solid waste tipping fees.

2. The Districts also generate revenue from the sale of reclaimed water, biosolids, excess energy that is produced at JWPCP, and leased properties that are not currently needed for District operations. These provide financing opportunities.

3. The Districts' Financial Policy provides that costs related to additional infrastructure resulting from growth should be borne by new users.

4. The Districts have over $525 million in revenue bonds, general obligation bonds, and loans outstanding, which are a result of financing capital projects and upgrades.

5. The Districts bonds are rated AA by Standard & Poor's Corporation and Aa by Moody's Investor Service. This provides the Districts excellent opportunities for additional financing.

6. Due to the transfer of ownership of facilities to a private company, the Districts will receive financial benefits from tax credits because of using landfill gas. The Districts will receive approximately $37 million, plus interest, by the year 2008.

5.4 COST AVOIDANCE OPPORTUNITIES

Purpose: To identify practices or opportunities that may help eliminate unnecessary costs.

1. The Joint Administration Agreement results in a large cost savings for all of the Districts in that it provides for the consolidation of responsibilities and maximizes common resources.

2. The interconnection of the Districts' facilities and the Districts' numerous cooperative agreements are all cost savings opportunities that are utilized by the Districts.

3. The Districts provide in house engineering, design, planning, and laboratory functions. This saves the cost of contracting for services that are constantly needed by the Districts.

4. The Districts aggressively pursue funding for capitol construction projects through the SRF loan program. This program provides a cost savings because the interest rate is equal to one-half of the State's current general obligation bond rate.

5. The energy produced at JWPCP supports the facility. This saves the Districts the cost of energy.

6. The Puente Hills Landfill Gas to Energy Facility produces natural gas, which is used to fuel some of the Districts' vehicles. This not only saves fuel costs, but also utilizes this resource.

7. The Districts have developed a low cost biological odor control treatment process that minimized the need to purchase and handle chemicals.

5.5 OPPORTUNITIES FOR RATE RESTRUCTURING

Purpose: To identify opportunities to impact rates positively without decreasing service levels.

1. The Districts' on-going cost control policies have allowed both wastewater and solid waste rates to increase slowly and remain competitive when compared to similar agencies. The Districts have prided themselves on providing reliable service at inexpensive rates.

2. Although service charge increases will be required (and are planned) for both wastewater and solid waste services, Districts should continue to be able to maintain low rates in comparison with similar agencies.

3. The Districts rates for services are analyzed annually concurrent with the budget adoption process.

5.6 OPPORTUNITIES FOR SHARED FACILITIES

Purpose: To evaluate the opportunities for a jurisdiction to share facilities and resources to develop more efficient service delivery systems.

1. The Districts' current cooperative agreements are extensive and encompass most of the facilities, services, equipment, and personnel that the Districts utilize to provide services. These opportunities that the Districts have utilized have largely benefited the both the Districts and its customers by providing streamlined, efficient, and lower cost services.

2. The Districts are eager to pursue cooperative arrangements to utilize the Districts' reclaimed water.

3. The Districts are planning to continue to pursue any additional opportunities for shared facilities, programs, and resources.

5.7 GOVERNMENT STRUCTURE OPTIONS

Purpose: To consider the advantages and disadvantages of various government structures to provide public services.

1. Overall, it is reasonable to conclude that wastewater and solid waste services can continue to be provided by the Sanitation Districts under the existing government structure.

2. Districts 26 and 32 have recently completed a consolidation, which will be effective July 1, 2005. The consolidation was initiated to provide for a more efficient operation, lower administrative costs, and elimination of duplicative staffing.

3. LAFCO is in the process of eliminating joint or overlapping spheres of influence of agencies throughout the County. Districts 18 and 21 should examine, which District would more efficiently serve this area when development occurs and should pursue a detachment of one of the spheres. The most efficient provision of service to this area would be through a service

contract with the Orange County Sanitation District. Either of these Districts could pursue this contract for services.

4. Per District 14's Facility Plan, the east and west boundaries of the District's sphere of influence represent both the District's ultimate service boundary and the probable extent to which gravity flow sewers could both economically and satisfactorily perform.

5. A couple of constraints exist in the use of recycled water. Potential ways to mitigate constraints and implement water recycling include: local agencies requiring developers to construct dual piping to accommodate recycled water and legislation to allow Districts to provide treated water and/or encourage cooperative low-cost arrangements with water purveyors.

6. Sanitation Districts 14 and 32 provide wastewater services to significant contracts outside their boundaries. The contracts provide for services to two regional prison facilities The Districts have stated that it would not make sense for these areas to be annexed into the respective District's boundaries. The contract for service allows the funding for wastewater services to be obtained through the larger regional area, which the facilities serve. The contracts also provide adequate funding to pay for services in addition to needed upgrades and maintenance to infrastructure.

5.8 EVALUATION OF MANAGEMENT EFFICIENCIES

Purpose: To consider the management structure of the jurisdiction.

1. The structure of the District is efficient because it provides for centralized administration and project implementation. Additionally, all of the Districts' facilities are owned, operated, and maintained by the Districts themselves. For example, the Districts do in-house design with direct input from the operations group, which is then carried out by the maintenance staff.

2. The Districts are the sole provider of regional wastewater services within their boundaries. Hence, there is no duplication of services with another provider.

3. The Districts have proven efficient and effective in its financial budgeting, for 18 years in a row, the Government Finance Officers Association of the United States has awarded the Districts a Certificate of Achievement for Excellence in Financial Reporting.

4. The Districts have received numerous awards. This is indicative of an efficiently managed organization.

5. The Districts have been able to achieve a high level of performance by focusing on preventative maintenance, appropriate levels of staffing, timely expansions, and aggressive utilization of low-cost funding (i.e. efficient management).

5.9 LOCAL ACCOUNTABILITY AND GOVERNANCE

Purpose: To evaluate the accessibility and levels of public participation associated with the agency's decision-making and management processes.

1. Each District is represented by local residents. The Districts hold regularly scheduled public meetings, pursuant to the Brown Act, that provide for resident participation.

2. As required under Proposition 218, public hearings that are associated with rate increases are noticed by individual mailers that are sent to each impacted property owner.

3. The Districts have historically made reasonable efforts to maintain a public dialogue regarding services and issues of concern to the communities. The Districts' outreach program includes an extensive website which is updated regularly, speaker program to provide information to civic and school groups, Citizen Advisory Committees, and publishing many different educational pamphlets and brochures.

6.0 REFERENCES

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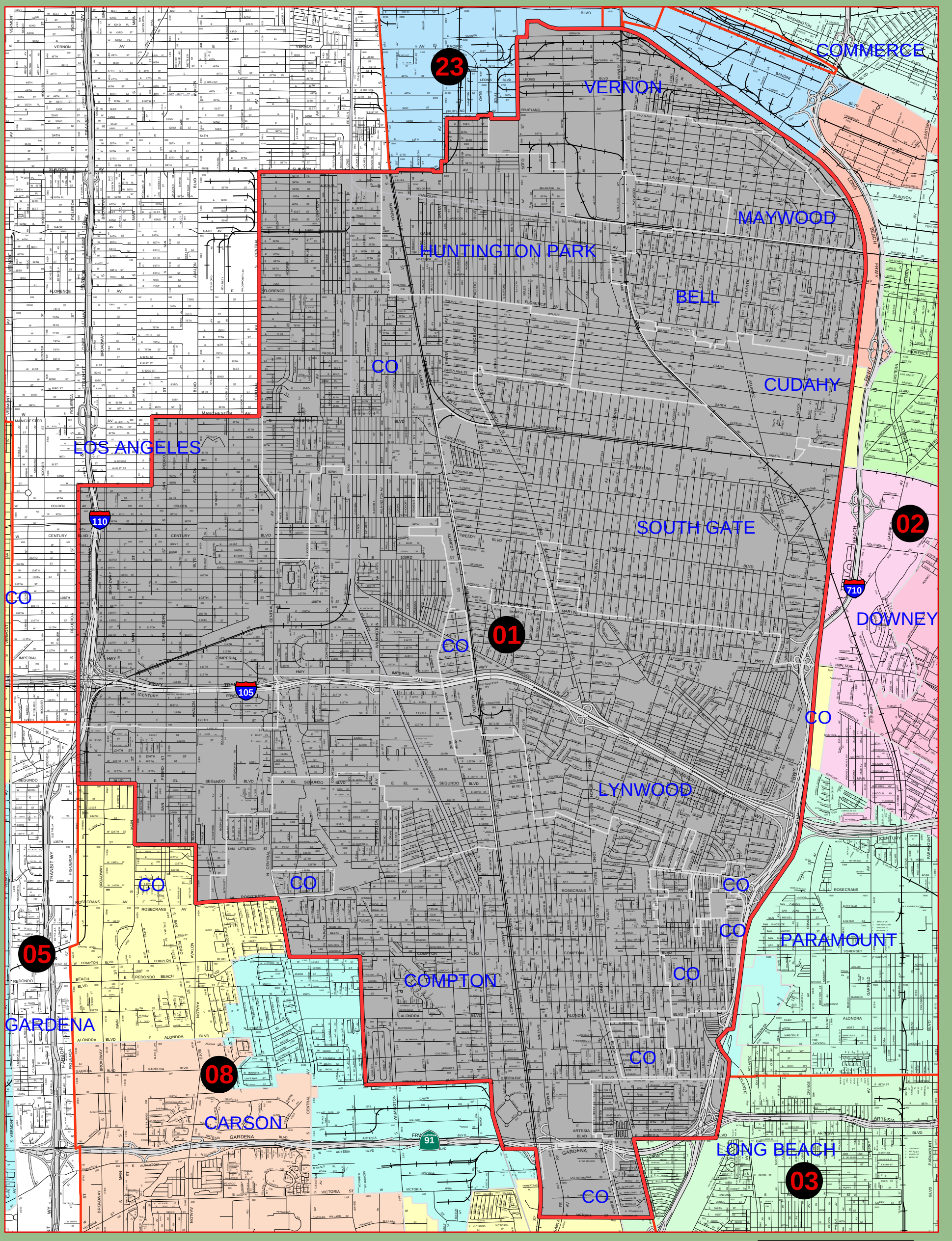
APPENDIX

BOUNDARY AND SPHERE OF INFLUENCE MAPS

County Sanitation District 1



Legend

- Roads, Thomas Bros.
- County Sanitation District 1
- SOI same as district boundary
- Other County Sanitation District Boundaries

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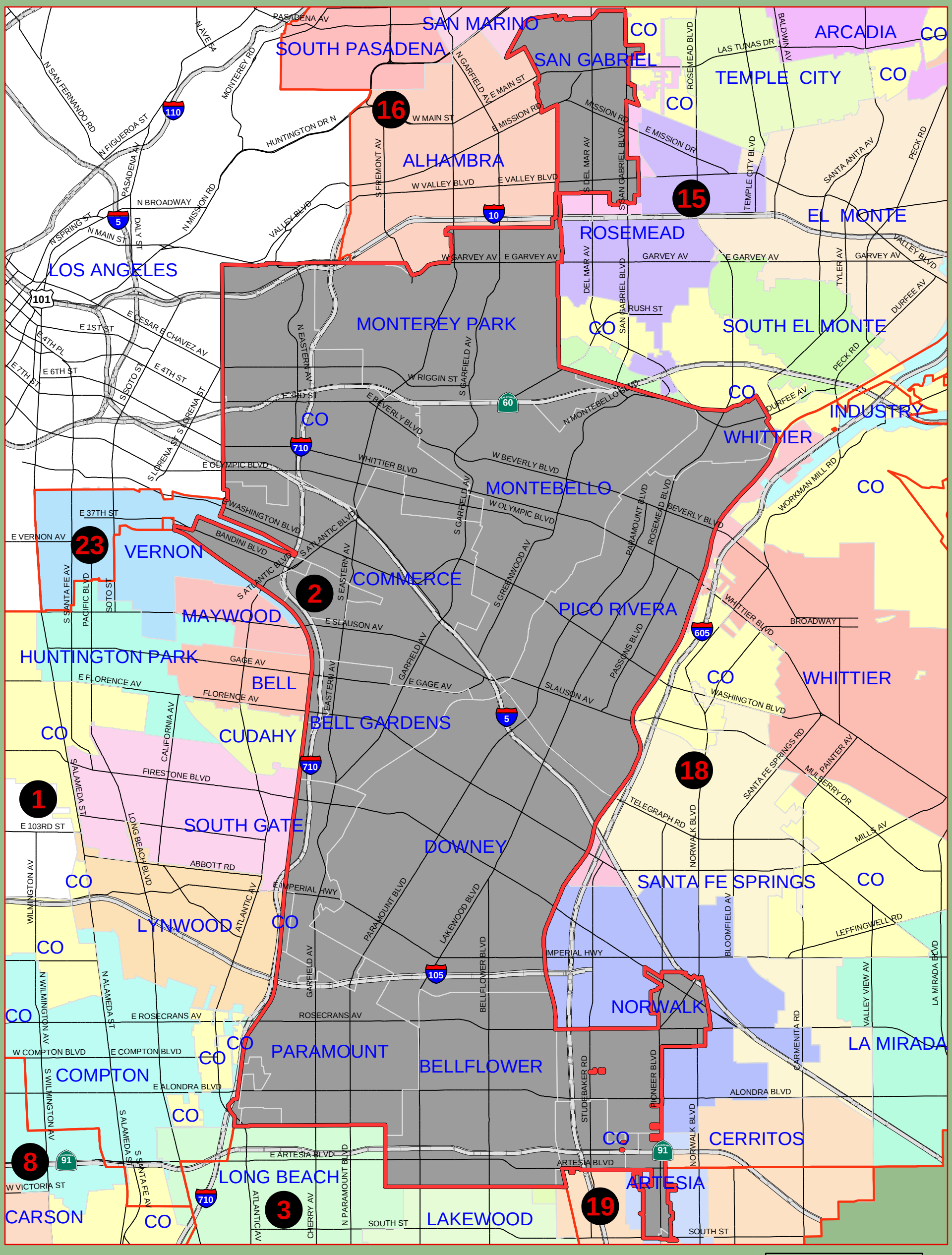
NORTH

LAFCO

July 3, 2003



County Sanitation District 2

Legend

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- Other County Sanitation District Boundaries

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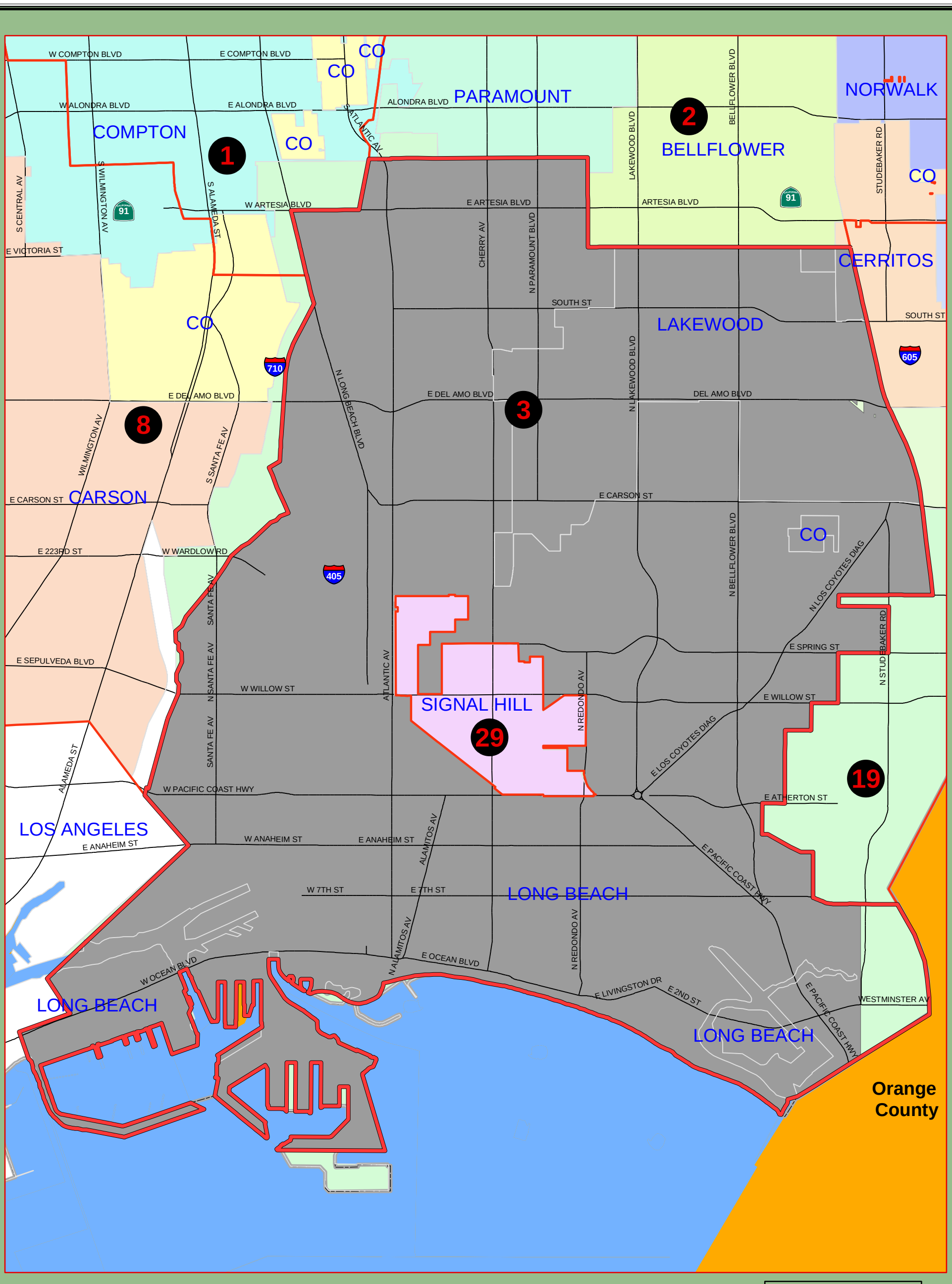
NORTH

LAFCO

July 3, 2003

County Sanitation District 3



Legend

- Roads, Thomas Bros.
- County Sanitation District 3
- Sphere of Influence, CSD 3
- Other County Sanitation District Boundaries

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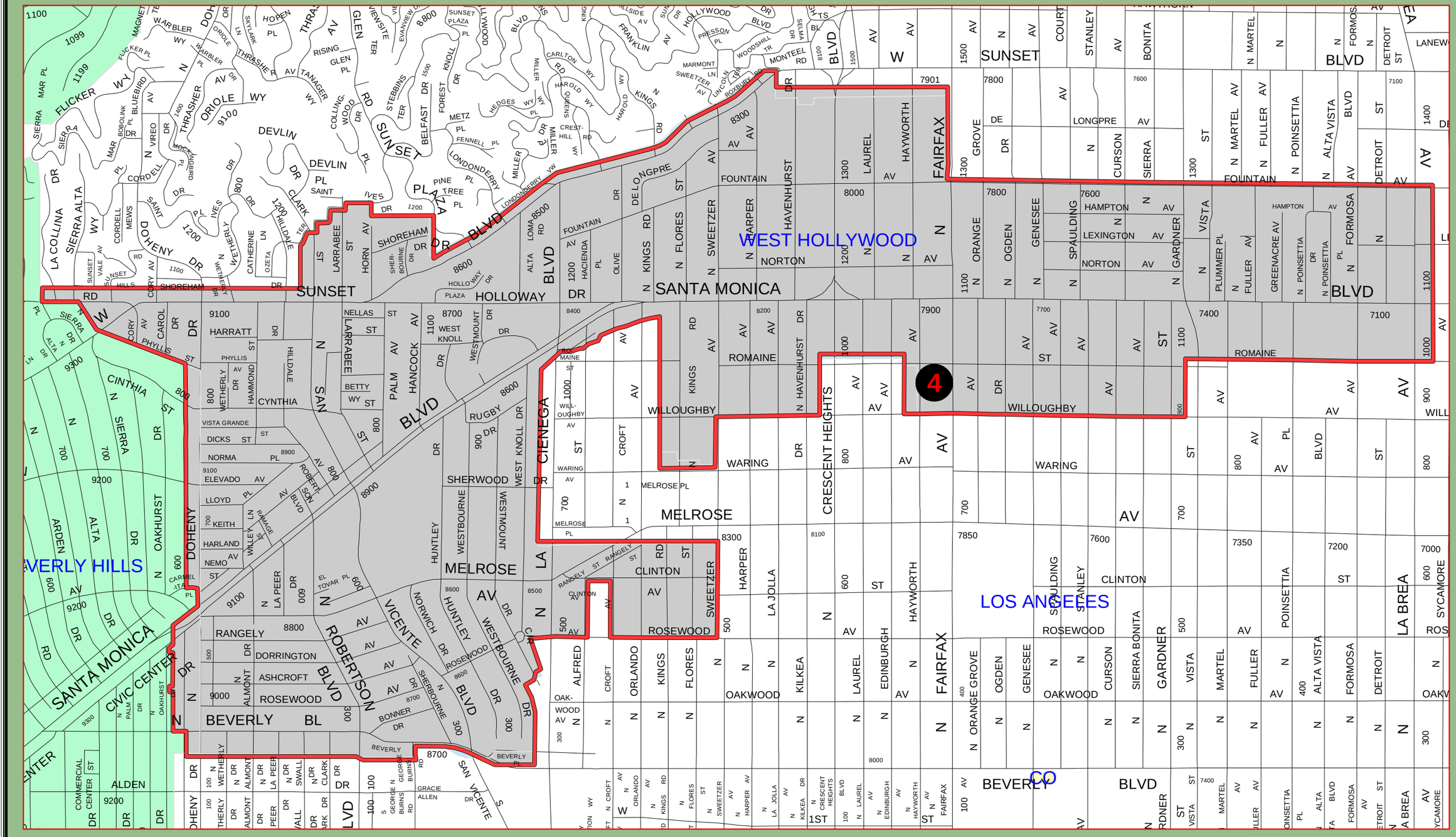
NORTH

LAFCO

July 14, 2003



Legend

Roads, Thomas Bros.

County Sanitation District 4
SOI same as district boundary

County Sanitation District 4

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NORTH

LAFCO

July 3, 2003

County Sanitation District 5

SANTA MONICA
CULVER CITY
CO
INGLEWOOD
LOS ANGELES
VERNON
HUNTINGTON PARK
SOUTH GATE
EL SEGUNDO
HAWTHORNE
GARDENA
MANHATTAN BEACH
LAWNDALE
COMPTON
HERMOSA BEACH
REDONDO BEACH
TORRANCE
CARSON
LONG BEACH
LOMITA
PALOS VERDES ESTATES
ROLLING HILLS ESTATES
ROLLING HILLS
RANCHO PALOS VERDES

STOCKER ST
W VERNON AV
E VERNON AV
S SOTO ST
LINCOLN BLVD
VENICE BLVD
WASHINGTON PL
CULVER BLVD
PACIFIC AV
WASHINGTON BLVD
W SLAUSON AV
E SLAUSON AV
COMPTON AV
S MAIN ST
CRENSHAW BLVD
W JEFFERSON BLVD
CENTINELA AV
N LA BREA AV
W FLORENCE AV
E FLORENCE AV
S VERMONT AV
S SANTA FE AV
PACIFIC BLVD
LA TIJERA BLVD
W MANCHESTER AV
W MANCHESTER BLVD
E FIRESTONE BLVD
S CENTRAL AV
AIRPORT BLVD
S SEPULVEDA BLVD
S FIGUEROA ST
W CENTURY BLVD
E CENTURY BLVD
E 103RD ST
AVIATION BLVD
S PRAIRIE AV
S WESTERN AV
W IMPERIAL HWY
E IMPERIAL HWY
VIS DEL MAR
S BROADWAY
S AVALON BLVD
N CENTRAL AV
N ALAMEDA ST
ROSECRANS AV
W ROSECRANS AV
E EL SEGUNDO BLVD
W EL SEGUNDO BLVD
HAWTHORNE BLVD
INGLEWOOD AV
N HIGHLAND AV
W COMPTON BLVD
W ALONDRA BLVD
405
110
105
91
103
47
REDONDO BEACH BLVD
ARTESIA BLVD
W ARTESIA BLVD
E VICTORIA ST
W VICTORIA ST
190TH ST
W 190TH ST
E DEL AMO BLVD
ANZA AV
TORRANCE BLVD
S NORMANDIE AV
S ALAMEDA ST
S SANTA FE AV
CARSON ST
W CARSON ST
E CARSON ST
W 223RD ST
E 223RD ST
S PACIFIC COAST HWY
S CATALINA AV
SEPULVEDA BLVD
W SEPULVEDA BLVD
E SEPULVEDA BLVD
WILMINGTON AV
PACIFIC COAST HWY
LOMITA BLVD
PALOS VERDES DR W
W LOMITA BLVD
E LOMITA BLVD
FIGUEROA ST
W PACIFIC COAST HWY
N AVALON BLVD
W ANAHEIM ST
HARRY BRIDGES BLVD
N GAFFEY ST
N PACIFIC AV
CREST RD
W 9TH ST
S GAFFEY ST
S PACIFIC AV
W 25TH ST
PASEO DEL MAR

23
01
05
08
30
03
09

Legend
- Roads, Thomas Bros.
- County Sanitation District 5
- Sphere of Influence, CSD 5
- Other County Sanitation District Boundaries

1:100,039
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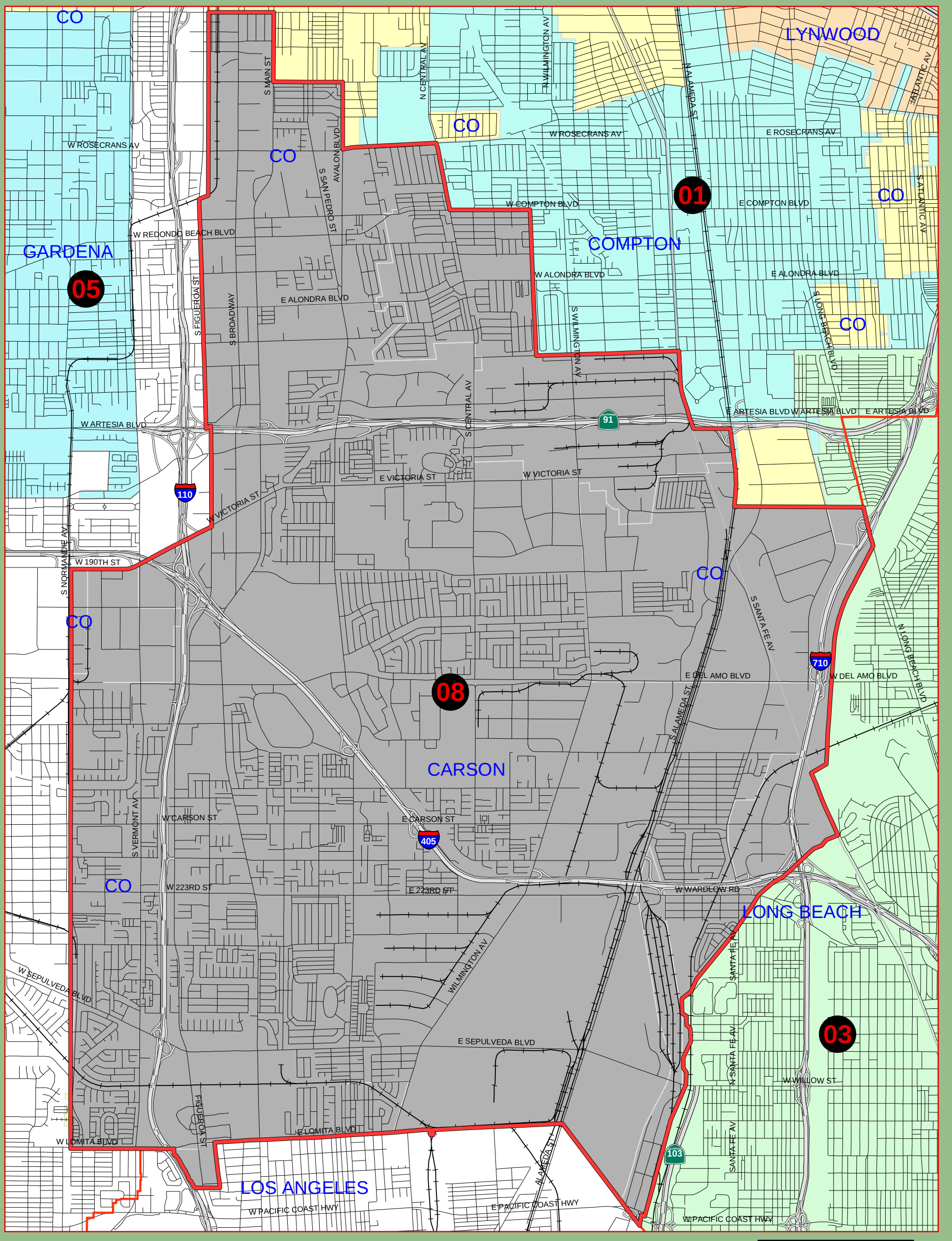
NORTH

LAFCO

July 19, 2003



County Sanitation District 8

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- Other County Sanitation District Boundaries

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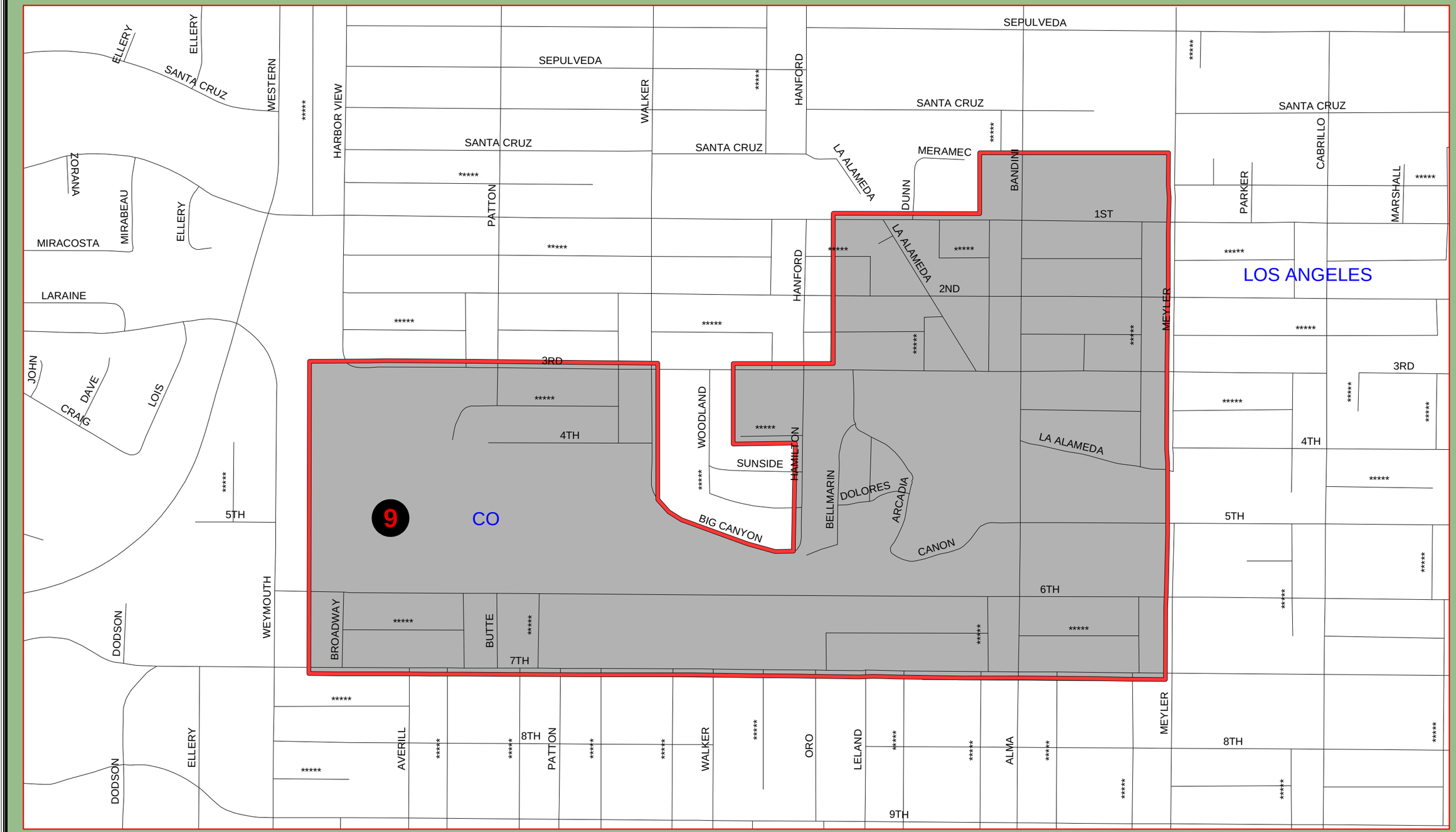
LAFCO

July 3, 2003

County Sanitation District 9



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NORTH

LAFCO

July 3, 2003

County Sanitation District 14

LAFCO
June 27, 2003

NORTH

1:125,000
0 1.25 2.5 5 Miles

Legend
- Roads, Thomas Bros.
- Coutny Sanitation District 14
- Sphere of Influence, Coutny Sanitation District 14
- Other County Sanitation District Boundaries

LANCASTER
PALMDALE
CO
14
20
AVE D
AVE F
AVE G
AVE H
AVE I
AVE J
AVE K
AVE M
LANCASTER BLVD
PALMDALE BLVD
RANCHO VISTA BLVD
LANCASTER RD
JOHNSON RD
ELIZABETH LAKE RD
BOUQUET CANYON RD
GODDE HILL RD
SIERRA HWY
DIVISION ST
90TH ST W
120TH ST W
110TH ST W
60TH ST W
50TH ST W
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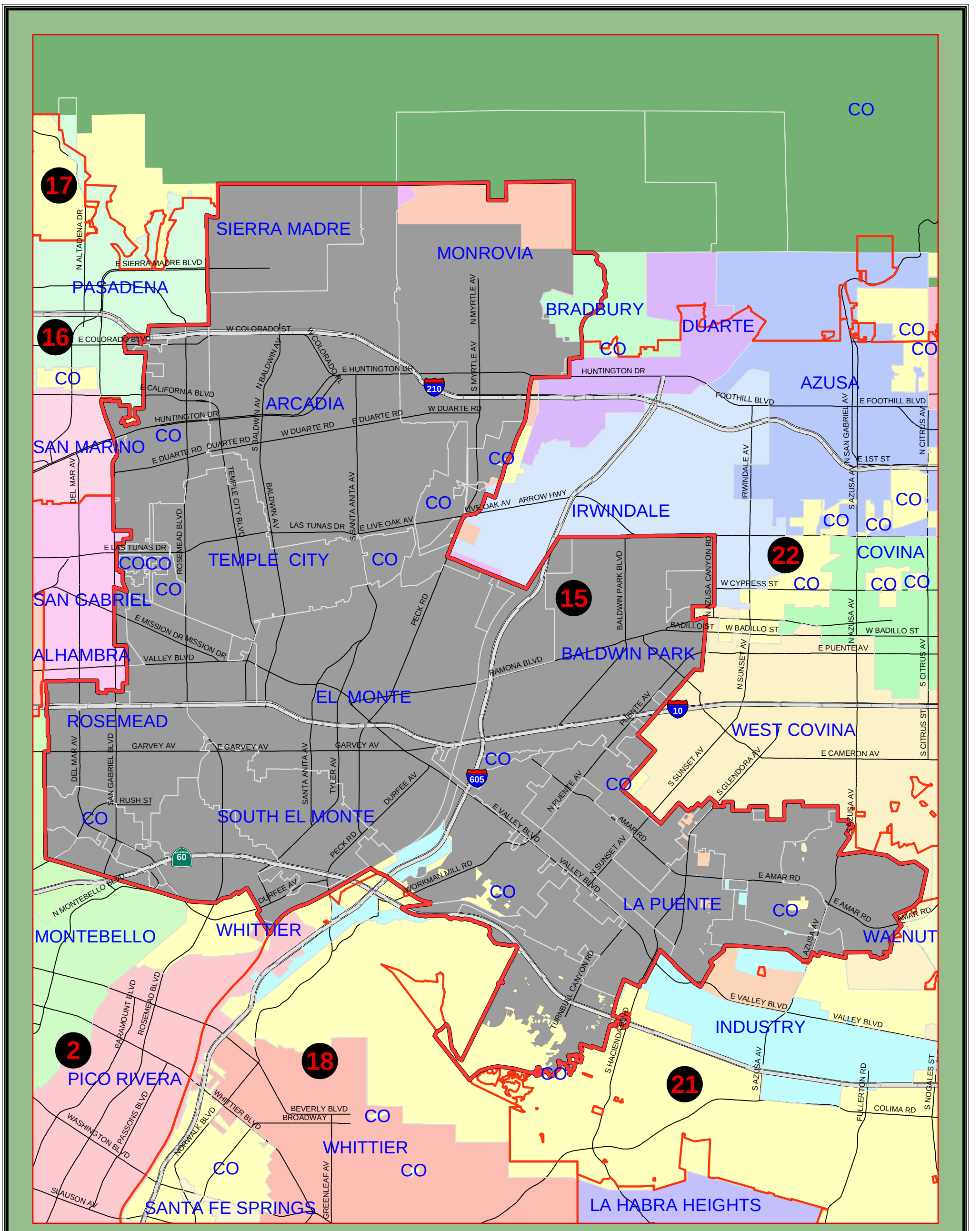
20TH ST W
50TH ST E
20TH ST E
70TH ST E
90TH ST E

County Sanitation District 15



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- Roads, Thomas Bros.
- County Sanitation District 15
- Sphere of Influence, CSD 15
- Other County Sanitation District Boundaries

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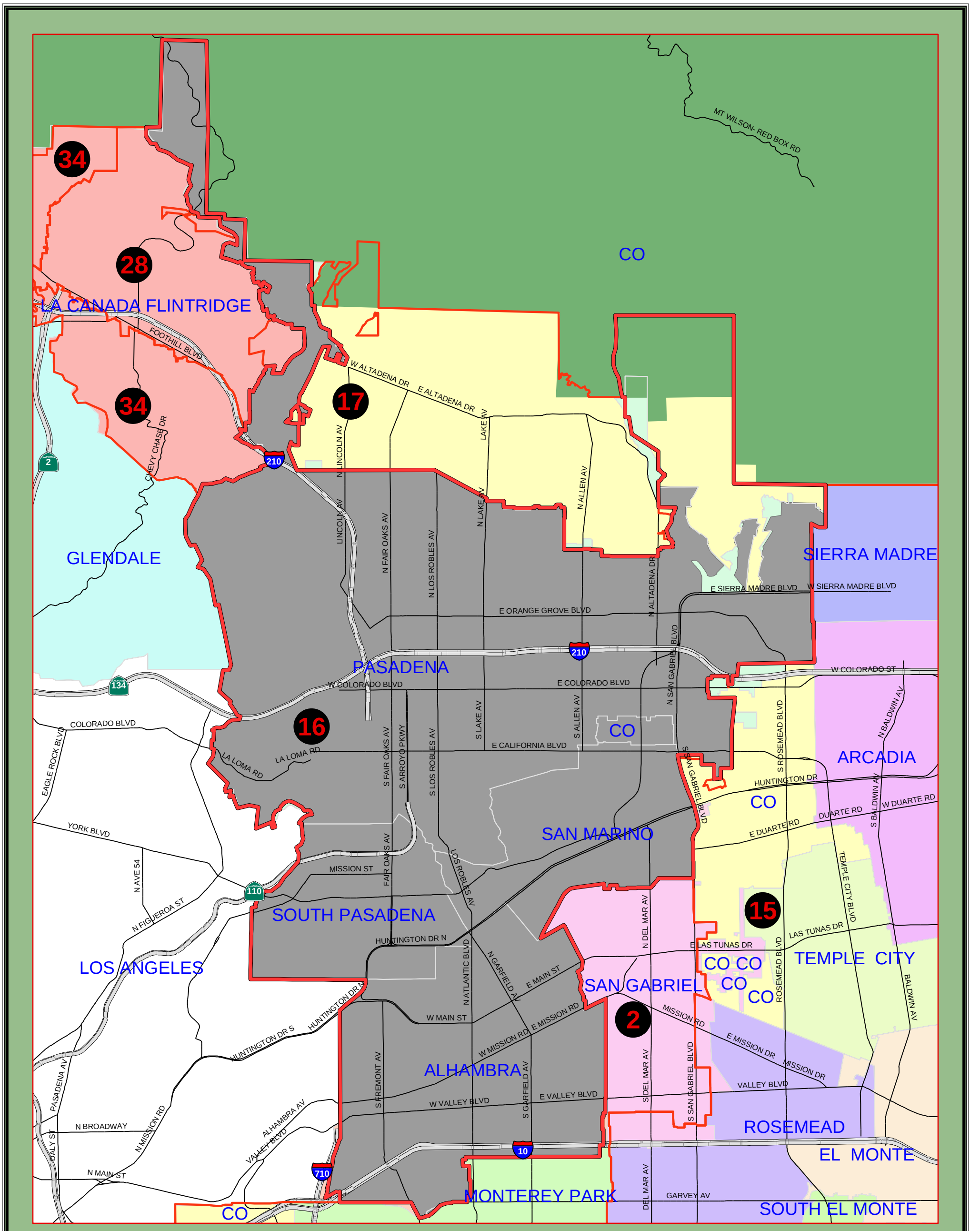
NORTH

LAFCO

July 14, 2003

County Sanitation District 16



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- Roads, Thomas Bros.
- County Sanitation District 16
- Sphere of Influence, CSD 16
- Other County Sanitation District Boundaries

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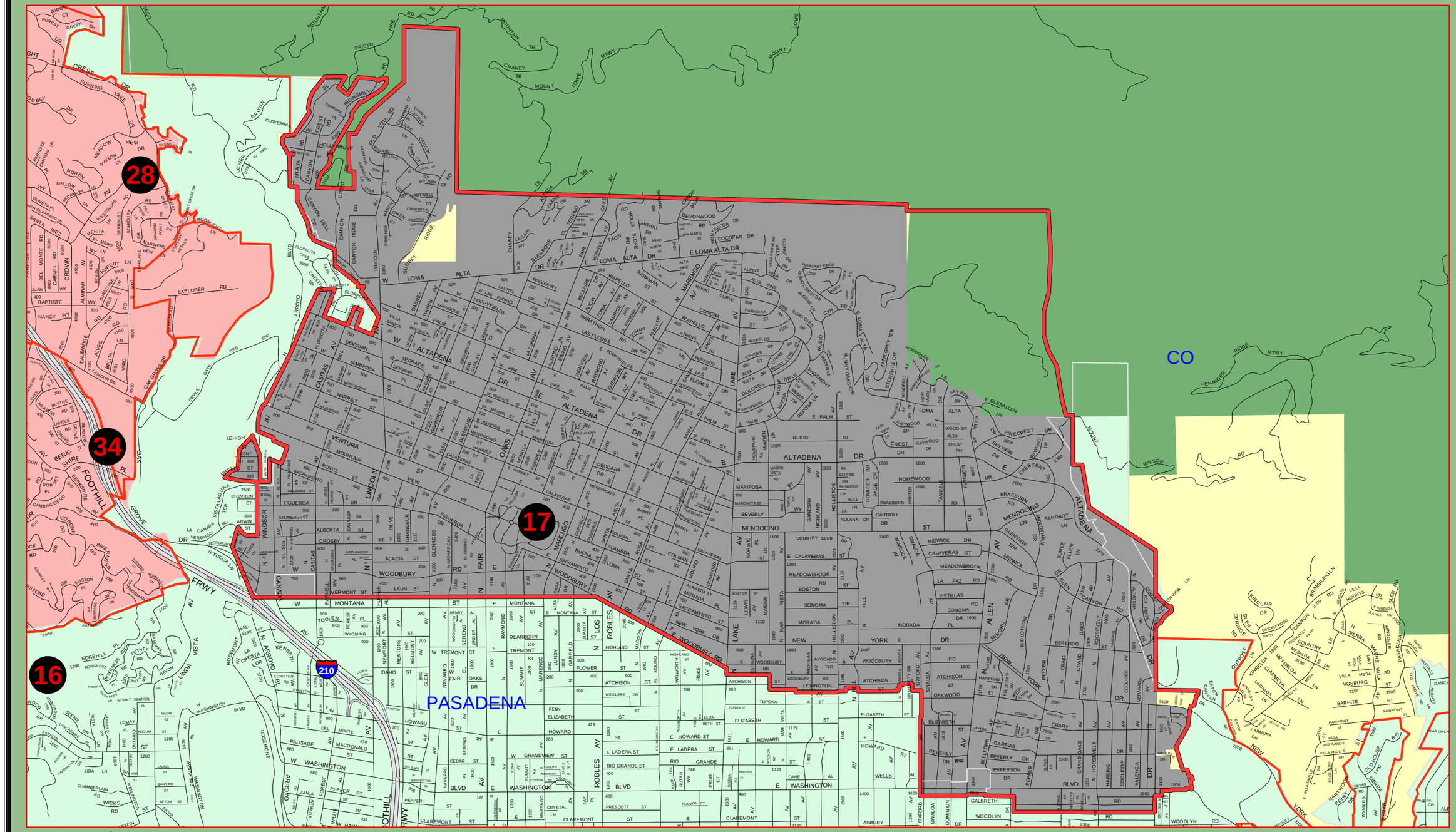
LAFCO

July 14, 2003

County Sanitation District 17



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- Roads, Thomas Bros.
- County Sanitation District 17
- Sphere of Influence, CSD 17
- Other County Sanitation District Boundaries

1:27,000

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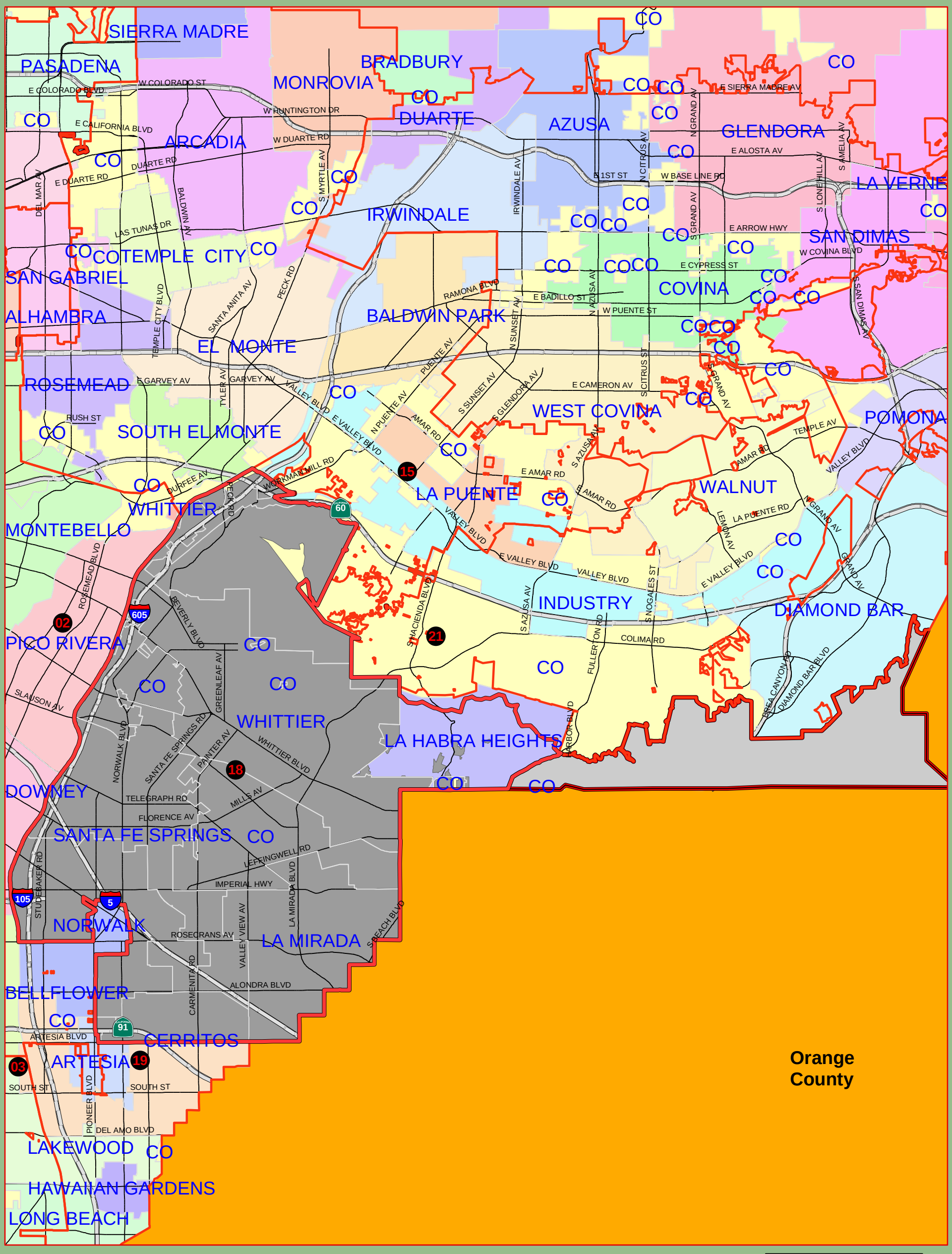
NORTH

LAFCO

July 14, 2003



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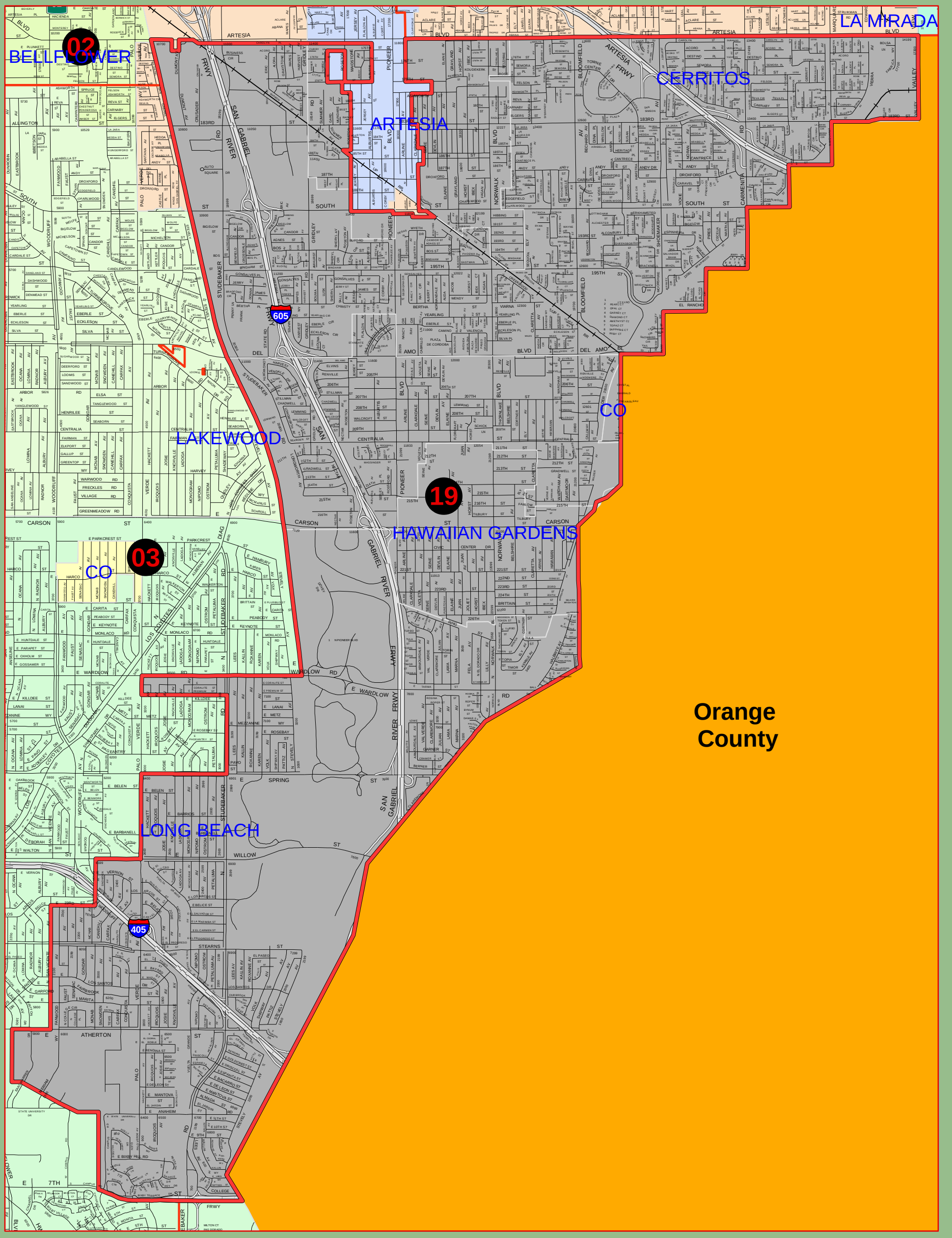

County Sanitation District 19

Legend

Roads, Thomas Bros.

Coutny Sanitation District 19
SOI same as district boundary

Other County Sanitation
District Boundaries

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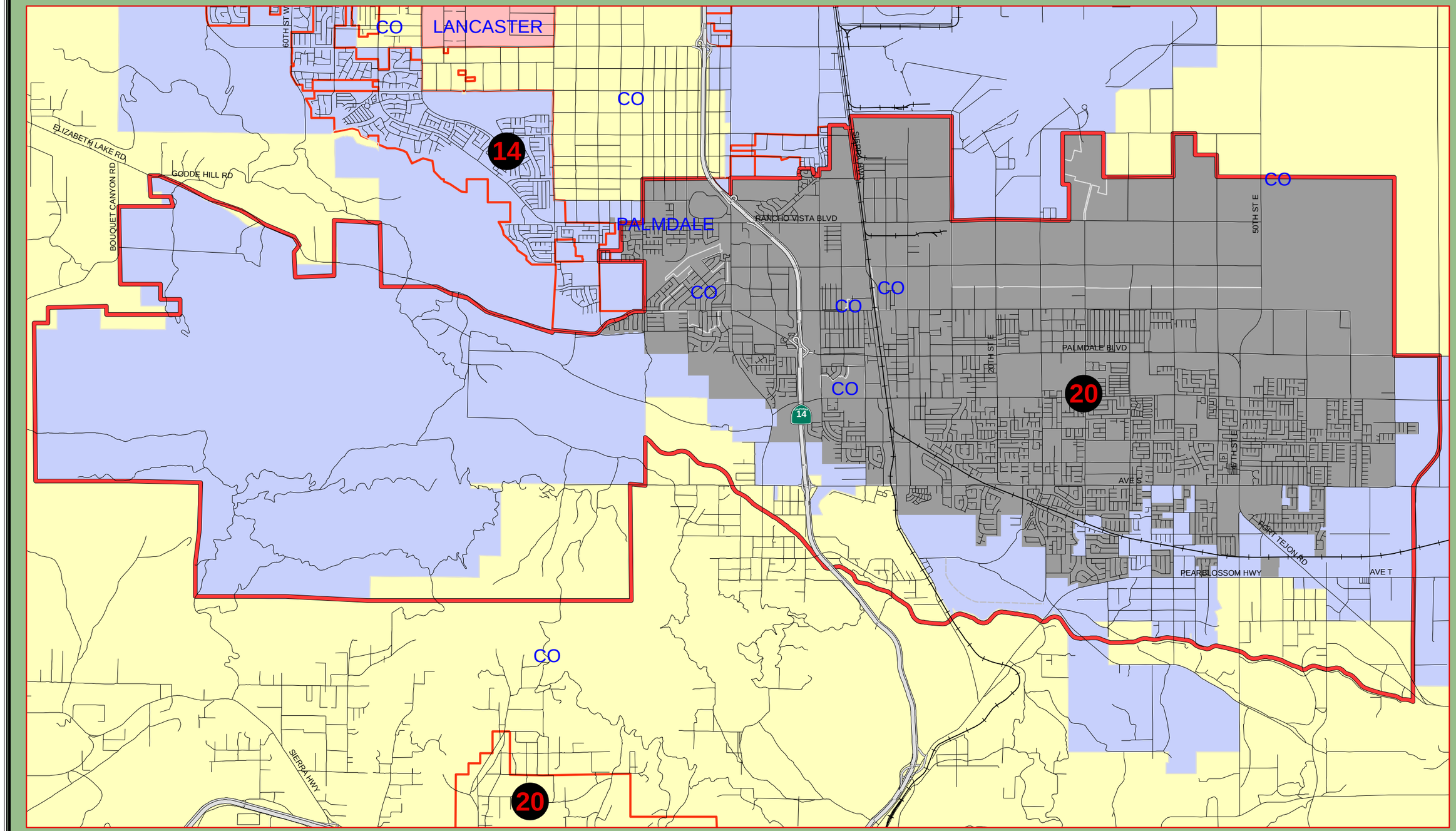
LAFCO

July 3, 2003



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- Sphere of Influence, CSD 20
- Other County Sanitation District Boundaries

County Sanitation District 20

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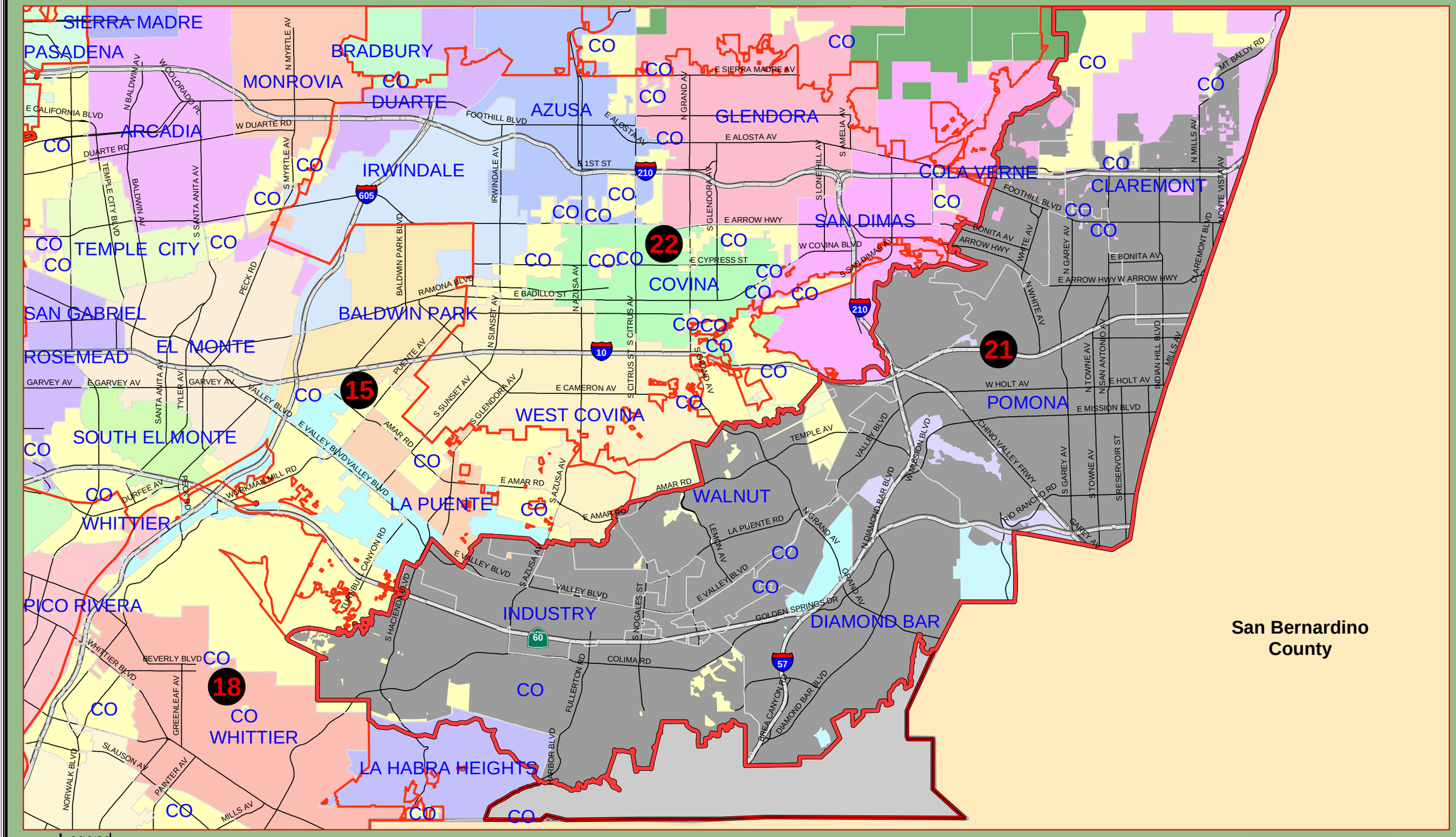
LAFCO

June 27, 2003

County Sanitation District 21



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- Sphere of Influence, CSD 21
- JOINT SOI, CSD 18 & 21
- Other County Sanitation District Boundaries

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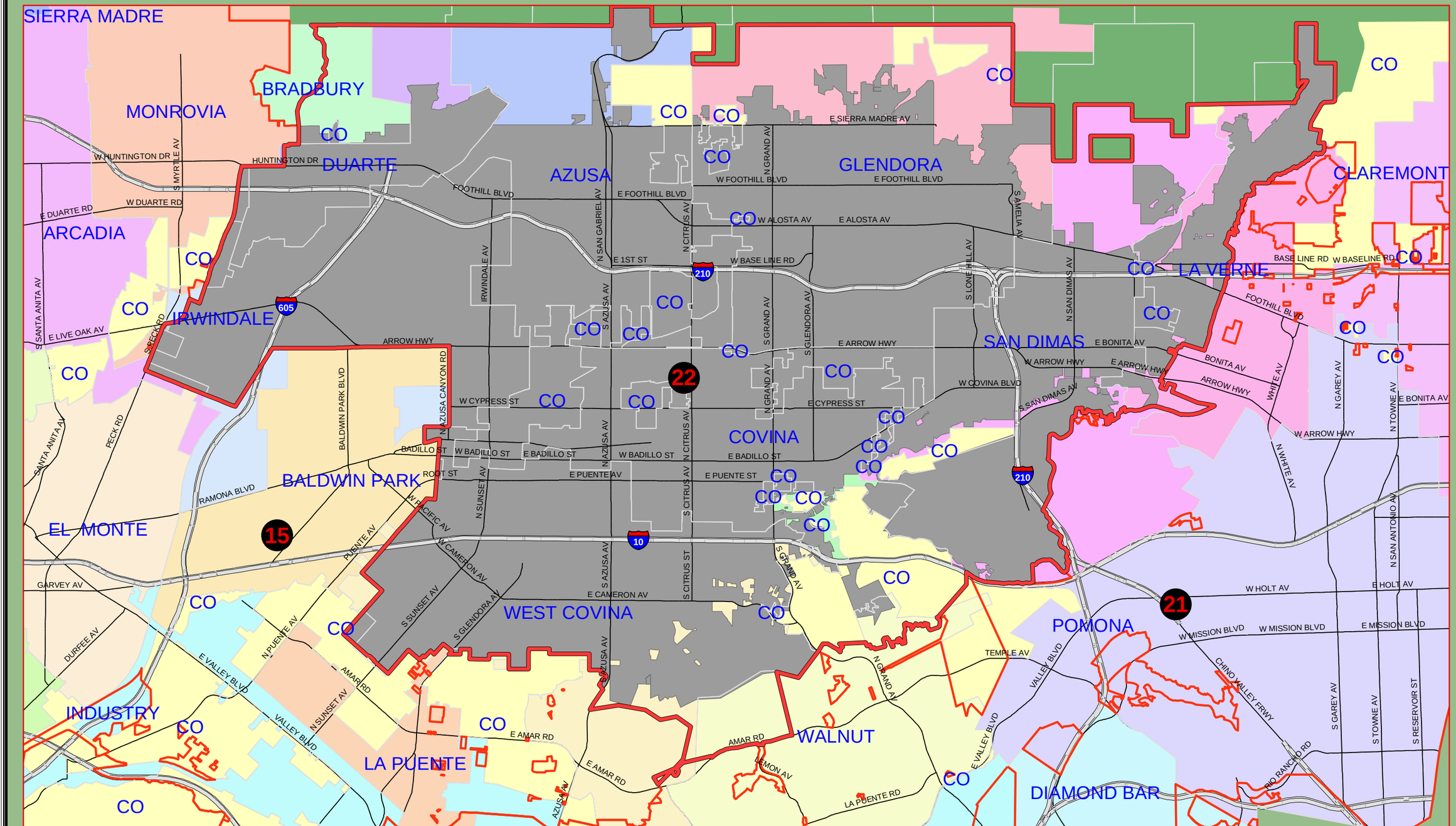
NORTH

LAFCO

July 14, 2003

County Sanitation District 22



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- Roads, Thomas Bros.
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- Sphere of Influence, CSD 22
- Other County Sanitation District Boundaries

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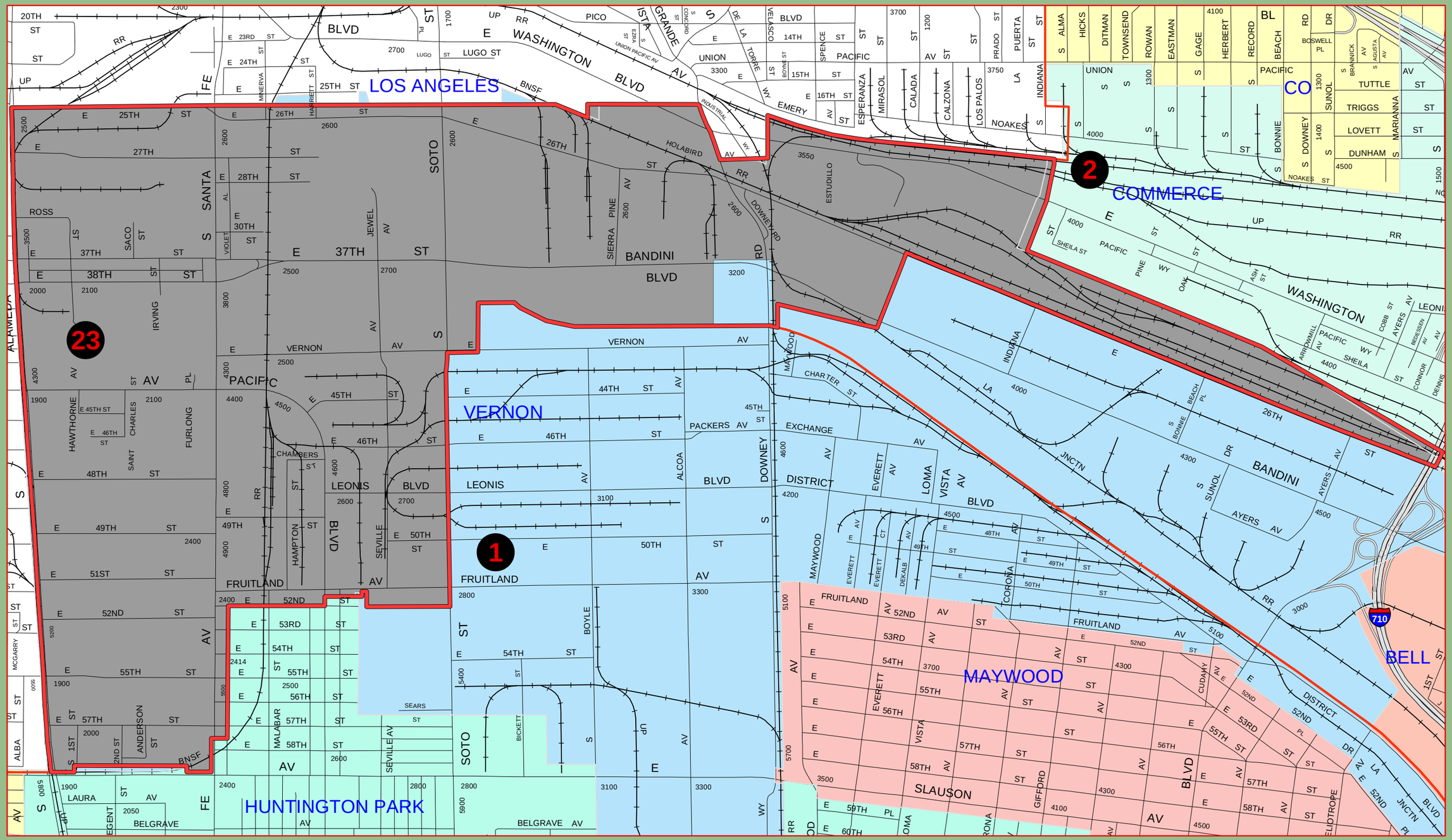
LAFCO

July 14, 2003



County Sanitation District 23

Legend

- Roads, Thomas Bros.
- County Sanitation District 23
- Sphere of Influence, CSD 23
- Other County Sanitation District Boundaries

1:16,000

0 0.125 0.25 0.5 Miles

NORTH

LAFCO

July 14, 2003

County Sanitation District 26

CO

SANTA CLARITA

26

32

SECO CANYON RD

BOUQUET CANYON RD

AGUA DULCE CANYON RD

SAND CANYON RD

SOLEDAD CANYON RD

SIERRA HWY

MAGIC MOUNTAIN PKWY

VALENCIA BLVD

MCBEAN PKWY

SAN FERNANDO RD

LYONS AV

Legend

- Roads, Thomas Bros.
- County Sanitation District 26
- Sphere of Influence, CSD 26
- Other County Sanitation District Boundaries

1:62,000

0 0.5 1 2 Miles

NORTH

LAFCO

June 27, 2003

TOPANGA CANYON
BROOKSIDE
CLIFFTOP
CO
27
SHOREHEIGHTS
SEAHORN
OCEANHILL
CLOUDCROFT
SURFWOOD
SANDY CAPE
BLUE SAIL
SURFVIEW
SEA REEF
SEA BREEZE
LOS ANGELES
KINGSPORT
SPRAY
CASTLEROCK
MALIBU VISTA
KINGSPORT
WAKECREST
COASTLINE
PACIFIC COAST
RODEO GROUNDS
SHADY
TOPANGA CANYON
GIARDINO
VICINO
TRAMONTO
CASTELLAMMARE
PORTO MARINA
LECCO
*****

County Sanitation District 27

Legend

Roads, Thomas Bros.

County Sanitation District 27
SOI same as district boundary

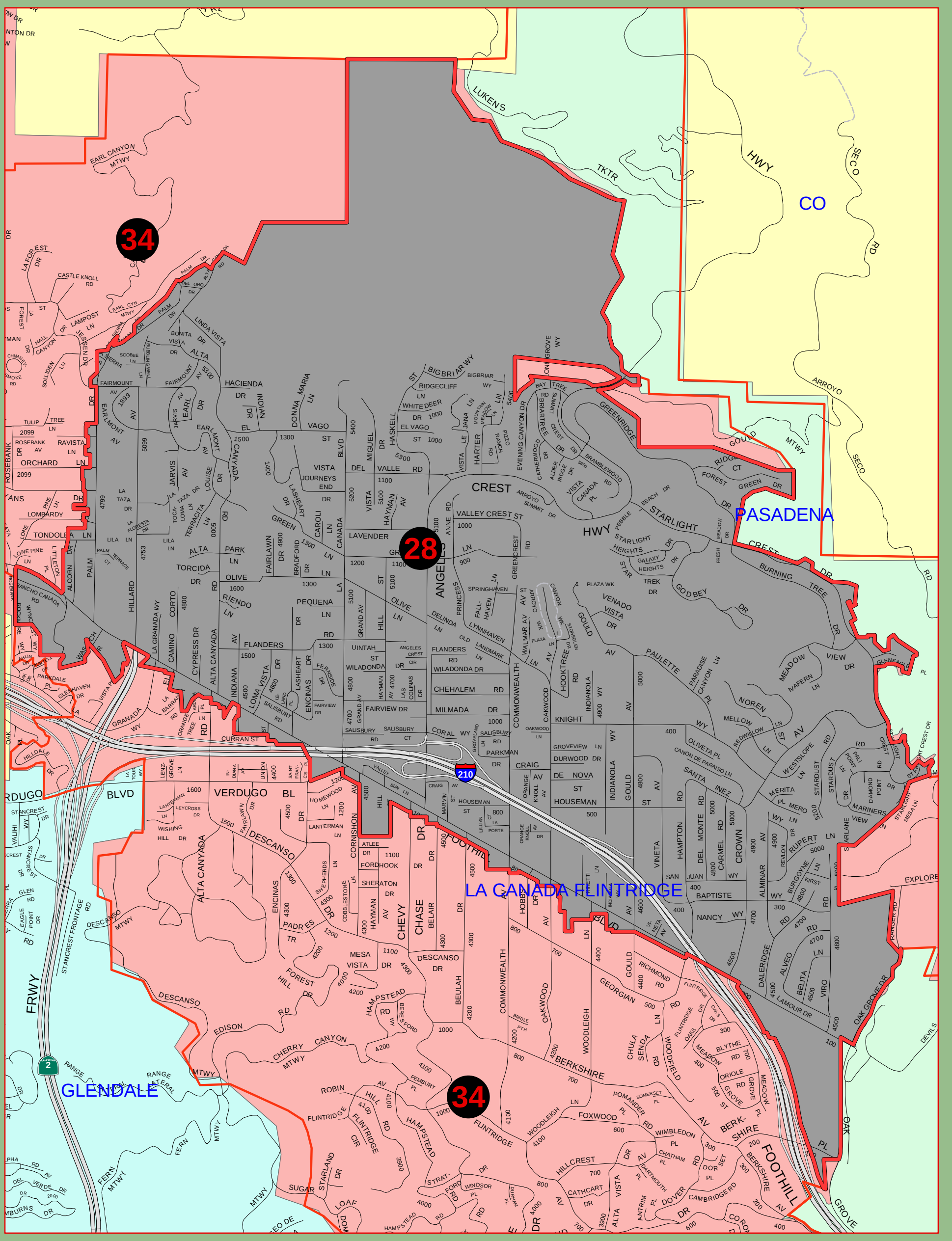
1:5,054

0 0.05 0.1 0.2 Miles

NORTH

LAFCO

July 7, 2003



County Sanitation District 28

Legend

- Roads, Thomas Bros.
- County Sanitation District 28 SOI same as district boundary
- Other County Sanitation District Boundaries

1:18,000

0 0.125 0.25 0.5 Miles

NORTH

LAFCO

July 7, 2003

LAKEWOOD

3

405

SIGNAL HILL

29

LONG BEACH

County Sanitation District 29

Legend

Roads, Thomas Bros.

County Sanitation District 29
SOI same as district boundary

Other County Sanitation
District Boundaries

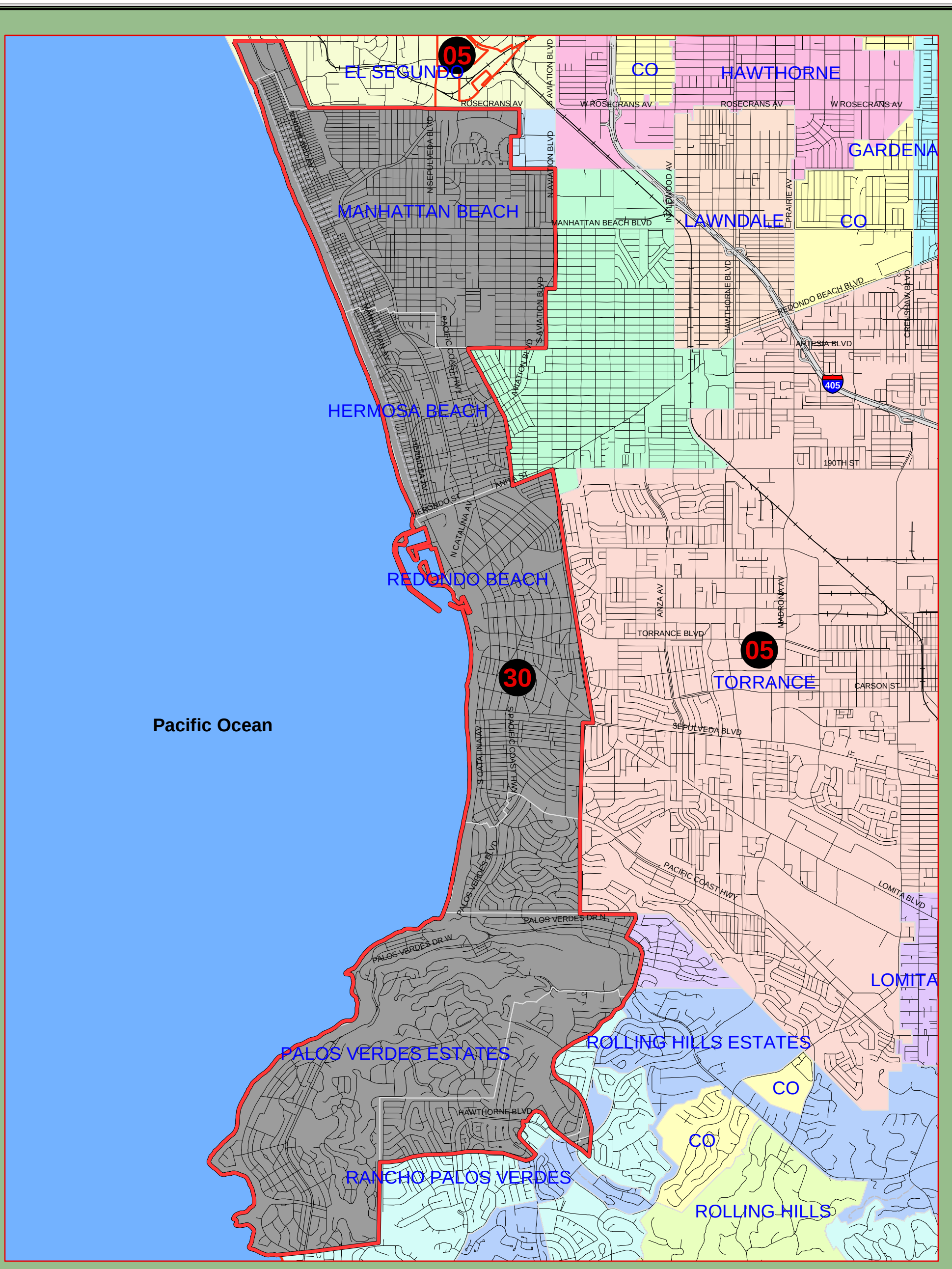
1:14,000

0 0.125 0.25 0.5 Miles

NORTH

LAFCO

July 3, 2003



County Sanitation District 30
South Bay Cities

Legend

- Roads, Thomas Bros.
- County Sanitation District 30 SBC
  SOI same as district boundary
- Other County Sanitation District Boundaries

1:50,000

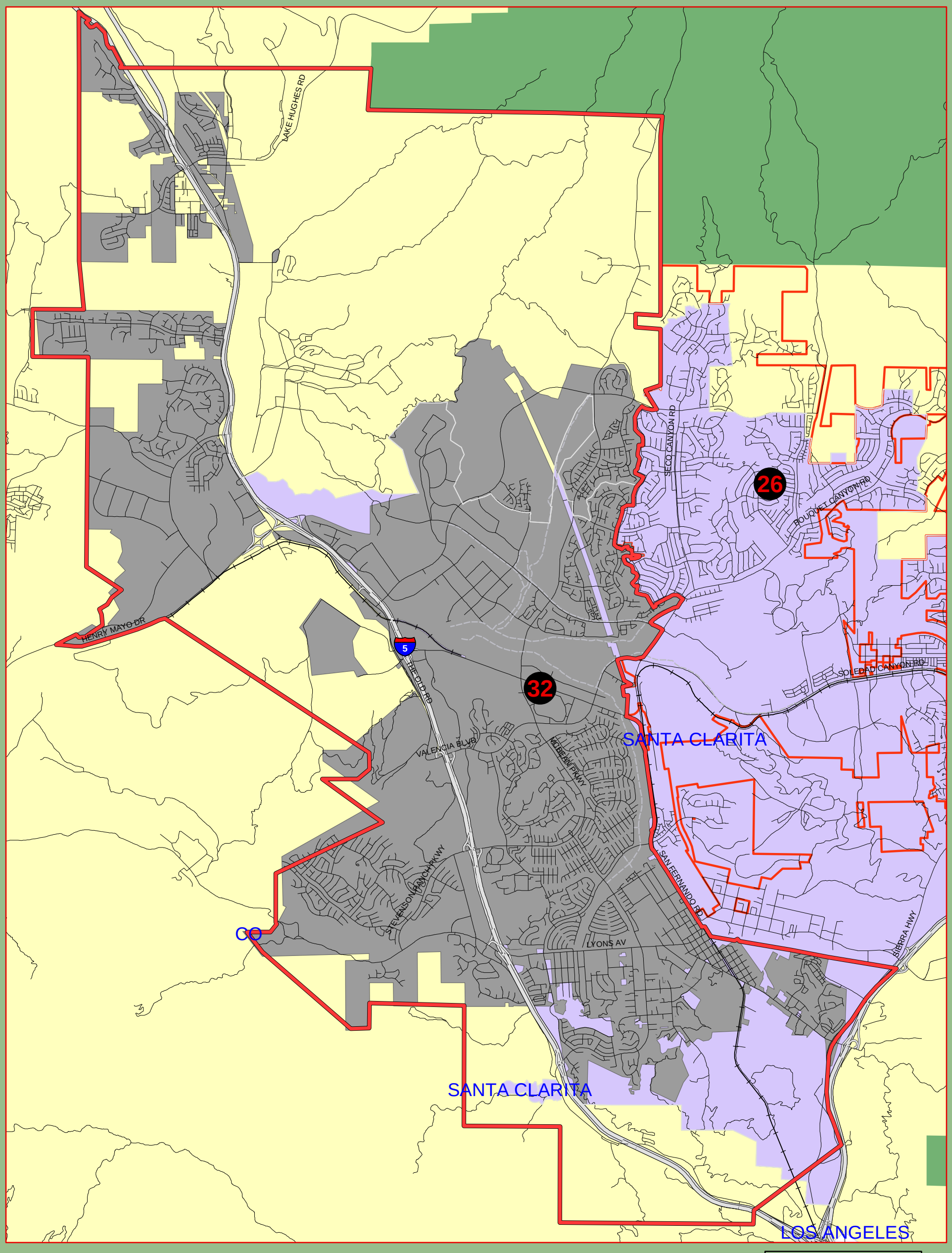
0 0.5 1 2 Miles

NORTH

LAFCO

July 3, 2003

County Sanitation District 32



Legend

- Roads, Thomas Bros.
- County Sanitation District 32
- Sphere of Influence, CSD 32
- Other County Sanitation District Boundaries

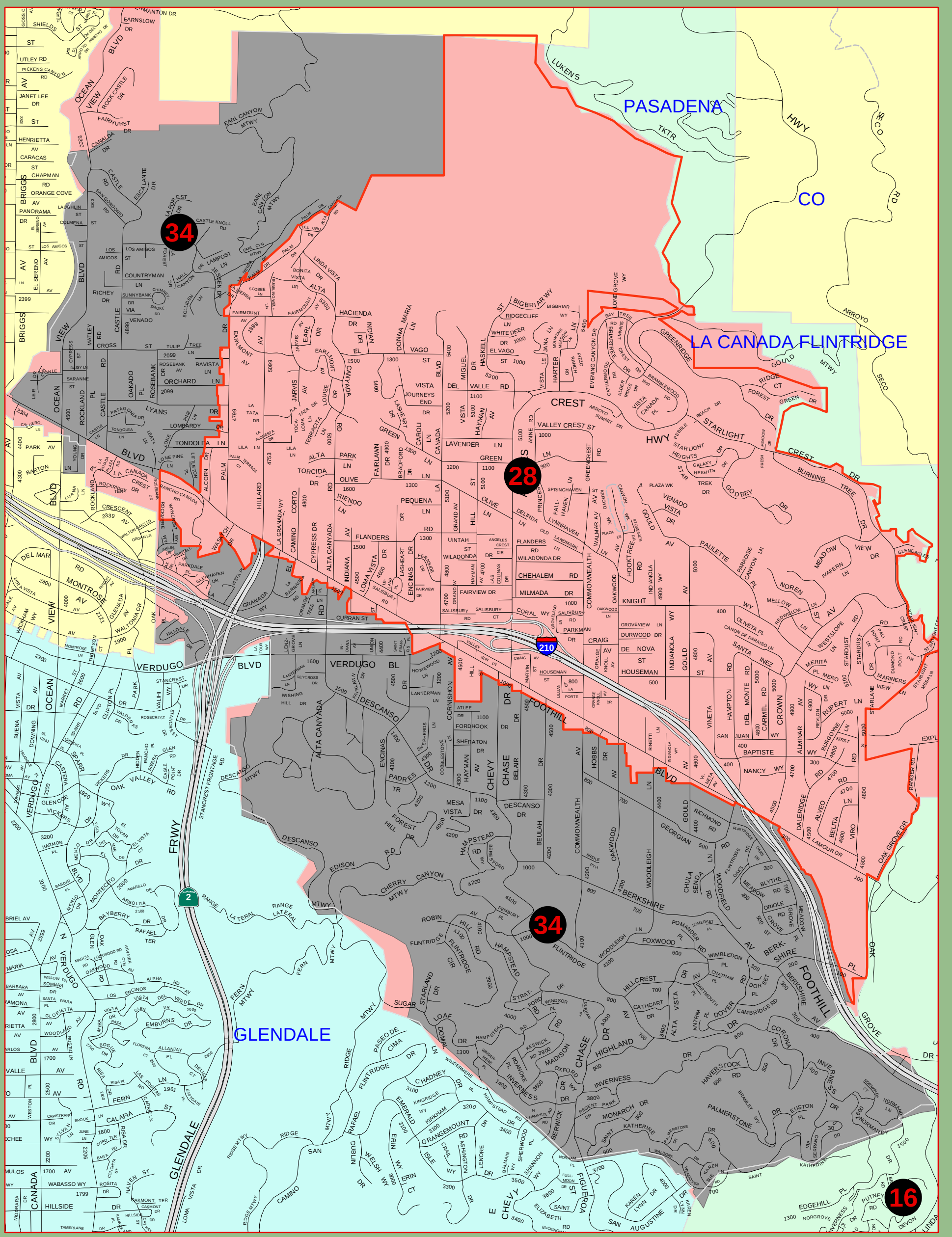
1:62,063

0 0.5 1 2 Miles

NORTH

LAFCO

July 7, 2003



County Sanitation District 34

Legend

- Roads, Thomas Bros.
- County Sanitation District 34
  NO SOI ADOPTED FOR CSD 34
- Other County Sanitation District Boundaries

1:21,000

0 0.25 0.5 1 Miles

NORTH

LAFCO

July 7, 2003

County Sanitation District 35

Legend

- Roads, Thomas Bros.
- County Sanitation District 35
- NO SOI ADOPTED FOR CSD 35
- Other County Sanitation District Boundaries

1:30,000

0 0.25 0.5 1 Miles

NORTH

LAFCO

July 7, 2003