EXECUTIVE SUMMARY

This report covers nine special districts—three sanitary districts, two sanitation districts, two community services districts, and two open space districts—which provide wastewater, open space and various other services in Santa Clara County. There are other agencies and cities that provide these services as well within the County but they are not covered as a part of this review. A service review is a State-required comprehensive study of services within a designated geographic area, in this case Santa Clara County. The service review requirement is codified in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code §56000 et seq.). Upon adopting the service review determinations, the Commission will update the spheres of influence (SOIs) of these providers in Santa Clara County. This report recommends SOI updates for the special districts for the Commission's consideration.

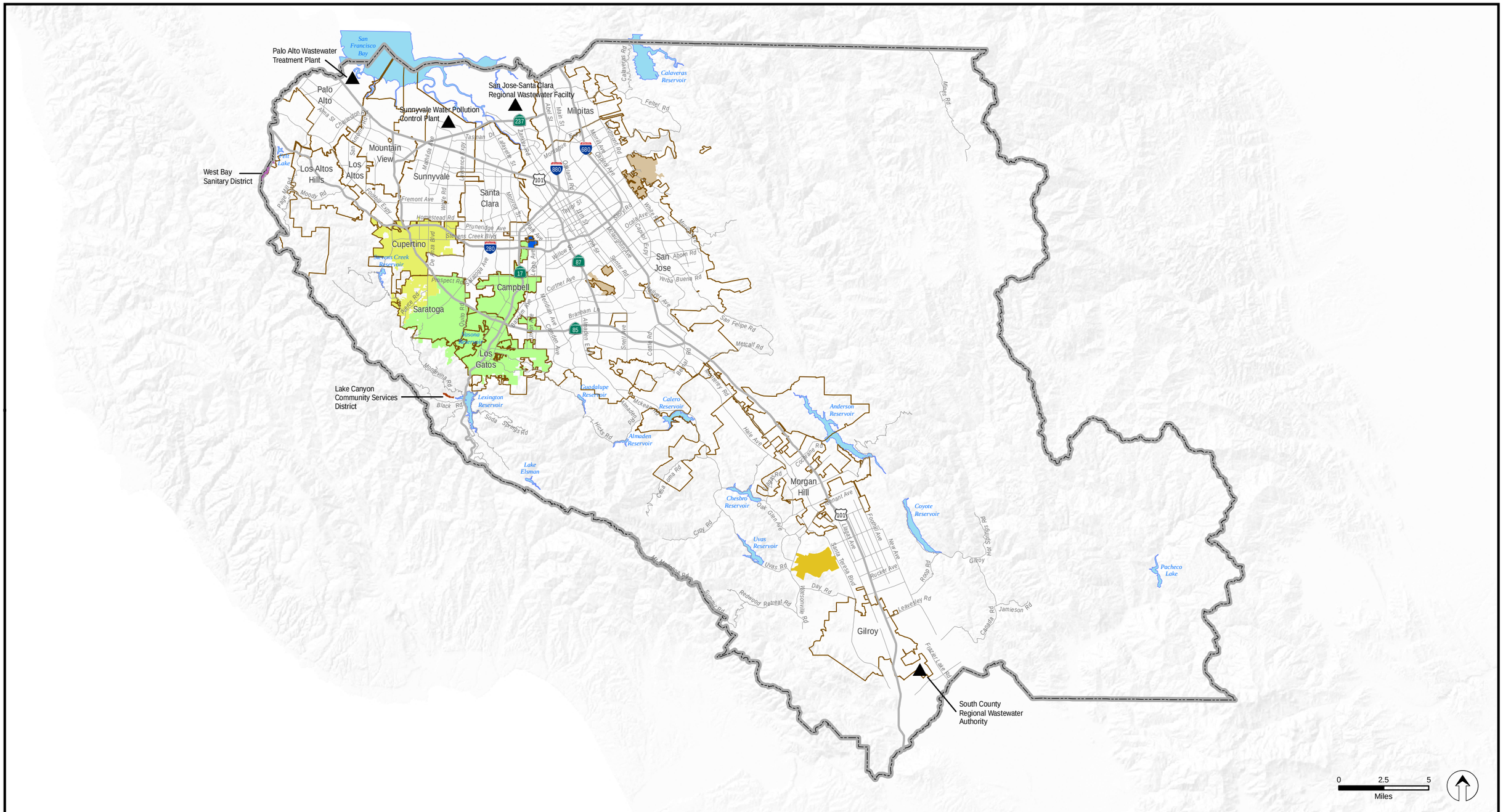
PROVIDERS

Overview

This report reviews wastewater, open space and other services in Santa Clara County, including how these services are provided by the special districts. All agencies covered in this report and the services provided by each are shown in Figure ES-1. For a geographic overview of the agencies covered that provide wastewater services, please refer to Figure ES-2. For maps of the open space agencies, refer to their individual chapters.

Figure ES-1: Special Districts Reviewed

	Wastewater		Other Services								
Agency	Collection	Treatment	Solid Waste Collection	Stormwater Management	Stormwater Maintenance	Street Sweeping	Street Maintenance	Landscaping	Lake System Maintenance	Open Space O&M	Resource Management
Burbank Sanitary District	✓		✓			✓					
County Sanitation District 2-3	✓										
Cupertino Sanitary District	✓										
Lake Canyon Community Services District	✓	✓									
Lion's Gate Community Services District	✓	✓			✓		✓	✓	✓		
Midpeninsula Regional Open Space District										✓	✓
Santa Clara County Open Space Authority										✓	✓
West Bay Sanitary District	✓			✓							
West Valley Sanitation District	✓			✓	✓						



Special Districts Providing Wastewater Services in Santa Clara County

- Burbank Sanitary District
- County Sanitation District 2-3
- Cupertino Sanitation District
- West Valley Sanitation District
- West Bay Sanitary District *

* West Bay Sanitary District includes territory in San Mateo County

- Lake Canyon Community Services District
- Lion's Gate Community Services District
- Wastewater Treatment Plants
- City Limits (Incorporated Areas)

LAFCO
Local Agency Formation Commission of Santa Clara County
August 2013

This map created by the Santa Clara County Planning Office. The GIS data was compiled from various sources. While deemed reliable, the Planning Office assumes no liability. 9/6/2013 12:56:58 PM Y:\Projects\LAFCO\Projects\LAFCO_Wastewater_Services.mxd

Of the nine providers reviewed here, seven provide wastewater collection services, and of those, two agencies also provide wastewater treatment services. Several of the wastewater service providers offer other services as well, such as solid waste collection, street sweeping, street maintenance, and landscaping. Santa Clara County Open Space Authority (OSA) and Midpeninsula Regional Open Space District (MROSD) provide for the operation and maintenance of open space preserves, as well as resource management. West Bay Sanitary District (WBSD) is under the jurisdiction of San Mateo LAFCO, which is responsible for adopting determinations and updating the District's SOI. While MROSD is also a multi-county district, the principal LAFCO responsible for adopting determinations and updating the District's SOI is Santa Clara LAFCO.

Wastewater Services

Seven special districts provide wastewater services of some type within Santa Clara County. Two districts—Lake Canyon Community Services District and Lion's Gate Community Services District—consist of self-contained systems that provide wastewater collection, treatment, and disposal. West Bay SD relies on the South Bayside System Authority (SBSA) for treatment of effluent. SBSA is a joint powers authority, consisting of West Bay SD and the Cities of Redwood City, San Carlos and Belmont. As part of SBSA member agencies share the cost of operating a regional sewage treatment plant.

Five wastewater providers—Burbank Sanitary District, County Sanitation District 2-3, Cupertino Sanitary District, West Bay Sanitary District, and West Valley Sanitation District—provide only collection services, including owning, operating and maintaining wastewater mains and related infrastructure.

With the exception of West Bay Sanitary District, these districts rely on the San Jose-Santa Clara Regional Wastewater Facility (RWF), for wastewater treatment and disposal. The plant was originally constructed in 1956 by the City of San Jose. In 1959, the City of Santa Clara helped to fund upgrades and became a partial owner of the facility. The plant is presently co-owned by the Cities of San Jose and Santa Clara. In the 1960s and 1970s, the City of Milpitas, Cupertino Sanitary District, and the West Valley Sanitation District began sending wastewater to the plant. The plant presently treats and cleans the wastewater of over 1.5 million people that live and work in the 300-square mile area encompassing San Jose, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. Wastewater is conveyed from the areas within each district to the RWF in Alviso for treatment and then either used as recycled water or discharged through Artesian Slough into South San Francisco Bay.

In 1998, the South Bay Water Recycling (SBWR) facility and pipeline was constructed in response to the need to make upgrades at RWF to meet discharge requirements into the bay. The facility provides recycled water to wholesale water providers for irrigation, landscape and industrial uses. The facility is operated in conjunction with the RWF. SBWR is subject to the master agreements entered into by each of the tributary agencies..

There are other wastewater treatment plants in Santa Clara County that provide services to the cities, but these facilities are not included as part of this review as they do not provide services to the special districts reviewed.

DEMAND

While several services were reviewed in this report, few have well defined demand indicators that are regularly tracked and meaningful for comparison and evaluation purposes. This section provides an overview of demand for wastewater services only, as well as a general discussion of factors affecting wastewater demand.

Wastewater demand is affected primarily by growth in residential population and commercial development, and secondarily by factors such as water usage and conservation efforts. Many of the water demand drivers are also wastewater demand drivers during dry periods. During dry weather, wastewater flows are less than potable water consumed. Water used for outdoor purposes, such as landscape, irrigation, firefighting, street cleaning, and residential car washing, does not flow into the wastewater system.[1]

Additionally, other water conservation efforts in recent years, such as water efficient appliances, have reduced wastewater flows. Ultra-low flush toilets (ULFTs) use one-quarter as much water as older models. Washing machine replacement is effective in reducing wastewater flows. Conventional washers discharge about 42 gallons of water per load compared with 26 gallons for efficient new, frontloading washers.

Wastewater flow includes not only discharges from residences, businesses, institutions, and industrial establishments, but also infiltration and inflow. Infiltration refers to groundwater that seeps into sewer pipes through cracks, pipe joints and other system leaks. Inflow refers to rainwater that enters the sewer system from sources such as yard and patio drains, roof gutter downspouts, uncapped cleanouts, pond or pool overflow drains, footing drains, cross-connections with storm drains, and even holes in manhole covers.[2] Infiltration and inflow tend to affect older sewer systems to a greater degree. Infiltration and inflow rates are highest during or right after heavy rain. They are the primary factors driving peak flows through the wastewater system and a major consideration in capacity planning and costs.

Service Connections

The wastewater providers reviewed in this report serve a total of 91,278 connections, of which 95 percent are residential and the remainder are commercial or industrial. The number of customers served by each agency varies greatly. Lion's Gate CSD and Lake Canyon CSD serve small isolated communities of 33 and 55 connections, respectively. While West Valley SD is the most expansive provider with approximately 44,000 connections. Refer to Figure ES-3 for the number of connections served by each provider.

[1] Although some drains in outdoor stairwells and yards connect to the wastewater system, most water used for outdoor purposes flows into the stormwater system.

[2] A sewer cleanout is a pipe rising from the underground sewer line to the ground surface with a removable cap; it is used to access the sewer line to clear blockages.

Figure ES-3: Wastewater Connections Served by Agency (2013)

Agency	Residential	Commercial	Total
Burbank Sanitary District	1,574	49	1,623
County Sanitation District 2-3	4,684	38	4,722
Cupertino Sanitary District	20,750	1,540	22,290
Lake Canyon Community Services District	55	0	55
Lion's Gate Community Services District	32	1	33
West Bay Sanitary District	18,380	625	19,005
West Valley Sanitation District	42,000	2,000	44,000

Wastewater Flows

The amount of wastewater handled by each district varies based on the number of connections served. Regardless of where treatment is conducted, each district has a maximum treatment capacity, whether allocated by agreement with the agency conducting treatment or as designed in the District's system.

As shown within Figure ES-4, all of the districts reviewed are well within the treatment capacity limitations of their particular system. While not shown here, capacity limitations at RWF are also defined by the load of certain compounds in the wastewater. The calculations in Figure ES-4 are limited to flow limitations. West Valley SD is nearing capacity, and at present is using 82 percent of its RWF allocated capacity. Conversely, Lake Canyon CSD is making use of only nine percent of the maximum design capacity of its system.

Figure ES-4: Average Daily Wastewater Flow in Million Gallons per Day (2013)

Agency	Peek Week Average Dry Weather Flow (mgd)[1]	Treatment Capacity (mgd)	Percent
Burbank Sanitary District	0.29	0.40	73%
County Sanitation District 2-3	1.03	2.26	46%
Cupertino Sanitary District	4.37	7.88	55%
Lake Canyon Community Services District	0.003	0.03	9%
Lion's Gate Community Services District	0.017	0.05	37%
West Bay Sanitary District	4.50	6.60	68%
West Valley Sanitation District	9.94	12.05	82%

Notes: 1) As reported by the City of San Jose in the Tributary Agencies' Available Plant Capacity - 2013, November 2013.

FACILITY NEEDS

Each of the providers identified infrastructure needs and deficiencies related to their respective wastewater facilities. The primary need identified among the wastewater providers was the continued inspection of their systems in order to prioritize mains for

repair or replacement. Most agencies identified few significant capital needs. Given the relative newness of the Lion's Gate CSD and Lake Canyon CSD systems, there were no immediate capital needs identified by the districts beyond regular maintenance activities. County Sanitation District 2-3 faces significant capital needs related to its collection system, as it suffers from a high rate of sanitary sewer overflows and is legally required to implement an accelerated capital improvement plan, as defined in a recent settlement agreement with an environmental organization. For further information and background on an agency's respective needs refer to the provider's individual chapter in this document.

In addition to the needs identified within each agency's system, the RWF is in the midst of initiating a five-year capital improvement plan (FY 14-18), which will impact member agencies that rely on the plant for treatment services. The improvements are projected to total $680.9 million. The costs of these improvements will be borne by the member agencies as defined in their respective master agreements. In addition, there are plans to make enhancements to the plant according to the Master Plan Update to improve operations, increase enhance use of renewable energy sources, and develop habitat and open space areas, among other improvements. These improvements are anticipated to cost approximately $1.52 billion over a period of 30 years. As many of these improvements are considered supplemental to the operations of the sewer treatment plant by the Districts, and not essential to the proper functioning of the plant, member agencies have sent letters to the City of San Jose in opposition of financing these improvements. The City has reported that it is pursuing third party funding for the habitat projects.

FINANCING

Wastewater service charges are the primary financing sources for wastewater enterprises among the agencies reviewed. The open space providers rely on other financing sources. Midpeninsula Regional Open Space District relies primarily on property tax income and land donations, while Santa Clara County Open Space Authority relies almost entirely on benefit assessment revenue.

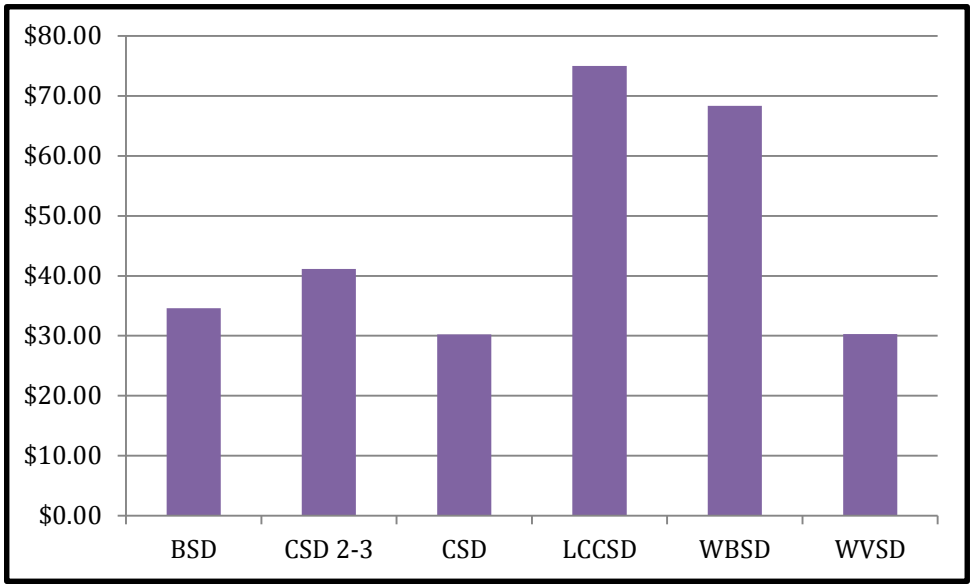
Wastewater service charges are often collected on a parcel's property tax bill as an assessment. Compared with other municipal services, there are relatively few financing constraints for wastewater enterprises. Generally, agencies may establish service charges on a cost-of-service basis. In the past, wastewater providers have not been required to obtain voter approval for rate increases or restructuring; however, based on recent court findings, wastewater providers have been required to complete a Proposition 218 voter protest process when updating rates. The boards of each of the public sector wastewater providers are responsible for establishing service charges. Service charges are restricted to the amount needed to recover the costs of providing wastewater service. The wastewater rates and rate structures are not subject to regulation by other agencies. Service providers can and often do increase rates annually.

For comparison purposes, rates are shown as an average monthly rate for a single-family connection in Figure ES-5. As Lion's Gate CSD charges a flat benefit assessment on each property to cover a multitude of services, the rates dedicated to wastewater services were not identifiable for comparison purposes. Of the other six providers, all charge a flat rate for residential connections and commercial connections are charged based on water

use. The median monthly rate among the providers reviewed is $37.86. Cupertino SD charges the lowest rate of the agencies reviewed of $30.25 per month. Lake Canyon CSD charges the highest rate of $75 per month.

The service charges of those member agencies of the San Jose-Santa Clara Regional Wastewater Facility are greatly influenced by significant capital improvements that are planned at the plant over the next five years. In anticipation of these additional charges by RWF, all of the member districts have initiated rate increases. With the exception of Lake Canyon CSD, all providers reviewed and updated their rates for FY 14. The agencies increased rates by between 1.7 percent (Lion's Gate CSD) and 15 percent (CSD 2-3).

Figure ES-5: Monthly Wastewater Rates for a Single Family Connection (FY 13-14)



Each of the districts self-reported on the adequacy of the existing financing level to provide services. In general, those agencies that rely primarily on wastewater rates and other service charges to finance services reported that financing levels were adequate, while those that rely on property taxes and benefit assessments to finance all services (Midpeninsula Regional Open Space District and Santa Clara County Open Space Authority) reported that financing levels are marginally adequate and are only sufficient to cover existing service levels without enhancements. All agencies reported revenue constraints to some degree, which has led to expenditure cuts and efforts at improved efficiencies.

SERVICE LEVELS

This section reviews indicators of service adequacy, including regulatory compliance, sewer overflows and collection system integrity, as well as transparency and accountability.

Regulatory Compliance

The Regional Water Quality Control Board (RWQCB) enforces the Clean Water Act, National Pollutant Discharge Elimination System (NPDES) permit conditions and other

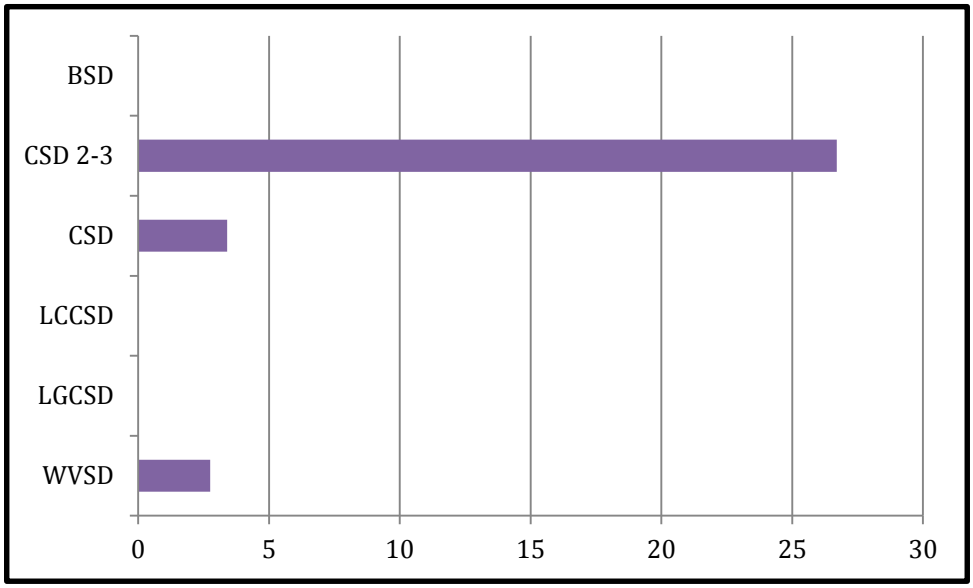
requirements of wastewater providers. The Board may levy fines or order the provider to take specific actions to comply with water quality regulations. Violations of State requirements for wastewater providers and treatment facilities are recorded by the State Water Resources Control Board (SWRCB). Violations are categorized according to severity and type.

Of the districts reviewed, only two had violations during the period from January 1, 2010 to July 1, 2013. County SD 2-3 had 29 violations during that 3.5-year period, all of which were related to sanitary sewer overflows. Cupertino SD had two violations during that same time period, both of which were also related to sanitary sewer overflows. In the case of both districts, these violations did not result in enforcement actions by the RWQCB.

Sewer Overflows

Sewer overflows are discharges from sewer pipes, pumps and manholes. Reduction and prevention of the size and number of sewer overflows is a key objective of SWRCB policy. Wastewater agencies are required to report sanitary sewer overflows (SSOs) to SWRCB. The number of SSOs reported by each agency from January 1, 2010 to July 1, 2013 was acquired from the CIWQS online database and sorted to exclude those overflows that were caused by limitations/problems with customer-controlled piping/facilities. Thus defined, overflows reflect the capacity and condition of collection system piping and the effectiveness of routine maintenance. The sewer overflow rate is calculated as the annual number of overflows per 100 miles of collection mains and shown in Figure ES-6.

Figure ES-6: Annual Sanitary Sewer Overflows per 100 Miles of Main (1/1/2010-7/1/2013)



During the period reviewed, three districts (Burbank SD, Lake Canyon CSD, and Lion's Gate CSD) reported no SSOs. For the other three providers, the SSO rate ranged from 2.75 SSOs per 100 miles of collection main for West Valley SD to 26.7 for County SD 2-3. CSD 2-3 faces a particular challenge with regard to SSOs and significant capital improvements are likely necessary to minimize the occurrence of overflows.

Accountability

During the course of this service review, some deficiencies in accountability and transparency were identified. Of the agencies reviewed, Lake Canyon CSD does not maintain a website where documents and information are publicly accessible. Additionally, while Lion's Gate CSD has a website, it is only made available to district residents. It is a recommended practice that a public agency maintain a website where all agency information is readily available.

Two special districts reviewed have failed to submit regular audited financial statements to the County. All special districts are required to submit annual audits to the County within 12 months of the completion of the fiscal year, unless the Board of Supervisors has approved a biennial or five-year schedule.[3] In the case of Lake Canyon CSD, the District must submit audits every five years, but it appears that it has never submitted an audit to the County. OSA is required to submit audits annually, but has not yet submitted its audit for FY 12. Additionally, all special districts are required to submit adopted budgets to the County Auditor's Office within 60 days of the start of the fiscal year.[4] However, of the nine districts that were reviewed, only West Bay SD and West Valley SD had submitted budgets as required for FY 14.

Timely and complete response to requests for information is a fundamental indicator of the degree of transparency of an agency. During the course of this review, a majority of the districts exhibited complete transparency by cooperating with all of LAFCO's requests in a timely manner. Lake Canyon CSD faced challenges in its responses and required multiple follow-up attempts. While a majority of the requested information was ultimately provided, the response was past due and particular information was never provided. It is recommended that Lake Canyon CSD make improvements to its public request process and adopt a policy outlining how requests are to be handled to completion.

GOVERNANCE ALTERNATIVES

Several governance options were identified over the course of this study, including:

- Continued existence of Burbank SD and continued service within its existing boundaries until all areas have been annexed to the City of San Jose.
- Dissolution of Burbank SD within a certain timeframe with services continued by the City of San Jose, outside of city limits in anticipation of eventual annexation.
- Annexation of the City of Gilroy to Santa Clara County Open Space Authority.
- Annexation of Midpeninsula Regional Open Space District's lands that lie outside of the District's bounds but within its SOI.

[3] Government Code §26909.

[4] Government Code §53901.