

SECTION 5.0 CENTRAL CONTRA COSTA SANITARY DISTRICT WASTEWATER SERVICE

5.1 Overview

The Central Contra Costa Sanitary District (CCCSD) provides wastewater collection, treatment, and disposal services for Danville, Lafayette, Moraga, Orinda, Pleasant Hill, and Walnut Creek, as well as a portion of Martinez and San Ramon and unincorporated areas within central Contra Costa County. The District also provides wastewater treatment for the cities of Concord and Clayton, and is a partner in the Household Hazardous Waste Collection Facility that serves the central portion of the county.

CCCSD is an independent district, formed in 1946 pursuant to the Sanitary District Act of 1923 (Health & Safety Code §6400 et seq.). CCCSD serves an estimated population of 314,400 residents in a 142 square mile service area. The District's sphere of influence (SOI) encompasses an additional 41.5 square miles and includes areas adjacent to the District's western and eastern boundaries as well as some islands surrounded by the District. Because the District provides wastewater treatment and disposal services by agreement for Concord and Clayton, the area served by Concord's wastewater collection system is included CCCSD's SOI.

CCCSD's wastewater treatment plant provides secondary level treatment for an average dry weather flow of approximately 39.1 million gallons per day (mgd) of domestic, commercial, and industrial wastewater; the plant has a permitted capacity of 53.8 mgd. The majority of the treated effluent is discharged to Suisun Bay. With the remainder, the District produces approximately 1.5 mgd of tertiary treated recycled water that is used for landscape irrigation within the District's service area. LAFCO recently approved a major annexation to the District in the southern Alhambra Valley; the District is constructing a new trunk sewer.

The District is providing service to an estimated 180 parcels outside the District boundaries, which have not been submitted to LAFCO for review and approval as required in Government Code §56133. This code section allows the Commission to authorize a city or district to provide new or extended services outside its jurisdictional boundaries but within its SOI in anticipation of a future change of organization. The District has begun the process of annexing these parcels; however, this remains an important issue for the District to resolve.

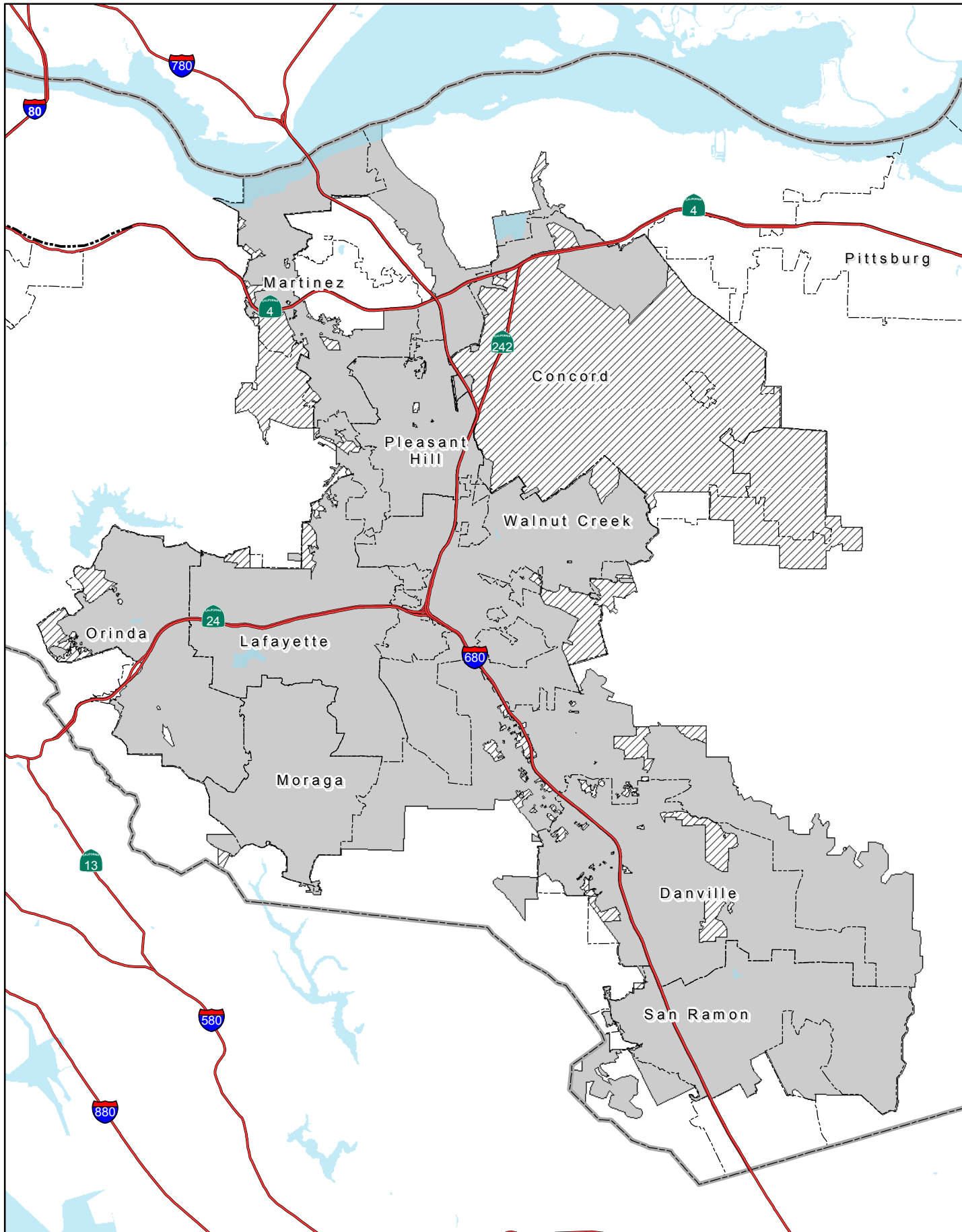
The District's profile for wastewater service is shown in *Table 5.1* and a map of the District's boundary and current SOI are shown in *Figure 5.1*.

**5.0 Central Contra Costa Sanitary District
Wastewater Service**

**Table 5.1
Central Contra Costa Sanitary District
Wastewater Service Information**

Service Area / Financial Summary	
District Office	5019 Imhoff Place Martinez, CA 94553 (925) 229-7302 www.centalsan.org
Service Area:	142 square miles
Population:	314,400 (Year 2007) / 377,355 (Year 2035) Average Annual Growth Rate = 0.7%
Operating Budget (FY 2007-2008):	Revenues / Expenditures: \$55,227,035 / \$52,997,900 Net Assets at June 30, 2007: \$583,735,877
Wastewater Service Data	
Services	Wastewater Collection, Conveyance, Treatment, Disposal Recycled Water Household Hazardous Waste Collection/Disposal
Number of Service Accounts	111,368
Miles of Sewer Main / Number of Pump Stations	1,500 miles / 18 pump stations
Average Age of Collection System	30 years
Average Dry Weather Flow to Treatment Plant / Peak Wet Weather Flow	39.1 mgd (2006) / 260 mgd
Wastewater Treatment Plant Capacity	53.8 mgd
Treatment / Disposal	Secondary Treatment - Discharged to Suisun Bay Tertiary Treatment - Recycled for Irrigation Use
RWQCB Region	Region 2 - San Francisco Bay
Orders	Order No. R2-2007-0008 - Waste Discharge Requirements NPDES Permit No. CA0037648 Order No. 2006-0003 - Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

Central Contra Costa Sanitary District and Sphere of Influence



Map created 11/30/2007
by Contra Costa County Community Development, GIS Group
651 Pine Street, 4th Floor North Wing, Martinez, CA 94553-0095
37:59:48.455N 122:06:35.384W

This map was created by the Contra Costa County Community Development Department with data from the Contra Costa County GIS Program. Some base data, primarily City Limits, is derived from the CA State Board of Equalization's tax rate areas. While obligated to use this data the County assumes no responsibility for its accuracy. This map contains copyrighted information and may not be altered. It may be reproduced in its current state if the source is cited. Users of this map agree to read and accept the County of Contra Costa disclaimer of liability for geographic information.

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5.2 Growth and Population Projections

The Central Contra Costa Sanitary District (CCCSD) provides wastewater collection, treatment, and disposal services for Danville, Lafayette, Moraga, Orinda, Pleasant Hill, and Walnut Creek, as well as a portion of Martinez and San Ramon and unincorporated areas within central Contra Costa County. The District provides wastewater treatment and disposal for the cities of Concord and Clayton. The District's collection area encompasses an estimated 142 square miles. The District estimates that it is serving 448,700 residents as of January 1, 2007, including 314,400 within District boundaries and 134,300 by contract in Concord and Clayton. The District is projecting a population of 377,355 within District boundaries in 2035.

Portions of the District's service area are considered built out, and population growth will be accommodated through in-fill development, mixed-use projects, and increased densities. For areas adjacent to the District's boundaries, the adopted Urban Limit Lines for the County will limit growth.

Growth is anticipated in the Dougherty Valley, east of San Ramon. The District is planning on approximately 11,000 units being added to the system. More than 6,900 of these units have already been constructed and connected. The timing will depend on economic conditions.

Growth is also anticipated through reuse of the former Concord Naval Weapons Station (CNWS) located in the northern and eastern portions of the City of Concord. The City is working on the Concord Community Reuse Plan for the approximately 7,500 acre site. The Reuse Plan currently includes seven conceptual development alternatives, ranging from 6,230 residential units with a population of 14,700 to 13,000 residential units with a population of 30,600.

The District will also experience some growth with the annexation of approximately 302 acres in the lower region of the Alhambra Valley. The annexation was approved by LAFCO in November 2007 (Resolution No. 07-19). The District is annexing 242 parcels, 41 of which could be developed in the future.

There will be an increased need for cost-effective wastewater services within central Contra Costa County given current urban land uses, projected growth, aging wastewater collection systems and septic systems, and increasingly stringent water quality standards. The District has planned for growth within its service area based on adopted land use plans and the related wastewater facility needs.

5.3 Infrastructure Needs or Deficiencies

CCCSD provides comprehensive wastewater services for residential, commercial, industrial, and institutional customers within its service area. The District’s wastewater infrastructure consists of a collection and conveyance system, with treatment and disposal facilities, as well as a water reclamation facility. The District treats some wastewater to a tertiary level so that it can be used for landscape irrigation and other recycled water uses. The District also operates a household hazardous waste collection facility in cooperation with the Mt. View Sanitary District (MVSD), cities of Concord and Clayton, and the City of San Ramon for southern San Ramon. The District uses a ten-year planning horizon for its Capital Improvement Plan (CIP); the CIP, Capital Improvement Budget, and the specific projects contained therein are updated annually. The District uses a Supervisory Control and Data Acquisition (SCADA) system to manage its pumping stations and treatment plant, which improves efficiency. CCCSD has won Platinum and Gold awards from the National Association of Clean Water Agencies for nine straight years in recognition of the District’s 100 percent compliance with their National Pollutant Discharge Elimination System (NPDES) permit.

Table 5.2 summarizes CCCSD’s existing wastewater system facilities:

Table 5.2
Central Contra Costa Sanitary District
Wastewater System Overview

	Quantity
Number of Service Accounts	111,368
Sewer Connections	136,776
Sewer Mains	1,500 miles
Pump Stations	18
Average Age of Collection System	30 years
Average Dry Weather Flow to Treatment Plant:	39.1 mgd (2006)
Plant Design Capacity	53.8 mgd permitted
Water Reclamation & Effluent Disposal	1.5 mgd recycled water (2006) or Discharged to Suisun Bay

5.3.1 Collection and Conveyance System

CCCSD serves 136,776 sewer connections within the District’s boundaries (excluding Concord and Clayton), with the following distribution: residential 97%, commercial 2%, industrial and institutional 1%.

CCCSD operates and maintains pipelines, force mains, and pumping stations that convey wastewater to the District-owned wastewater treatment plant in Martinez. The majority of the District's system operates with gravity flow with some pumping stations and force mains.

The District's Collection System Master Plan Update (2000) evaluated the existing system given District criteria for performance, existing wastewater flows, and expected growth and land use changes. The Plan identified capacity limitations for lines that are typically 10 inches in diameter or larger. Capacity can be affected by several issues, including infiltration and inflow (I/I) caused by rain or groundwater as well as increased land use density. The age and condition of sewers has a direct relationship to I/I. Portions of the District's collection system were constructed prior to 1956, which has the highest potential for I/I. Results of the modeling for the Plan show that through 1997, approximately 8.2 percent of all pipes were expected to be deficient under full-capacity modeling conditions. Projects have been implemented to address capacity exceedances. These improvements include projects in the following areas: Pleasant Hill Road East corridor, Martinez; Pleasant Hill Road corridors, Lafayette and Pleasant Hill; Grayson Creek corridor, Pleasant Hill; Walnut Blvd. corridor, Walnut Creek; and the Diablo Road corridor, Danville. No overflows related to capacity issues have been experienced in more than six years because deficiencies are corrected as needed to avoid such overflows.

The Master Plan prioritized recommended projects based on the relative need for the projects in terms of the severity of existing or projected capacity deficiencies. The Plan recommended \$130 million in projects that the District has incorporated into the CIP. The projects have been implemented based on priority and funding availability. CCCSD is in the process of updating the Master Plan (2008) to examine capacity issues that may arise in the future as a result of General or Specific Plan modifications by the jurisdictions served. In 2003, the District initiated a CCTV sewer line inspection program to identify and prioritize areas needing rehabilitation or repair. This program is ongoing.

In May 2006, CCCSD and the City of Concord entered into a Joint Powers Agreement for the design and construction of the next phase of the District's A-Line Relief Interceptor and a gravity flow connection between the Concord Sewage Pump Station and the new CCCSD line. The first phase, completed in 1995, included the installation of 6,400 feet of 102-inch pipe from the CCCSD treatment plant to the Buchanan Fields Golf Course. The next phase will extend the line up to the intersection of Meridian Park Boulevard and Galaxy Way. The line is expected to be deep enough to allow a gravity flow connection from the Concord Sewage Pump Station to the new line. The work is expected to be completed in FY 2008/2009.

CCCSD is constructing a new trunk sewer to serve the lower Alhambra Valley. The sewer line will extend from Alhambra Valley Road/Reliez Valley Road north to connect to the District's existing system near Alhambra Valley Road/Gilbert Lane. The trunk sewer will use gravity flow

and be constructed to allow for connection of local sewer mains. This project is being funded through Alhambra Valley Assessment Districts formed for this purpose.

The District's Ten Year Capital Improvement Plan (FY 2007/2008 through 2016/2017) includes \$185 million in collection system projects for renovation, regulatory compliance, safety, expansion, and pumping stations. The projects are identified, prioritized, and scheduled through six major components: the Collection System Master Plan Update (2000), results from the ongoing CCTV inspections, the list of Critical Line Segments prepared by the Collection Systems Operations Division, the Pumping Station Inventory Update (2000), collection system facility plans, and coordination with CIP projects for other agencies. Expansion projects will be funded through capacity fees, pumped zone fees, and developer fees. Upgrades and replacement projects will be funded through property taxes, sewer service charges, and debt financing. Since 1992, the annual sewer service charge includes a capital improvements increment. For FY 2007/2008, the District budgeted \$26.5 million for collection system improvements. Of this amount, \$8.2 million is being spent on sewer renovations. The largest renovation projects focus on multiple sites in Orinda, Martinez, and Walnut Creek.

The State Water Resources Control Board (SWRCB) maintains an online database, the California Integrated Water Quality System (CIWQS), where permit violations and sewer system overflows (SSOs) are reported. In 2006, the SWRCB adopted the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-003-DWQ) and CCCSD (as part of the San Francisco Region) must now report all SSOs to the CIWQS. According to the San Francisco RWQCB's SSO Report¹, the District had 47 reported SSOs between December 2004 and May 2, 2007, 20 of which exceeded 500 gallons. The majority of the SSOs were caused by tree roots and grease.

The District is preparing its Sewer System Management Plan (SSMP) in accordance with the requirements of the SWRCB's General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. 2006-0003-DWQ). The Plan includes a Fats, Oils and Grease Control Program, which is expected to reduce the number of blockages and retain capacity within the sewer system. CCCSD has an Overflow Response and Reporting Plan that was updated in August 2006; this plan serves as the District's emergency response plan. The SSMP will be complete prior to August 2008, as required by the State.

5.3.2 Treatment Plant and Disposal

CCCSD's Wastewater Treatment Plant is located at 5019 Imhoff Place in Martinez. The plant has a permitted capacity of 53.8 mgd; the current average dry weather flows are approximately

¹ San Francisco Regional Water Quality Control Board Sanitary Sewer Overflow (SSO) eReporting Program Database Records (from Dec. 1, 2004 to May 2, 2007)

39.1 mgd. The majority of the wastewater receives secondary treatment and is discharged to Suisun Bay. The remainder is directed to the District's Water Reclamation Facility adjacent to the plant for further treatment so that it can be used for landscape irrigation and other recycled water uses.

In 1996, the Contra Costa Water District (CCWD) and CCCSD entered into an agreement allowing CCCSD to supply recycled water to specific areas of Concord and Pleasant Hill. The transmission main extends approximately seven miles into the Pleasant Hill community as far south as Boyd Road. CCCSD produces approximately 170 million gallons (MG) per year of recycled water, which is delivered to 25 customers. The largest users are the Contra Costa Country Club and Golf Course, Diablo Valley College, and the Buchanan Fields Golf Course. The District is studying other projects to expand the recycled water customer base, including landscape irrigation uses in North Concord, Martinez, and Walnut Creek. These projects will require coordination and agreements with CCWD, the City of Martinez, or the East Bay Municipal Utility District (EBMUD).

The District conducted seismic evaluations of its treatment plant and pumping station facilities and has made improvements, as necessary, to harden them against seismic activities.

The District's Ten Year Capital Improvement Plan (FY 2007/2008 through 2016/2017) includes \$117 million in Treatment Plant projects for regulatory compliance and safety, renovation, expansion, and other projects. Expansion projects are funded through capacity fees and capital contributions from the City of Concord. Upgrades and replacement projects are funded through property taxes, annual sewer service charges, the City of Concord service charge, and debt financing. For FY 2007/2008, the District budgeted \$12.3 million for treatment plant projects. The emphasis of the Treatment Plant Program will be on renovation needs of the aging infrastructure and on meeting increasingly stringent regulatory requirements. The District's CIP also includes \$4.7 million for recycled water projects. The District plans to expand the use of this resource by linking recycled water pipeline projects with sewer construction projects under contract, where feasible and cost effective. CCWD provides maintenance services for CCCSD's recycled water distribution system under contract with CCCSD. The District also continues to investigate supplying recycled water to large industrial users.

5.3.3 Summary

CCCSD's wastewater infrastructure consists of a collection and conveyance system, with treatment and disposal facilities. The District's infrastructure is in good condition. Through its CIP, the District is addressing its need to renovate or replace aging infrastructure. The most significant infrastructure needs are associated with the District's collection and conveyance system. The District is implementing its Sewer Renovation and Replacement Program, which

will rehabilitate sewer lines and assure capacity. The District uses the 2000 Collection System Master Plan Update, CCTV inspection program, maintenance records, and a ten-year CIP to plan for and prioritize infrastructure needs. The Collection System Master Plan Update will be revised in 2008.

5.4 Financing Constraints and Opportunities

CCCSD's primary sources of operating revenue are sewer service charges for District customers and the City of Concord service charge. The District also receives a portion of the one-percent property tax levied by Contra Costa County. Permit and inspection fees, contributions for capital costs, and interest earnings are also significant sources of revenue. *Table 5.3* summarizes the financial history of the District.

Table 5.3
Central Contra Costa Sanitary District
Financial Summary

	FY 2004/2005 Actual	FY 2005/2006 Actual	FY 2006/2007 Actual	FY 2007/2008 Budgeted
Operating Revenues	\$40,171,544	\$46,438,353	\$47,411,035	\$52,997,900
Operating Expenses	\$59,526,234	\$62,514,143	\$51,951,189	\$55,227,035
Net Non-operating Revenues / (Expenses)	\$23,845,636	\$18,629,219	\$32,289,006	
Capital Contributions	\$16,259,565	\$13,541,843	\$12,439,362	
Change in Net Assets	\$20,750,511	\$16,095,272	\$20,966,460	
Net Assets, Beg of Year	\$525,923,634	\$546,674,145	\$562,769,417	\$583,735,877
Net Assets, End of Year	\$546,674,145	\$562,769,417	\$583,735,877	

At June 30, 2007, CCCSD had \$3.2 million in net assets restricted for debt service and \$66.9 million in unrestricted net assets.

The District has long term debt associated with two revenue bond issues and a water reclamation loan. In 1998, the District issued \$25.3 million of Refunding Revenue Bonds with interest rates ranging from 3.5 to 4.7 percent. The bonds will be retired by 2016. In 2002, the District issued \$16.6 million in Revenue Bonds, with interest rates ranging from 4.0 to 5.0 percent. The bonds will be retired by 2024. In addition, the District entered into a contract with the SWRCB for \$2.9 million in funding for recycled water projects. The loan has an interest rate of 2.6 percent and will be paid in full by 2019. At June 30, 2007, the District's long term debt obligations totaled \$30.3 million. Average annual debt service requirements through 2011 are \$3.7 million.

The City of Concord is required to pay a fair share of capital improvement costs for the CCCSD infrastructure based on flows. The District coordinates with the City during the project planning process so that the City can budget the costs accordingly.

CCCSD uses a pay-as-you-go approach for most capital needs. The District has a ten-year financial plan for forecasting revenues, expenses, and fund balance. The model is used in reviewing the sewer service charge and Concord service charge as well as other fees and charges annually to ensure adequate revenues for operations, maintenance, capital needs, and debt service. The District has the financial resources to maintain the infrastructure and provide adequate service.

5.5 Cost Avoidance Opportunities

CCCSD controls costs for service by using a ten-year planning horizon for capital needs and leveraging the use of shared facilities and resources with other wastewater agencies in central Contra Costa County.

The San Francisco Bay RWQCB has recently developed a total maximum daily load (TMDL) for mercury for discharges to the San Francisco Bay. The TMDL establishes the allowable limit for mercury that can be discharged from each treatment plant. In anticipation of the TMDL, CCCSD has focused its efforts to control mercury at the source, such as dental offices, in addition to reducing mercury contribution to the effluent from District treatment processes.

CCCSD produces its own electricity through a cogeneration system, which saves the District approximately \$1 million per year in electric utility costs.

CCCSD headquarters are located in the northern portion of the district; however the District's operation facilities are centrally located in Walnut Creek where crews can reach a pipeline emergency within 30 minutes.

CCCSD partners with MVSD, the cities of Concord and Clayton, and the City of San Ramon (for southern San Ramon) to provide a permanent Household Hazardous Waste Collection Facility that serves central Contra Costa County. This program is part of a broad effort to prevent toxic products from entering the sewer system, which could increase treatment costs and require significant capital investment.

CCCSD uses the Contra Costa Training Center in Martinez, the federal Western Regional Training Center in San Francisco, and local government's Norcal Training Program as low-cost alternatives to outside training.

5.6 Opportunities for Rate Restructuring

CCCSD reviews its rates and other charges annually. The District charges an annual flat rate service charge for residential customers; the service charge is collected through the tax roll. The annual rate increases for the past few years have been fairly consistent: \$8 in FY 2005/2006, \$9 in FY 2006/2007, and \$11 in FY 2007/2008. A flat rate structure for residential sewer service is common throughout the state. Although rates based on actual wastewater flows (or winter water usage) would ensure that the cost for service is borne by the user, the cost to implement and maintain this type of rate structure can outweigh the benefits for residential accounts.

Commercial and non-industrial customers are charged based on water use, determined from meter readings obtained from the water service provider. In addition, rates are based on wastewater loading; the highest rates are paid by bakeries, food establishments, markets, etc. The current top rate is \$7.67 per hundred cubic feet (ccf) and the lowest rate is \$2.78 per ccf. Rates for industrial customers are also based on flow and wastewater loading.

The service charge for the City of Concord is based on the City’s flow-proportional share of treatment plant operations and maintenance costs and capital project expenditures.

The current service rates are summarized in *Table 5.4*.

Table 5.4
Central Contra Costa Sanitary District
2007 Wastewater Service Charge

Type	Rate
Residential	\$300/yr (equates to \$25/month)
Commercial/Non-industrial – based on water use and wastewater loading	High - \$7.67 per ccf Low - \$2.78 per ccf
Industrial	\$1,530/MG

Capacity fees and charges are based on Residential Unit Equivalents (RUE), which is a measure of sewage volume and strength equivalent to a typical residential household. CCCSD charges a Gravity Capacity Fee for all new connections and an additional pumping capacity fee for properties within the pumped service zone. Commercial and industrial accounts are charged a fee based on the RUE factor (i.e. the capacity for a new connection serving a car wash would be 21.127 times the RUE). The current capacity fee for a single family residence in the pumped zone is \$5,990. The capacity fee schedule was updated in July 2007.

CCCSD does not have any general bond or general assessment charges paid through the property tax bill other than the District’s share of the one percent property tax. In small specific portions

of the District's service area, there are localized assessment districts that have been established to provide targeted financing of certain neighborhood sewers. These assessments vary due to the different facility costs and varying number of properties sharing the costs. The assessments were either voluntarily accepted or approved by a majority of property owners in the assessment district.

5.7 Opportunities for Shared Facilities

CCCSD shares certain capital facilities and programs with other agencies, as described below:

- CCCSD's contract with the City of Concord (which includes service for Clayton) provides that Concord pay a flow-proportional share of the cost of all new and renovated treatment and recycling facilities and all interceptors and pumping stations that convey Concord and Clayton flows. In exchange, CCCSD treats and disposes of Concord and Clayton sewage. While CCCSD retains the ownership of the facilities, they are in essence shared because Concord and Clayton have rights to discharge their permitted flows to CCCSD.
- The Household Hazardous Waste Collection Facility is also a shared facility, with a portion of the original and ongoing capital costs being paid by CCCSD's partners: MVSD, the Cities of Concord and Clayton, and the City of San Ramon (for south San Ramon). CCCSD retains ownership of the facility.
- CCCSD is the administrator for storm water inspections for most of Contra Costa County under an agreement with the County Clean Water Program.
- CCCSD participates in joint training efforts with other Bay Area public agencies, including programs for reducing mercury use in hospitals, training for cooling tower operation and maintenance, pollution prevention, and training for wastewater treatment plant operations and maintenance.
- On occasion, CCCSD provides MVSD and Contra Costa County Health Services with laboratory analytical services.
- CCCSD has informal mutual aid agreements with neighboring agencies to lend equipment and staff in case of urgent or emergency situations. The District is typically reimbursed for their participation.
- CCCSD leases a portion of its treatment plant site to CCWD for use in drying the alum sludge from CCWD's water treatment plant. The sludge is piped to CCCSD's site and then trucked away by CCWD after drying.
- CCCSD has an interagency agreement with Dublin San Ramon Services District (DSRSD) that allows wastewater to overflow from CCCSD's San Ramon Pumping

Station to DSRSD's nearby collection system in the event of a pumping station emergency.

- CCCSD has an interagency agreement with EBMUD to have EBMUD accept and process biosolids from CCCSD as a backup in emergencies (such as when CCCSD's incinerators are out-of-service) or during peak conditions when operation a second incinerator would be inefficient.

When constructed in 2008, CCCSD's nearest planned sewer main on Alhambra Valley Road would be about 2,200 feet east of the entrance to County Sanitation District No. 6 (Stonehurst residential development). The San Francisco Bay Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements for SD No. 6 mandates connection of the development to an Alhambra Valley sanitary sewer and closure of the development's onsite wastewater treatment and disposal system. At some time in the future, it is foreseeable that CCCSD's sanitary sewer system would be extended far enough west that it would be worthwhile for the Stonehurst property owners to extend it the rest of the way to their development and connect to the CCCSD sanitary sewer system. The future provision of CCCSD sanitary sewer service to Stonehurst was included in CCCSD's 2003 "Facilities Plan for Wastewater Utility Services to Alhambra Valley" and collection system and treatment capacity are available.

5.8 Evaluation of Management Efficiencies

The District periodically plans and evaluates its sewer system and financial capacity for providing service and maintenance of the system. The District uses its adopted policies, ten-year CIP, and budgeting process to guide district operations.

One of the significant issues identified in this service review is that the District's practice related to out of agency sewer service is not in compliance with Government Code §56133. The District has extended service to parcels outside district boundaries without seeking LAFCO approval, and has not submitted annexation proposals, although property owners have agreed to annexation. However, the District currently is preparing applications for annexation of these parcels.

LAFCO is responsible for carrying out the State's policy that encourages orderly growth and development through the logical formation and determination of local agency boundaries. Under Government Code §56000 et seq., LAFCO is given authority to establish boundaries and services for cities and special districts within the county. In 1994, a provision was added to the Government Code requiring local agencies to receive approval from LAFCO to extend municipal services outside their jurisdictional boundaries (Government Code §56133). This section states that, "A city or district may provide new or extended service by contract or agreement outside of its jurisdictional boundaries only if it first requests and receives written approval from the

Commission.” Further, the law provides that the Commission may authorize a city or district to provide new or extended services: a) outside its jurisdictional boundaries but within its sphere of influence (SOI) in anticipation of a later change of organization; or b) outside its jurisdictional boundaries and outside its SOI to respond to an existing or impending threat to public health or safety.

CCCSD needs to update its procedures to ensure compliance with the State Government Code.

5.9 Government Structure Options

CCCSD provides wastewater collection, treatment, and disposal services, including recycled water, within its service area in central Contra Costa County. In addition, the District provides treatment and disposal services for the cities of Concord and Clayton. In conjunction with MVSD and the Cities of Concord, Clayton, and San Ramon, CCCSD operates a permanent household hazardous waste collection facility that serves the central county region. The District is serving an estimated 180 parcels that are outside its current boundaries, and there are several small islands surrounded by the District and within its SOI. Due to urbanization and projected growth, there will be an increased need within this area for the services provided by the District, and the District has planned for service needs through its Collection System Master Plan and the annually updated ten-year CIP. The District’s eastern boundary is contiguous to the boundary for the Delta Diablo Sanitation District (DDSD) and its southern boundary is contiguous to the boundary for DSRSD. MVSD’s boundaries and SOI are contiguous to CCCSD on all sides, since it is an island within CCCSD’s service area. Four government structure options were identified:

- Maintain the status quo
- Annex areas outside District boundaries receiving service
- Annex islands within the District’s SOI
- Consolidate sewer service with adjacent wastewater service providers, including MVSD, City of Concord, DDSD, and/or DSRSD

Maintain the status quo: The District is currently providing wastewater services for residents and businesses within its boundaries, as well as to some parcels outside its boundaries. The District is also providing approximately 1.5 mgd of recycled water for landscape irrigation use. The District is providing adequate service, maintains its infrastructure, and is financially sound. The benefits of this option are continuation of service and economies that benefit ratepayers for wastewater service and water service. The disadvantage to this option is that it does not clean up boundary issues for areas where service has already been extended.

Annex areas outside District boundaries receiving service: The District is providing service to an estimated 180 properties outside its current boundaries. CCCSD could request that LAFCO approve annexation of these parcels into the District. The advantage of this option is to clean up boundary issues associated with service areas. The parcels need to be evaluated to determine their location with respect to current boundaries and the local agency adopted Urban Limit Lines. (The District currently is preparing applications for annexation of these parcels.)

Annex islands within the District's SOI: There are several islands surrounded by the District. In areas where there are concerns due to failing septic systems, the provision of municipal wastewater services would address public health issues; however with no existing wastewater collection system, there would be significant infrastructure costs. Further study would be needed to determine the wastewater infrastructure needs, costs, and funding sources to provide services to these areas. The advantages of this option are to clean up boundary issues associated with service areas and to avoid or alleviate public health issues.

Consolidate sewer service with adjacent wastewater service providers: CCCSD shares boundaries with DDSO to the northeast, MVSD to the north, the City of Concord to the east, and DSRSD to the south. The advantages of this option may include economies of scale due to operational efficiencies. However, the wastewater collection, conveyance, and treatment systems of the agencies are designed to leverage the use of gravity and proximity to permitted discharge facilities. The agencies are focused on serving the needs of the communities within their respective service areas. A consolidation could result in increased costs, loss of efficiency, and loss of local control over capital improvements. Consolidation would require further study to determine whether there would be real operational efficiencies, as well as the potential benefits and costs. There may be significant institutional impediments to some consolidations, such as with DSRSD, a bi-county district that also provides water service.

5.10 Local Accountability and Governance

CCCSD operates under the oversight and guidance of a Board of Directors that includes five voting members. The Directors are elected at large and serve staggered four-year terms. The District's governance is summarized in *Table 5.5* below.

Table 5.5
Central Contra Costa Sanitary District Governance

Date Formed:	1946		
Statutory Authorization:	Sanitary District Act of 1923 (Health and Safety Code §6400 et seq.)		
Board Meetings:	District Office, 1 st and 3 rd Thursdays of each month at 2:00 pm		
Member	Title	Term Expires	Compensation*
Gerald R. Lucey	President	2010	\$221/mtg
Barbara D. Hockett	President Pro Tem	2008	
James A. Nejedly	Director	2008	
Michael R. McGill	Director	2010	
Mario M. Menesini	Director	2008	

** Directors are also eligible to receive health and dental benefits comparable to other employees.*

CCCSD’s website (www.centralsan.org) includes a variety of information pertaining to District services, rates, finances, and the capital improvement plan, as well as District regulations and Board meeting agendas and minutes. Meeting notices, agendas, and supporting documentation are posted at least 72 hours in advance at the District office and online. The District publishes a newsletter for its customers twice a year.

The District has several educational programs for students, businesses, and residents. CCCSD offers an online guide, “The Less-Toxic Home and Garden”, with extensive information to assist residents on limiting the use of toxic chemicals in the home.

5.11 Sphere of Influence Recommendations

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires that LAFCO review and update the sphere of influence (SOI) for each of the special districts and cities within the county.²

CCCSD provides wastewater collection, treatment, and disposal services for Danville, Lafayette, Moraga, Orinda, Pleasant Hill, and Walnut Creek, as well as a portion of Martinez and San Ramon and unincorporated areas within central Contra Costa County. The District also provides wastewater treatment and disposal for the cities of Concord and Clayton. Due to urbanization, projected growth, and increasingly stringent water quality regulations, there will be an increased need within central Contra Costa County for the services provided by the District.

~~Two~~ Three potential options are identified for the CCCSD SOI:

² State of California Government Code Section 56425 et seq.

- **Retain the existing SOI:** If LAFCO determines that the existing government structure is appropriate, then the existing SOI should be retained. This option would enable the District to continue to include the areas within its SOI in its long-term facilities and capacity planning based on the adopted land use.

- **Adjust the SOI to be consistent with the local agency adopted Urban Limit Lines (ULLs) within central Contra Costa County:** If LAFCO determines that CCCSD has the capacity to continue to serve the area within the ULL as supported by this MSR and further determines that it would benefit the region to limit the area where wastewater service could be provided, then adjusting the District's SOI would be appropriate. This option would expand the District's SOI to include areas within the ULLs that may need wastewater services from CCCSD in the future. It would also reduce the District's SOI in areas outside the ULLs, including areas where there are septic system operational constraints such as the Alhambra Valley. This option could potentially result in public health and environmental issues as these areas would not have a sanitary sewer alternative.

- **Expand the District's SOI to include areas within the ULL that are not currently within the District's SOI and remove undeveloped areas outside the local agency adopted ULLs from the District's SOI:** This option would make the District's SOI consistent with the ULL, except for developed areas outside the ULL that are already within the District's boundaries or are on septic system and may need sanitary sewer service in order to prevent public health and environmental issues (namely Alhambra Valley). For example, there is an area within the District's SOI south of Clayton that is designated as Parks and Recreation on the County's General Plan Land Use map (for the Mt. Diablo State Park). This area will not be developed and is not expected to need sanitary sewer service.

As discussed in *Section 5.9*, further study would be needed to determine whether operational efficiencies, cost savings, and other benefits would be achieved through consolidating with other wastewater service providers. The systems are separate and are designed to meet local conditions and use gravity flow where possible. Each district has planned for treatment capacity and disposal methods that are efficient and cost effective for their service area. An in-depth evaluation of efficiencies and cost savings would be necessary before determining if this is a viable alternative.

SOI Recommendation

CCCSD provides wastewater conveyance, treatment, and disposal within the central portion of the county and uses the respective General Plans for the cities and County along with other planning efforts to plan for the future service needs of the area. Areas within the ULLs may develop and eventually need sanitary sewer service from CCCSD. Therefore, it is recommended that LAFCO adjust CCCSD's sphere of influence to include those areas within the ULLs that are

**5.0 Central Contra Costa Sanitary District
Wastewater Service**

not currently within its SOI (excluding the area served by DSRSD) and to reduce the District’s SOI outside the ULLs to exclude undeveloped areas. Due to the potential for public health and environmental impacts associated with failing septic systems, CCCSD should include areas that may need sanitary sewer service within its long-term facilities and capacity planning.

The analysis of SOI issues is included in *Table 5.6* below.

**Table 5.6
Central Contra Costa Sanitary District
SOI Issue Analysis**

Issue	Comments
SOI Update Recommendation	Adjust CCCSD's SOI to include those areas within the voter approved ULLs that are not currently within its SOI (excluding the area served by DSRSD) and reduce the District's SOI outside the ULLs to exclude undeveloped areas.
Services authorized to provide	Wastewater collection, conveyance, treatment, disposal, recycled water, household hazardous waste collection
Existing and Planned Land Uses and Policies	The District has no land use authority. County and city plans include land uses and population growth that will need increased wastewater services and recycled water supplies. The County and some cities have adopted Urban Limit Lines; however in certain areas there is existing development outside the ULL that uses septic systems. County and city policies support the provision of adequate wastewater service for residents and businesses as well as the protection of public health and the environment.
Potential effects on agricultural and open space lands	Although there are agricultural and open space lands within the District's SOI and boundaries, wastewater services do not by themselves induce or encourage growth on agricultural or open space lands. No Williamson Act contracts would be affected.
Opportunity for Infill Development rather than SOI expansion	The District has no land use authority and has no control over the location of infill development.
Projected Growth in the Affected Area	Population is expected to increase by 20% over the next 23 years to 382,583 residents. There will be an increased need for comprehensive wastewater services, including a reliable recycled water supply.
Services to be Provided to any areas added to the SOI	Wastewater conveyance, treatment, disposal, recycled water, household hazardous waste collection
Service Capacity and Adequacy	The District is providing adequate service, is financially stable, and has the capacity to continue to provide services within its boundaries. The District has planned for capital needs based on projected growth and is implementing projects to extend the life of existing infrastructure and increase capacity where necessary.
Location of Facilities, Infrastructure and	The District provides services within central Contra Costa County. The District's

Table 5.6
Central Contra Costa Sanitary District
SOI Issue Analysis

Issue	Comments
Natural Features like rivers and ridgelines	offices and treatment plant are located in Martinez, and the Collection System Operations facility is centrally located in Walnut Creek. The District discharges to Suisun Bay.
Effects on Other Agencies	Changing the District's SOI as recommended would create a wastewater planning area that is consistent with city and County planning boundaries, and would allow the District to address future public health and environmental impacts in accordance with County policies
Potential for Consolidations or other Reorganizations when Boundaries Divide communities	The District's current boundaries encompass portions of Martinez and San Ramon. Consolidation with an adjacent wastewater service provider would require additional study.
Social or economic communities of interest in the area	The District was formed in 1946 to serve central Contra Costa County. The District collects service charges and receives a portion of the 1% property tax. Capital expansion is funded by new connection charges and capital contributions from Concord. Property owners within the area and ratepayers have an economic interest in receiving services from this investment.
Willingness to serve	The District wishes to continue to provide services within its boundary and to continue to include areas within its existing SOI in its long-term facilities and capacity planning.

5.12 Determinations

5.12.1 Growth and Population

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

The Central Contra Costa Sanitary District (CCCSD) provides sewage collection and wastewater treatment for Danville, Lafayette, Moraga, Orinda, Pleasant Hill, and Walnut Creek, as well as a portion of Martinez and San Ramon and unincorporated areas within central Contra Costa County. The District also provides wastewater treatment for the cities of Concord and Clayton. The District's collection area encompass an estimated 142 square miles. The District's collection area encompass an estimated 142 square miles. The District estimates that it is serving 448,700 residents as of January 1, 2007, including 314,400 within District boundaries and 134,300 by contract in Concord and Clayton. The District is projecting a population of 377,355 within District boundaries in 2035.

There will be an increased need for cost-effective wastewater services within central Contra Costa County given current urban land uses, projected growth, aging wastewater collection and/or septic systems, and increasingly stringent water quality standards.

5.12.2 Infrastructure Needs or Deficiencies

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

CCCSD's wastewater infrastructure consists of a collection and conveyance system, with treatment and disposal facilities and a water reclamation facility. The District's infrastructure is in good condition. Through its CIP, the District is addressing its need to renovate or replace aging infrastructure. The most significant infrastructure needs are associated with the District's collection and conveyance system. The District is implementing its Sewer Renovation and Replacement Program, which will rehabilitate sewer lines and assure capacity. The District uses the 2000 Collection System Master Plan Update, CCTV inspection program, maintenance records, and a ten-year CIP to plan for and prioritize infrastructure needs. The Collection System Master Plan Update will be revised in 2008.

5.12.3 Financing Constraints and Opportunities

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

CCCSD's primary sources of operating revenue are sewer service charges and the service charge for the City of Concord. The District also receives a portion of the one-percent property tax levied by Contra Costa County. Capital contributions are a significant source of revenue used to fund infrastructure improvements.

CCCSD uses a pay-as-you-go approach for most capital needs. The District has a ten-year financial plan for forecasting revenues, expenses, and fund balance. The model is used in reviewing the sewer service charge and Concord service charge as well as other fees and charges annually to ensure adequate revenues for operations, maintenance, capital needs, and debt service. The District has the financial resources to maintain the infrastructure and provide adequate service.

5.12.4 Cost Avoidance Opportunities

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

CCCSD controls costs for the services provided through the use of a ten-year planning horizon for capital needs and leveraging the use of shared resources and facilities with other wastewater service providers in central Contra Costa County. The regional Household Hazardous Waste Collection Facility, operated in cooperation with MVSD, the cities of Concord and Clayton, and

the City of San Ramon (for southern San Ramon), is part of a broad effort to prevent toxic products from entering the sewer system, which could increase treatment costs and require significant capital investment.

The San Francisco RWQCB has recently developed a total maximum daily load (TMDL) for mercury for discharges to the San Francisco Bay. The TMDL establishes the allowable limit for mercury that can be discharged from each treatment plant. In anticipation of the TMDL, CCCSD has focused its efforts to control mercury at the source, such as dental offices, in addition to reducing mercury contribution to the effluent from District treatment processes.

5.12.5 Opportunities for Rate Restructuring

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

CCCSD reviews its rates and charges annually to ensure that revenues are adequate to cover projected operational costs, capital improvement needs, and debt service. The District has a flat rate structure for residential properties which is cost effective to administer; non-residential properties pay rates based on wastewater volume and loading.

5.12.6 Opportunities for Shared Facilities

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

CCCSD shares facilities and resources with other wastewater service providers, including providing treatment and disposal services for Concord and Clayton. The District also partners with other agencies to provide a permanent household hazardous waste collection facility to serve central Contra Costa County.

CCCSD's nearest planned sewer main on Alhambra Valley Road will be less than one mile east of the entrance to County Sanitation District No. 6 (Stonehurst residential development). The San Francisco Bay Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements for SD No. 6 mandates connection of the development to an Alhambra Valley sanitary sewer and closure of the development's onsite wastewater treatment and disposal system. The future provision of CCCSD sanitary sewer service to Stonehurst was included in CCCSD's 2003 "Facilities Plan for Wastewater Utility Services to Alhambra Valley" and collection system and treatment capacity are available.

5.12.7 Evaluation of Management Efficiencies

Purpose: To evaluate management efficiencies of the jurisdiction.

CCCSD regularly evaluates its sewer system and uses a ten year planning horizon for capital improvements and financial needs. The District uses its adopted policies, ten-year CIP, and budgeting process to guide district operations.

One of the significant issues identified in this service review is that the District's practice related to out of agency sewer service is not in compliance with Government Code §56133. The District has extended service without requesting LAFCO approval; however, the District is preparing applications for annexation of these parcels. District procedures need to be reviewed and updated to ensure compliance with the Government Code.

5.12.8 Government Structure Options

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

CCCSD provides wastewater collection, treatment, and disposal services, including recycled water, within its service area in central Contra Costa County. In addition, the District provides treatment and disposal services for the cities of Concord and Clayton. Four government structure options were identified:

Maintain the status quo: The District is currently providing comprehensive wastewater services within its boundaries, as well as to some parcels outside its boundaries. The District is also providing approximately 1.5 mgd of recycled water for landscape irrigation use. The District is providing adequate service, maintains its infrastructure, and is financially sound. The benefits of this option are continuation of service and economies that benefit ratepayers for wastewater service and water service. The disadvantage to this option is that it does not clean up boundary issues for areas where service has already been extended.

Annex areas outside District boundaries receiving service: The District is providing service to an estimated 180 properties outside its current boundaries and within its SOI. The advantages of this option are to clean up boundary issues associated with service areas.

Annex islands within the District's SOI: There are several islands surrounded by the District. In areas where there are concerns due to failing septic systems, the provision of municipal wastewater services would address public health issues; however with no existing wastewater collection system, there would be significant infrastructure costs. Further study would be needed to determine the wastewater infrastructure needs, costs, and funding sources to provide services to these areas. The advantages of this option are to clean up boundary issues associated with service areas and to avoid or alleviate public health issues.

Consolidate sewer service with adjacent wastewater service providers: CCCSD shares boundaries with the Delta Diablo Sanitation District, Dublin San Ramon Services District,

Mountain View Sanitary District, and the City of Concord. The advantages of this option may include economies of scale due to operational efficiencies. However, a consolidation could result in increased costs, loss of efficiency, and loss of local control over capital improvements. Consolidation would require further study to determine whether there would be real operational efficiencies, as well as the potential benefits and costs.

5.12.9 Local Accountability and Governance

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

CCCSD is governed by a five-member Board of Directors elected at large by voters within the District. District Board meetings are open to the public, and information on the District is available on its website.