

SECTION 8.0

WEST COUNTY WASTEWATER DISTRICT

WASTEWATER SERVICE

8.1 Overview

The West County Wastewater District (WCWD) provides wastewater collection, treatment, and disposal services for a 16.9 square mile area that includes the City of San Pablo; the northern portion of the City of Richmond; the Crestview portion of the City of Pinole; the unincorporated communities of El Sobrante, Tara Hills, Rollingwood, and Bayview; and other unincorporated areas within Contra Costa County. The District provides contract services to the Crockett Community Services District for lift station maintenance, sanitary sewer maintenance, emergency response, and engineering support for the Crockett wastewater collection system. WCWD also maintains a large County-owned stormwater pump station and the West County Justice Center wastewater pump station by contract with the County.

WCWD is an independent district, formed in 1921 as the San Pablo Sanitary District and reorganized in 1923 pursuant to the Sanitary District Act of 1923 (Health & Safety Code §6400 et seq.). In 1978, the District changed its name to the West Contra Costa Sanitary District, and in 1992, changed to the West County Wastewater District. Adjacent wastewater service providers include the City of Richmond Municipal Sewer District and the Stege Sanitary District to the south, and the City of Pinole to the northeast. The Wildcat Canyon Regional Park and the San Pablo Reservoir lie to the southeast.

The District's sphere of influence (SOI) is coterminous with the District's exterior boundaries; however, there are numerous islands (many of which are single parcels) that are not part of the District but are within the SOI. The District is providing service to an estimated 45 parcels outside the District boundaries and current SOI. These parcels are located in East Richmond Heights, with service extended into the area in 1958 under agreement with the City of Richmond. This service agreement was renewed in 1967. Government Code §56133 requires that the District request LAFCO approval for out of agency service after January 1, 2001. 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.

WCWD's wastewater collection system consists of 242.3 miles of gravity pipeline with 18 pump stations. The District's Water Pollution Control Plant (WPCP) has a design capacity of 12.5 million gallons per day (mgd) and average dry weather flow of 7.9 mgd. The District provides approximately 3 mgd of secondary effluent to the East Bay Municipal Utility District's (EBMUD) North Richmond Water Reclamation Plant (NRWRP). The effluent is further treated

**8.0 West County Wastewater District
Wastewater Service**

at the NRWRP to produce tertiary treated recycled water for use in the Chevron Refinery cooling towers. EBMUD’s Richmond Advanced Recycled Expansion (RARE) Water Project will use additional secondary effluent from WCWD to provide up to 4 mgd of advance treated recycled water to replace potable water used as boiler feedwater at the refinery.

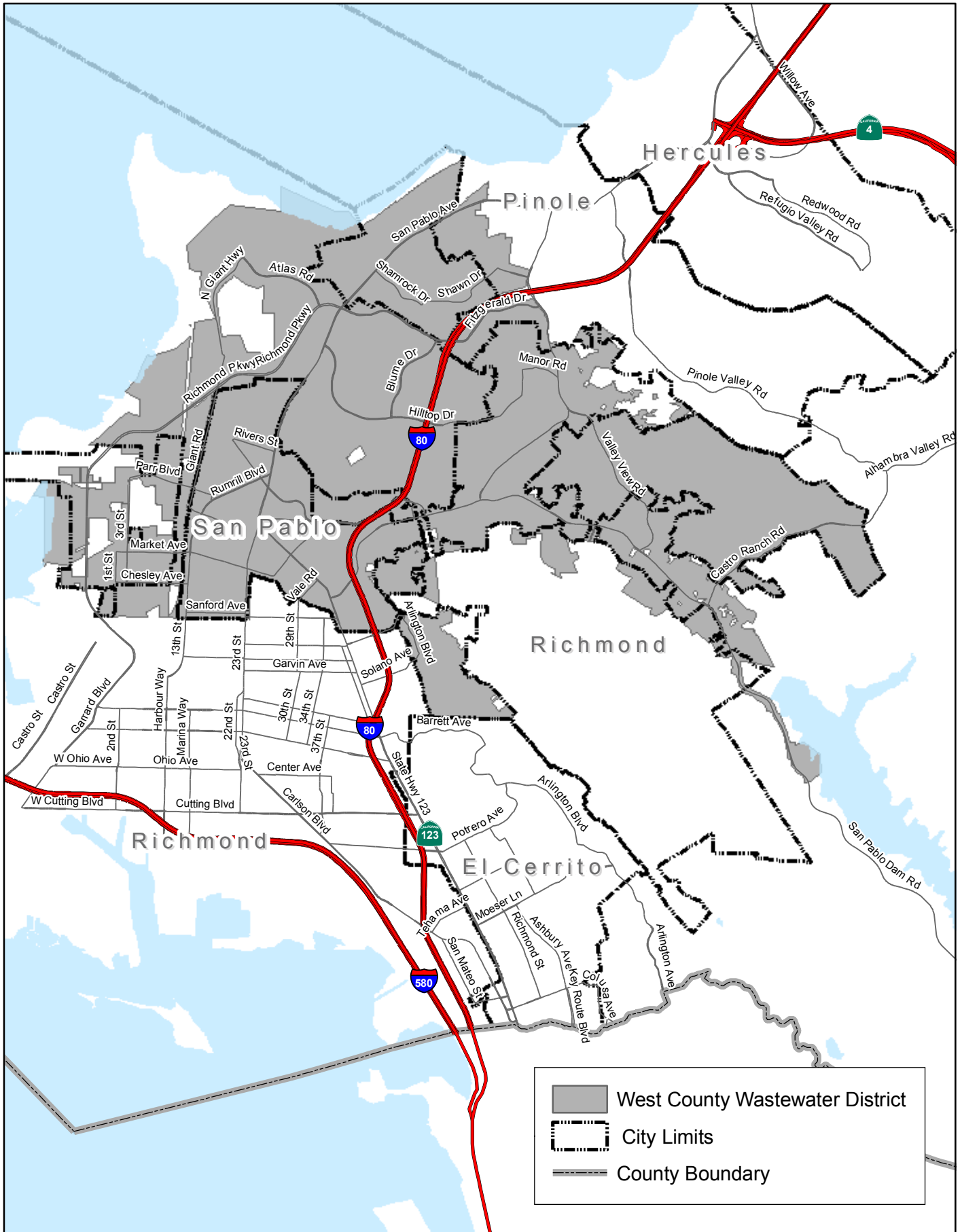
Secondary effluent that is not used at the NRWRP is conveyed to the Richmond Water Pollution Control Plant where effluent from both plants is dechlorinated and discharged to San Francisco Bay through a deep water outfall. WCWD, the City of Richmond, and the Richmond Municipal Sewer District No. 1 participate in the West County Agency, a joint powers authority formed in 1977 for the purpose of constructing and maintaining effluent and sludge disposal facilities, including the Bay outfall, 5-mile pipeline, dechlorination facilities, biosolids drying beds, and laboratory facilities.

WCWD’s profile is shown in *Table 8.1* and a map of the District’s boundary and current SOI are shown in *Figure 8.1*.

Table 8.1
West County Wastewater District
Wastewater Service Information

Service Area / Financial Summary	
District Office	2910 Hilltop Drive Richmond, CA 94806 (510) 222-6700 www.wcwd.org
Service Area:	16.9 square miles
Population:	88,938 (Year 2007) / 102,022 Year 2030 Average Annual Growth Rate = 0.6%
Operating Budget (FY 2007-2008):	Revenues / Expenditures: \$8,400,000 / \$11,800,000 Net Assets at June 30, 2007: \$90,300,000
Wastewater Service Data	
Services	Wastewater Collection, Treatment, Disposal
Sewer Service Accounts	30,795 residential - 976 commercial - 5 industrial
Miles of Sewer Gravity Pipeline / Number of Pump Stations	242.3 miles / 18 pump stations
Average Age of Collection System	Approx. 51 years
Avg. Dry Weather Flow / Avg. Wet Weather Flow	7.9 mgd / 14.0mgd
Wastewater Treatment / Design Capacity	WCWD Water Pollution Control Plant – 12.5 mgd dry weather, 21 mgd wet weather
RWQCB Region	Region 2 – San Francisco Bay
Orders	Order No. R2-2008-0003 – Waste Discharge Requirements Order No. R2-2008-0004 – Revised Tentative CDO Order No. 2006-0003 – Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

West County Wastewater District



8.2 Growth and Population Projections

WCWD's boundaries encompass a 16.9 square mile service area that includes the following areas: approximately 7.9 square miles within the northern portion of the City of Richmond; 2.7 square miles within the City of San Pablo; 0.4 square miles within the Crestview portion of the City of Pinole; and 5.9 square miles of unincorporated area, including the communities of El Sobrante, Tara Hills, Rollingwood, and Bayview. The current estimated population within the District's boundaries is 88,938 residents. Based on the Association of Bay Area Government's (ABAG) 2005 Census Tract Projection data, this is expected to reach 102,022 by 2030 with an average annual growth rate of 0.6 percent.

Land uses within the District's boundaries include single and multi-family residential, commercial, industrial, open space, and watershed. With the exception of a small area along San Pablo Dam Road adjacent to San Pablo Reservoir, the District's boundaries are within the County Urban Limit Line approved by the voters in 2006.

The City of Richmond's General Plan (1998 update) encourages the development of multi-family housing within transit-oriented development areas, new opportunities for light industrial and commercial uses, and general business and economic development enhancement goals through increased business attraction and retention. The County's 2020 General Plan has created policies to preserve the semi-rural, suburban character with emphasis on single-family homes in El Sobrante. These policies also discourage strip mall development, and advocate preserving areas outside EBMUD and WCWD as open space. The City of San Pablo's General Plan discusses the need for additional housing for seniors, multi-family housing, and additional commercial opportunities. To address these needs, the Plan sets forth policies for infill housing and additional commercial development.

Growth within WCWD's service area will primarily occur through infill and redevelopment. In the three year period of FY 2004-2006, 1,876 permits were completed for new construction, of which 89 percent were for single and multi-family residential properties. Although new development will slow due to economic conditions, the District will need to continue to implement its capital improvement program, including pipeline replacements and treatment plant improvements, to ensure adequate service levels for existing and new customers.

8.3 Infrastructure Needs or Deficiencies

WCWD's infrastructure includes a wastewater collection and conveyance system and treatment plant; the disposal facilities are shared with the City of Richmond and the Richmond Municipal Sewer District through the West County Agency joint powers authority. Wastewater from WCWD's service area is treated at the District's Water Pollution Control Plant in North

Richmond. The secondary effluent is either conveyed to the EBMUD North Richmond Water Reclamation Plant (NCWRP) for further treatment and use at Chevron’s Richmond Refinery or conveyed to the City of Richmond Water Pollution Control Plant where it is dechlorinated prior to discharge in San Francisco Bay. WCWD is within the jurisdictional boundaries of the San Francisco Bay Regional Water Quality Control Board (RWQCB) (Region 2). *Table 8.2* summarizes WCWD’s wastewater system facilities:

Table 8.2
West County Wastewater District
Wastewater System Overview

	Quantity
Sewer Service Accounts	30,795 residential 976 commercial 5 industrial
Sewer Gravity Pipelines / Force Mains	242.3 miles / 11.0 miles force main
Pump Stations	18
Average Age of Collection System	51 years
Average Dry Weather Flow / Average Wet Weather Flow	7.9 mgd 14 mgd
Treatment Plant Design Capacity	12.5 mgd Dry Weather / 21 mgd Wet Weather
Water Reclamation & Effluent Disposal	Up to 6 mgd to EBMUD NRWRP or discharged to San Francisco Bay

8.3.1 Collection and Conveyance System

WCWD serves approximately 31,776 accounts, of which 97 percent are residential, 3 percent are commercial, and 0.01 percent are industrial. The District operates and maintains pipelines, force mains, and pumping stations that convey wastewater to the District-owned wastewater treatment plant in North Richmond. The District’s service area is characterized by hilly terrain; the collection system operates with 18 pump stations and gravity flow. San Francisco Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (Order No. Rs-2001-0144) notes that WCWD has performed extensive preventive maintenance of its sewer system over the years. The District cleans approximately 1.3 million feet of pipeline per year on computer scheduled work orders. The District has in-house capabilities for power rodding, hydro-flushing, and pipeline video inspection.

WCWD’s collection system includes approximately 117 miles of 6-inch clay pipe, much of which was constructed prior to 1970. The concrete used to seal the old joints has been gradually decomposing, leading to increased infiltration and inflow. To avoid plugging common with smaller diameter pipes, the District is replacing 6-inch pipelines with 8-inch minimum diameter pipe and using a longer lasting joint material. This reduces the potential for sanitary sewer overflows and infiltration and inflow.

In 2001, the District conducted a Wastewater Collection System Capacity Analysis that identified then-existing collection system limitations using a 2015 future land use scenario. The study concluded that the District's collection system has adequate capacity to convey its wastewater flow during 10-year storm events under dry soil conditions and 5-year storm events with saturated wet soil conditions. The highest priority pipeline project identified through that study has been completed. The District is addressing other collection system issues through its Capital Improvement Program that uses a five-year planning horizon.

Within the past three years, WCWD completed upsizing ~~all 54-inch diameter~~ pipelines, alleviating overflows during extreme weather events. Within the same period, WCWD constructed or replaced over 38,000 feet of pipeline.

The District's Five Year Capital Improvement Plan (FY 2007/2008 through 2012/2013) includes approximately \$14,000,000 in projects for the collection and conveyance system.

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 WCWD (as part of the San Francisco Region) must now report all SSOs to the CIWQS. According to the online database, the District had five reported SSOs from May 2, 2007 that exceeded 500 gallons. A major SSO occurred in January 2008 due to a blockage caused by unknown debris or an object in a mainline that was repaired in 2004. The District has updated maintenance for this 6-inch diameter pipe from an annual interval to 6 months. As noted above, the District uses computer scheduling for its sewer line maintenance activities.

WCWD 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. WCWD has an Overflow Emergency Response Plan that includes an on-call response team.

The District is reducing the risk of future SSOs through its Sewer Ordinance update that requires testing of building sewers and sewer laterals under specific circumstances. Sewers and laterals that do not pass the prescribed tests must be repaired or replaced per the District's policies.

8.3.2 Treatment Plant

WCWD's Water Pollution Control Plant (WPCP) is located at 2377 Garden Tract in North Richmond. The plant has a permitted dry weather capacity of 12.5 mgd and 21 mgd wet weather

capacity; the current average dry weather flows are approximately 7.9 mgd. The plant has three flow equalization basins for managing wet weather flows. The wastewater receives secondary treatment and is either directed to EBMUD's North Richmond Water Reclamation Facility (NRWRP) or to the City of Richmond's WPCP. The wastewater receives tertiary treatment at the NRWRP and is used in the cooling towers at Chevron's refinery or for irrigation at the Richmond Country Club.

The District's Five Year Capital Improvement Plan (FY 2007/2008 through 2012/2013) includes approximately \$6,000,000 in projects for the WPCP, including processing improvements and a standby generator.

WCWD is working with the cities of Pinole and Hercules on two parallel studies to evaluate the infrastructure needs and costs for all wastewater flows from Hercules and Pinole to be directed to WCWD's WPCP; this approach is an alternative to improving the wastewater treatment plant in Pinole. The impact to WCWD's treatment facilities and conveyance to the EBMUD NRWRP or the City of Richmond WPCP for disposal will be assessed in the studies. The studies are expected to be complete in 2008.

8.3.3 Disposal Facilities

In 1977, WCWD, the City of Richmond, and the Richmond Municipal Sewer District entered into a joint powers agreement, the West County Agency (WCA), to construct and maintain effluent and sludge disposal facilities including a 5-mile pipeline, dechlorination processing, biosolids drying beds, laboratory facilities and the San Francisco Bay outfall. Treated wastewater from the WCWD WPCP that is conveyed to the Richmond WPCP is combined with the effluent from the Richmond plant, dechlorinated, and discharged through a combined 72-inch diameter deep-water outfall into central San Francisco Bay. Increasingly stringent water quality standards will require that WCWD and Richmond continue to implement improvements to their treatment processes and carry out preventive programs to avoid wastewater loading that requires additional treatment. In January 2008, the Regional Board adopted Order No. R2-2008-0004, a Revised Tentative Cease and Desist Order, with effluent limitations that will have to be met by 2016. The Order includes time schedules for compliance; capital improvements may not be necessary if compliance can be met through Best Management Practices and other efforts.

Water quality regulations will become increasingly stringent and compliance will be costly. WCWD's ability to avoid discharge by directing secondary effluent to the EBMUD NRWRP and the future EBMUD RARE project, provides significant short term and long term benefits to the environment as well as to the ratepayers.

8.3.4 Summary

WCWD’s infrastructure consists of a wastewater collection and conveyance system and treatment facilities. The disposal facilities are owned by the West County Agency, a joint powers authority between WCWD, the City of Richmond, and the Richmond Municipal Sewer District. WCWD’s infrastructure is in good condition. Through its CIP, the District is addressing the need to renovate or replace aging infrastructure. The District carries out a preventive maintenance program for the collection system, using its maintenance records, video inspections, and a five-year CIP to plan for and prioritize infrastructure needs. The District is also maintaining its treatment plant and works with EBMUD and the City of Richmond to ensure water quality meets the required objectives.

8.4 Financing Constraints and Opportunities

WCWD’s primary source of operating revenue is sewer service charges. The District also receives a portion of the one percent property tax. Additional revenue is derived from interest income on investments, connection fees, and service contracts. WCWD provides contract operations and maintenance services to several outside agencies, which increases revenue opportunities for the District.

Table 8.3 summarizes the financial history of the District.

Table 8.3
West County Wastewater District
Financial Summary

	FY 2004/2005 Actual	FY 2005/2006 Actual	FY 2006/2007 Est. Final	FY 2007/2008* Budgeted
Operating Revenues	\$8,807,547	\$8,635,219	\$8,209,037	\$8,356,704
Operating Expenses	\$9,903,912	\$10,795,007	\$11,640,428	\$11,827,509
Net Non-operating Revenues / (Expenses)	(\$851,841)	\$1,557,415	\$2,574,098	\$2,136,864
Contributions	\$2,240,629	\$3,357,568	\$357,839	\$1,311,114
Change in Net Assets	\$292,423	\$2,755,285	\$(499,454)	\$(23,007)
Net Assets, Beg of Year	\$87,747,199	\$88,039,622	\$90,794,907	\$90,295,453
Net Assets, End of Year	\$88,039,622	\$90,794,907	\$90,295,453	\$90,272,446

WCWD maintains five reserve funds: 1) Rate Stabilization; 2) Operating; 3) Insurance, 4) Catastrophic Insurance, and 5) Capital Improvement and Replacement. At June 30, 2007, the District had the following reserve fund balances:

▪ Rate Stabilization	\$3,419,440
▪ Operating	\$800,000
▪ Insurance	\$300,000
▪ Catastrophic Insurance	\$500,000
▪ Capital Improvement and Replacement	\$14,400,000

WCWD uses a pay-as-you-go approach and has no long term debt. Revenues that may be used for capital projects are expected to be fairly consistent at \$2 million per year unless the State shifts property revenue from the special districts; capital expenditures of \$20,300,000 are planned over the five year period. Based on the FY 2007-2008 Operating and Capital Budget, the District anticipates spending down capital reserves from \$14,700,000 in FY 2007-2008 to \$5,200,000 in FY 2012-2013. WCWD may need to increase rates in order to maintain adequate revenues for the pay-as-you-go approach.

8.5 Cost Avoidance Opportunities

WCWD is leveraging several opportunities that will result in cost savings, some of which represent significant green strategies that support sustainability.

In December 2007, the District broke ground on a 1.0 megawatt solar electricity generating system for its WPCP. The District anticipates that the system will offset 30 percent of the power currently purchased through Pacific Gas & Electric (PG&E) to operate the plant. The project is being implemented through PG&E's Self Generation Incentive Program and will result in a rebate toward the entire cost of the project. The system is expected to be operational in late 2008.

The District is working with EBMUD to implement the Richmond Advanced Recycled Expansion (RARE) Water Project. EBMUD will construct new, advanced recycled water treatment facilities to provide recycled water to the Chevron Richmond Refinery to replace potable water currently used as boiler feedwater. The Project is expected to be operational by fall 2009. Upon completion, it is anticipated that all of WCWD's effluent in the summertime will be used at the NRWRP and RARE water project, supplying over half of the refinery's total water needs. This will reduce the cost to convey secondary effluent to the Richmond WPCP, as well as reduce costs for dechlorination and discharge.

WCWD implements a Pretreatment Program to inspect, monitor, and enforce regulations related to discharge from industrial users. The District's Pollution Prevention Program targets and educates commercial and residential users. The two programs aim to prevent harmful discharge from entering the wastewater system, which would then require greater effort and expense by the District to treat the waste prior to discharge.

WCWD recently amended its Sewer Ordinance to reduce sources of infiltration and inflow and reduce or eliminate sewage overflows. Effective April 1, 2008, the Ordinance requires almost all new building sewers and sewer laterals to pass specified tests. Defective building sewers and sewer laterals are prohibited. Existing building sewers and sewer laterals must be tested when plumbing changes cause a major increase in sewage flow. They must also be tested when there is a change in use, repair or replacement of the building sewer or sewer lateral, the need to protect the public's health and welfare, and sale or transfer of the property. Building sewers and sewer laterals that fail the required testing must be repaired or replaced at the property owner's expense. To assist in defraying some of the costs of replacing a sewer, the District offers a lateral replacement grant program which provides up to 50 percent or \$2,000 for laterals 100 feet and less up to a maximum of \$3,000 for longer laterals, towards the replacement cost.

8.6 Opportunities for Rate Restructuring

WCWD reviews its service charges and connection fees annually. The District charges an annual service charge for residential customers. The 2008-09 rate of \$190 per year reflects a \$10 increase over 2007-08 rates; the previous rate increase was in July 2004. The annual sewer service charge is collected through the property tax roll. A flat rate structure for residential sewer service is common. 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 generally outweighs the benefits for residential accounts.

Commercial customers pay a service charge based on water use. The rate varies depending on wastewater loading; the top rate is \$4.20 per 1,000 gallons of water delivered for food service accounts. Rates for industrial users are based on actual flow as well as chemical oxygen demand and suspended solids.

A portion of the one percent property tax collected on property within the WCWD sanitary sewer service area accrues to the District.

In addition, properties within the City of Richmond are assessed by the City of Richmond \$32 per Sewer Service Unit for the City's Stormwater Management Program. Industrial users are charged \$3.32 per Industrial Waste Unit.

The current wastewater service rates are summarized in *Table 8.4*.

Table 8.4
West County Wastewater District Service Area
2007-08 Wastewater Service Charge

Type	Rate
Single Family Residential	\$15/month (\$190/yr)
Commercial	\$1.35 - \$4.20/1000 gal

WCWD’s current connection fee for residential units is \$2,431 this fee has increased annually from \$2,431 in July 2004. The equivalent charge per dwelling unit for non-residential accounts is based on the \$2,111 connection fee times the maximum sewage flow, divided by 270 gallons per day. The District also charges toll fees for new construction, based on flow zone charges and density charges (dwelling units/acre).

8.7 Opportunities for Shared Facilities

WCWD currently shares facilities and resources with other agencies by providing contract services, delivering secondary effluent to EBMUD’s NRWRP for recycled water use, and by participating in the West County Agency JPA with the City of Richmond and the Richmond Municipal Sewer District. The opportunity to share treatment and disposal facilities with Pinole and Hercules is currently being evaluated.

WCWD provides contract services to the Crockett Community Services District for lift station maintenance, sanitary sewer maintenance, emergency response, and engineering support for the Crockett wastewater collection system. WCWD also maintains the Contra Costa County North Richmond Stormwater Pump Station, and the West County Detention Center wastewater pump station. In addition, the District provides support for the Richmond Country Club recycled water system. Finally, WCWD has an emergency response agreement with the Stege Sanitary District and the Richmond Municipal Sewer District.

Since 1995, WCWD has provided secondary effluent to EBMUD’s NRWRP. The effluent is further treated at the plant to produce tertiary treated recycled water for use in the Chevron refinery cooling towers. EBMUD is working with WCWD to implement the Richmond Advanced Recycled Expansion (RARE) Water Project. EBMUD is constructing new, advanced recycled water treatment facilities to provide up to 4 mgd of high-quality recycled water to replace potable water currently used as boiler feedwater at the refinery. The project is expected to be operational by fall 2009. It will provide multiple benefits, including reducing the quantity of treated wastewater effluent discharged to San Francisco Bay, and advancing the use of a reliable and sustainable water supply. The Chevron Refinery has an average daily demand of 12

mgd. Approximately 3 mgd of recycled water from the NRWRP is used for the cooling towers. Upon completion of the RARE project, it is anticipated that all of WCWD's effluent in the summertime will be used, supplying over half of the refinery's total water needs.

In addition to recycled water use at the Chevron refinery, EBMUD began supplying recycled water from WCWD in 1984 to the Richmond Country Club for irrigation. Approximately 150 acres are irrigated.

WCWD has been a member of the West County Agency JPA (WCA) for over 21 years with the City of Richmond and the Richmond Municipal Sewer District. WCA maintains effluent and sludge disposal facilities including the San Francisco Bay outfall, a 5-mile pipeline, dechlorination processing, biosolids drying beds and laboratory facilities.

There may be opportunities for WCWD to share its treatment and disposal facilities with Pinole and Hercules. WCWD has stated that the District could provide a more efficient level of service and cost to the cities of Pinole and Hercules for wastewater services than is currently provided at the treatment plant in Pinole. Studies were conducted in 1999 and 2004 to evaluate using the WCWD WPCP to provide treatment and disposal for Pinole and Hercules. However, the cities ultimately chose to operate a joint water pollution control plant in Pinole. Now, Pinole is planning to upgrade its aging treatment facilities. Due to site constraints, the preferred technology will not provide effluent quality that meets the existing outfall discharge permit requirements. In order to consider alternatives, WCWD and the two cities are collaborating on two parallel studies to evaluate the infrastructure needs and costs of directing all wastewater flows from Pinole and Hercules to the WCWD WPCP. The studies are expected to be completed in 2008.

8.8 Evaluation of Management Efficiencies

WCWD operates under the direction of the General Manager and oversight of a five-member elected Board of Directors. The Board has three standing committees that meet twice monthly to address District issues and provide guidance to the Board and District management: Administration and Operations, Finance, and Plans and Programs. The District regularly evaluates its sewer system for maintenance and capital needs. The District uses its five-year CIP, strategic planning, and two-year capital and operations budget to guide district operations.

8.9 Government Structure Options

WCWD provides wastewater collection, treatment and disposal services for the City of San Pablo; portions of the cities of Richmond and Pinole; the unincorporated communities of El Sobrante, Tara Hills, Rollingwood, and Bayview; and other unincorporated area within Contra

Costa County. There are several islands within the District's boundaries, which are completely surrounded by the District, but are within its SOI. It is anticipated that these islands will annex into the District when a requirement for sewer service arises. The District is also serving 45 parcels that are outside its current boundaries and SOI, located in East Richmond Heights. WCWD should explore annexation of this area giving the residents full participation in elections. There will be an increased need for cost-effective wastewater services within western Contra Costa County given current urban land uses, aging wastewater infrastructure, and increasingly stringent water quality standards. The District has planned for service needs through its CIP and rate structure.

Although EBMUD provides wastewater conveyance, treatment and disposal services within the East Bay, it does not provide local wastewater collection services, and a reorganization between the two districts is not considered an option at this time. WCWD shares its southeastern boundary with the Stege Sanitary District (SSD); however, the two systems are designed to take advantage of gravity flow and they use separate treatment and disposal facilities. Therefore, a reorganization of SSD and WCWD is not considered an option at this time.

Five government structure options were identified:

- Maintain the status quo
- Annex areas outside District boundaries receiving service
- Annex islands within the District's SOI
- Consolidate sanitary sewer service with the Richmond Municipal Sewer District
- Consolidate sanitary sewer service with the cities of Pinole and Hercules

Maintain the status quo: WCWD is currently providing wastewater collection, treatment and disposal services for residences and businesses within its boundaries. The District is providing adequate service, maintaining its infrastructure, and is financially sound. The District is rehabilitating its collection system and is implementing programs and practices that improve cost efficiency. Furthermore, the District is providing secondary effluent to EBMUD for further treatment and use at the Chevron Refinery and the Richmond Country Club. When the RARE project comes on line in 2009, the high-quality recycled water produced from WCWD's secondary effluent will offset significant potable water demand. The benefits of this option are continuation of service and economies that benefit ratepayers for both wastewater and water service.

Annex areas outside District boundaries receiving service: The District is providing service to an estimated 45 properties outside its current boundaries and SOI. WCWD 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.

Annex islands within the District's SOI: There are numerous islands surrounded by the District. In areas where there are concerns due to failing septic systems, the provision of municipal wastewater services would address environmental and public health issues. 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 sanitary sewer service with the Richmond Municipal Sewer District: The Richmond Municipal Sewer District is providing similar services adjacent to WCWD. Approximately 7.9 square miles (47 percent of WCWD's service area) is within the City of Richmond. The advantages of this option may include economies of scale due to operational efficiencies. However, the agencies are focused on serving the needs of the communities within their respective service areas and have already realized significant economies through the shared facilities of these two agencies. 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.

Consolidate sanitary sewer service with the cities of Pinole and Hercules: Studies were conducted in 1999 and 2004 regarding WCWD providing wastewater conveyance, treatment and disposal services for Hercules and Pinole. Although the studies indicated that it is feasible, they did not comprehensively evaluate the costs and benefits of a consolidation. There are two parallel studies currently underway to evaluate and determine costs to divert all wastewater flows from Hercules and Pinole to WCWD's facilities; however, similar to the previous studies, these are not consolidation studies. WCWD currently serves a small portion of the City of Pinole (0.4 square miles). The advantages of consolidation 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. The level of benefit could vary depending on geographic area as well as the service (collection, conveyance, treatment, and disposal). Further study would be required to determine whether there would be real operational efficiencies, as well as the potential benefits and costs.

8.10 Local Accountability and Governance

WCWD operates under the oversight and guidance of a Board of Directors elected at large by voters within the district. The District's governance is summarized in *Table 8.5* below.

Table 8.5
West County Wastewater District Governance

Date Formed:	December 19, 1921		
Statutory Authorization:	Sanitary District Act of 1923 (Health and Safety Code §6400 et seq.)		
Board Meetings:	District Office, 1 st and 3 rd Tuesday of each month at 8:00 am		
Member	Title	Term Expires	Compensation*
Alfred M. Granzella	President	2010	\$265.35/each date of attendance
Leonard L. Battaglia	Director	2008	
Michael T. Caine	Director	2008	
George H. Schmidt	Secretary	2010	
Paul C. Soltow, Jr.	Director	2010	

Directors are also eligible to receive the following benefits:

- Retirement (for Directors elected before 7-1-94 only) through CalPERS: 3% at 60 plan.
- Medical through CalPERS: District pays premiums up to \$1,224 for active employees/Directors and eligible retirees.
- Dental: Fully paid for Directors and dependents.
- Vision: Fully paid for Directors and dependents.
- Life Insurance: \$85,000 (at age 70 and older, a benefit reduction schedule applies).
- Employee Assistance Program: Fully paid for Directors and Dependents.

Meeting notices and agendas are posted at least 72 hours in advance at the District office and on the District’s website (www.wc wd.org). District meetings are open and accessible to the public. The District provides public information through its website, including agendas, meeting minutes, the Ordinance code, and other service information. Excerpts from the current Comprehensive Operating and Capital Budget are available online; the District should consider making more detailed financial information available, such as the complete operating and capital budget and financial statements.

The District has several community outreach programs, including the Student Outreach Program, a community calendar, and participation in community events. The Student Outreach Program includes school classroom visits and class tours of the wastewater treatment plant. Over 1,000 local school children between fourth and seventh grade participated in the program in 2006. The Community calendar is distributed to over 20,000 homes and businesses.

WCWD conducts a User Feedback Survey that has been in use for over 12 years. The District reported that eight years of ratings indicate an overall satisfaction rating of outstanding or above average by 93 percent of respondents.

8.11 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.¹

WCWD provides wastewater collection, treatment and disposal services for the City of San Pablo; the northern portion of the City of Richmond; the Crestview portion of the City of Pinole; the unincorporated communities of El Sobrante, Tara Hills, Rollingwood, and Bayview; and other unincorporated areas within Contra Costa County. There will be an increased need for cost-effective wastewater services within the WCWD service area given current urban land uses and increasingly stringent water quality standards. The District has planned for service needs through its five-year CIP and rate structure.

The District's SOI is coterminous with its exterior boundaries. The existing District boundaries include many small "islands" which it is anticipated will annex as the need for sewer services arise. The District is serving an estimated 45 parcels that are outside its current boundaries and SOI. These parcels are located in East Richmond Heights.

The District shares boundaries with adjacent wastewater service providers, including the Stege Sanitary District, Richmond Municipal Sewer District, and the City of Pinole. As discussed in *Section 8.9*, further study would be needed to determine whether operational efficiencies, costs 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. There is a study currently being conducted to evaluate directing all wastewater flows from Hercules and Pinole to the WCWD WPCP; however, the study is not evaluating the costs and benefits of a reorganization. A comprehensive evaluation of efficiencies and cost savings would be necessary before determining whether expanding WCWD's SOI to include Pinole and Hercules is appropriate.

Given the considerations outlined above, four options are identified for the WCWD SOI:

- **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

¹ State of California Government Code Section 56425 et seq.

District to continue to include the areas within its SOI in its long-term facilities and capacity planning based on the adopted land use.

- **Reduce the SOI:** If LAFCO determines that an area or community should be served by an agency other than WCWD (such as the City of Pinole, the Richmond Municipal Sewer District, or the Stege Sanitary District) then reducing the District’s SOI (and expanding the SOI of the other agency) would be appropriate. This would not change current service to those areas, but would result in the affected agencies adjusting capital and long-term operational planning.
- **Expand the SOI due to service provider change:** If LAFCO determines that an area or community should be served by WCWD rather than the current service provider, then expanding the District’s SOI (and reducing the SOI of the other agency, such as the Stege Sanitary District) would be appropriate. If WCWD were authorized to serve additional area in Richmond, Pinole, or Hercules, it would not require a change in the SOI of the affected city.
- **Expand the SOI to encompass existing out-of-agency service areas:** WCWD is serving 45 parcels outside the District’s boundaries and outside its SOI. If LAFCO determines that these parcels should be annexed to the District, then the District’s sphere will have to be updated prior to annexation. Annexations must be consistent with a District’s adopted SOI.

SOI Recommendation

It is recommended that LAFCO not expand WCWD’s SOI at this time to include the area of East Richmond Heights being served outside the District’s boundaries. The District is providing adequate service, is maintaining its infrastructure and has the capacity to serve the existing areas within the SOI, given current and planned land uses. The out-of-agency service areas must be included in the District’s SOI prior to annexation. Expansion of the SOI at this time would require CEQA review which is not part of this document. It is recommended that WCWD explore annexation of this area in order to give the residents full participation in district affairs and elections. At the time annexation is applied for, the application to LAFCO should include an SOI amendment to coincide with the annexation. This would allow for the lead agency, WCWD to prepare adequate CEQA review to support both the annexation and SOI amendment.

The analysis of SOI issues is included in *Table 8.6* below.

**Table 8.6
West County Wastewater District
SOI Issue Analysis**

Issue	Comments
SOI Update Recommendation	Leave existing SOI without amendment to cover out-of-agency service areas
Services authorized to provide	Wastewater collection, treatment and disposal
Existing and Planned Land Uses and Policies	The District has no land use authority for the area where it provides wastewater services. County and city plans include land uses and population growth that will need increased wastewater services. County and city policies support the provision of adequate wastewater service for residents and businesses.
Potential effects on agricultural and open space lands	Although there are some open space lands within the District's SOI and boundaries, wastewater services do not by themselves induce growth on 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 15% over the next 22 years to 102,022 residents. There will be an increased need for wastewater services.
Services to be Provided to any areas added to the SOI	Wastewater collection, treatment and disposal; the areas to be added are currently being served by WCWD
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 the condition of the infrastructure and is implementing projects to extend the life of existing infrastructure.
Location of Facilities, Infrastructure and Natural Features like rivers and ridgelines	The District provides services within the City of San Pablo; portions of the cities of Richmond and Pinole; the unincorporated communities of El Sobrante, Tara Hills, Rollingwood, and Bayview; and other unincorporated area within Contra Costa County. The District's offices and treatment plant are located in Richmond. The District discharges treated wastewater into the San Francisco Bay.
Effects on Other Agencies	WCWD coordinates with Richmond, Pinole, and Hercules on service issues in western Contra Costa County. WCWD also coordinates with EBMUD on secondary effluent directed to EBMUD's NRWRP. Maintaining the existing SOI would have no effect on other agencies.
Potential for Consolidations or other Reorganizations when Boundaries Divide communities	WCWD's current boundaries include portions of Richmond and Pinole. Consolidation with an adjacent wastewater service provider, including Richmond and the cities of Pinole and Hercules, would require additional study.
Social or economic communities of interest in the area	The District was formed in 1921. The District collects service charges from existing users and fees for new development; the District also receives a portion of the 1% property tax. Property owners within the area and ratepayers have an economic interest in receiving services from this investment.

Table 8.6
West County Wastewater District
SOI Issue Analysis

Issue	Comments
Willingness to serve	The District wishes to continue to provide services within its boundaries; furthermore, the District noted that it believes it could provide a more efficient level of service and cost efficiencies to the cities of Pinole and Hercules.

8.12 Determinations

8.12.1 Growth and Population

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

WCWD’s boundaries encompass a 16.9 square mile service area that includes the following: the City of San Pablo; portions of the cities of Richmond and Pinole; the unincorporated communities of El Sobrante, Tara Hills, Rollingwood, and Bayview; and other unincorporated area within Contra Costa County. The current estimated population within the District’s boundaries is 88,938 residents. This is expected to reach 102,022 by 2030 with an average annual growth rate of 0.6 percent.

Growth within WCWD’s service area will primarily occur through infill and redevelopment. The District will need to continue to implement its capital improvement program, including pipeline and treatment plant improvements, to ensure adequate service levels for existing and new customers.

8.12.2 Infrastructure Needs or Deficiencies

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

WCWD provides wastewater collection, treatment and disposal services for residential, commercial, and industrial customers. The infrastructure consists of approximately 234.7 miles of sewer gravity pipeline and 18 pump stations. The wastewater receives secondary treatment and is either directed to EBMUD’s North Richmond Water Reclamation Facility (NRWRP) or the City of Richmond’s WPCP. The wastewater receives tertiary treatment at the NRWRP and is used in the cooling towers at Chevron’s refinery or for irrigation at the Richmond Country Club. The District has had a collection system preventive maintenance program for over 40 years and is implementing a lateral testing program on sale of property to minimize infiltration and inflow, and avoid costly blockages. The District has increased service rates in order to support a pay-as-you-go approach for capital projects.

Water quality regulations will become increasingly stringent and compliance will be costly. WCWD's ability to avoid discharge by directing secondary effluent to the EBMUD NRWRP provides significant short term and long term benefits to the environment as well as to the ratepayers.

8.12.3 Financing Constraints and Opportunities

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

WCWD's primary source of revenue is sewer service charges. The District also receives some property tax revenue as well as interest income on investments. WCWD provides contract operations and maintenance services to several outside agencies, which increases revenue opportunities for the District.

The District uses a pay-as-you-go approach to fund capital projects and has no long term debt. The District has increased rates to ensure that adequate financial resources are available to provide for operational and capital needs. The District is financially stable and has reserves. WCWD may need to increase rates in order to maintain adequate revenues for the pay-as-you-go approach.

8.12.4 Cost Avoidance Opportunities

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

WCWD is implementing several programs that control costs for services, including constructing a 1.0 megawatt solar power system that will provide an estimated 30 percent of the power needed to operate the WPCP. The District is working with EBMUD to maximize use of the secondary effluent. The District revised its ordinance requiring testing of sewers and sewer laterals under certain conditions and repair or replacement of defective sewers and laterals. This avoids costly overflows and penalties, and reduces inflow and infiltration which impacts treatment capacity.

8.12.5 Opportunities for Rate Restructuring

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

WCWD uses a flat rate structure for residential properties; non-residential properties pay rates based on water use. The District uses a pay-as-you-go approach and regularly reviews service charges and connection fees to ensure adequate revenues for operations and maintenance as well as capital improvement projects.

8.12.6 Opportunities for Shared Facilities

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

WCWD shares facilities with other local sanitary sewer service providers, including shared dechlorination facilities and deep water outfall as well as by providing contract services and emergency response. WCWD provides secondary effluent to the EBMUD NRWRP for use in the Chevron Richmond Refinery. There may be opportunities for WCWD to provide cost effective treatment and disposal services for the cities of Pinole and Hercules, pending the outcome of two studies.

8.12.7 Evaluation of Management Efficiencies

Purpose: To evaluate management efficiencies of the jurisdiction.

WCWD regularly evaluates its wastewater system and financial capacity for providing service, including maintenance and capital improvements for the system.

8.12.8 Government Structure Options

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

WCWD provides wastewater collection, treatment and disposal services for the City of San Pablo; portions of the cities of Richmond and Pinole; the unincorporated communities of El Sobrante, Tara Hills, Rollingwood, and Bayview; and other unincorporated area within Contra Costa County. Five government structure options were identified:

- Maintain the status quo
- Annex areas outside District boundaries receiving service
- Annex islands within the District's SOI
- Consolidate sanitary sewer service with the Richmond Municipal Sewer District
- Consolidate sanitary sewer service with the cities of Pinole and Hercules

Maintain the status quo: WCWD is providing adequate service, maintains its infrastructure, and is financially sound. The District is rehabilitating its collection system and implementing programs and practices that improve cost efficiency, including providing secondary effluent for recycled water treatment and use. The benefits of this option are continuation of service and economies that benefit ratepayers for both wastewater and water service.

Annex areas outside District boundaries receiving service: The District is providing service to an estimated 45 properties outside its current boundaries. WCWD 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. **This option would require CEQA review.**

Annex islands within the District's SOI: There are numerous 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. 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 sanitary sewer service with the Richmond Municipal Sewer District: The Richmond Municipal Sewer District is providing similar services adjacent to WCWD. The advantages of this option may include economies of scale due to operational efficiencies. However, the agencies have already realized significant economies through the shared facilities of the West County Agency. 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.

Consolidate sanitary sewer service with the cities of Pinole and Hercules: The potential for wastewater flows from Hercules and Pinole to be directed to the WCWD WPCP was studied in 1999 and 2004; there are two parallel studies currently underway to evaluate the infrastructure needs and cost for wastewater flows to be directed to WCWD facilities as an alternative to improving the water pollution control plant in Pinole. 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. The level of benefit could vary depending on geographic area as well as the service (collection, conveyance, treatment, and disposal). Consolidation would require further study to determine whether there would be real operational efficiencies, as well as the potential benefits and costs.

8.12.9 Local Accountability and Governance

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

The West County Wastewater District is governed by a five-member Board of Directors elected at large by voters within the District. District meetings are open to the public and information on the District is available on its website. The District provides an extensive public education program that focuses on student outreach programs, participation in community events, and communication opportunities such as newsletters and a community calendar. The District should

consider making more detailed financial information available on its website, such as the complete operating and capital budget and financial statements.