

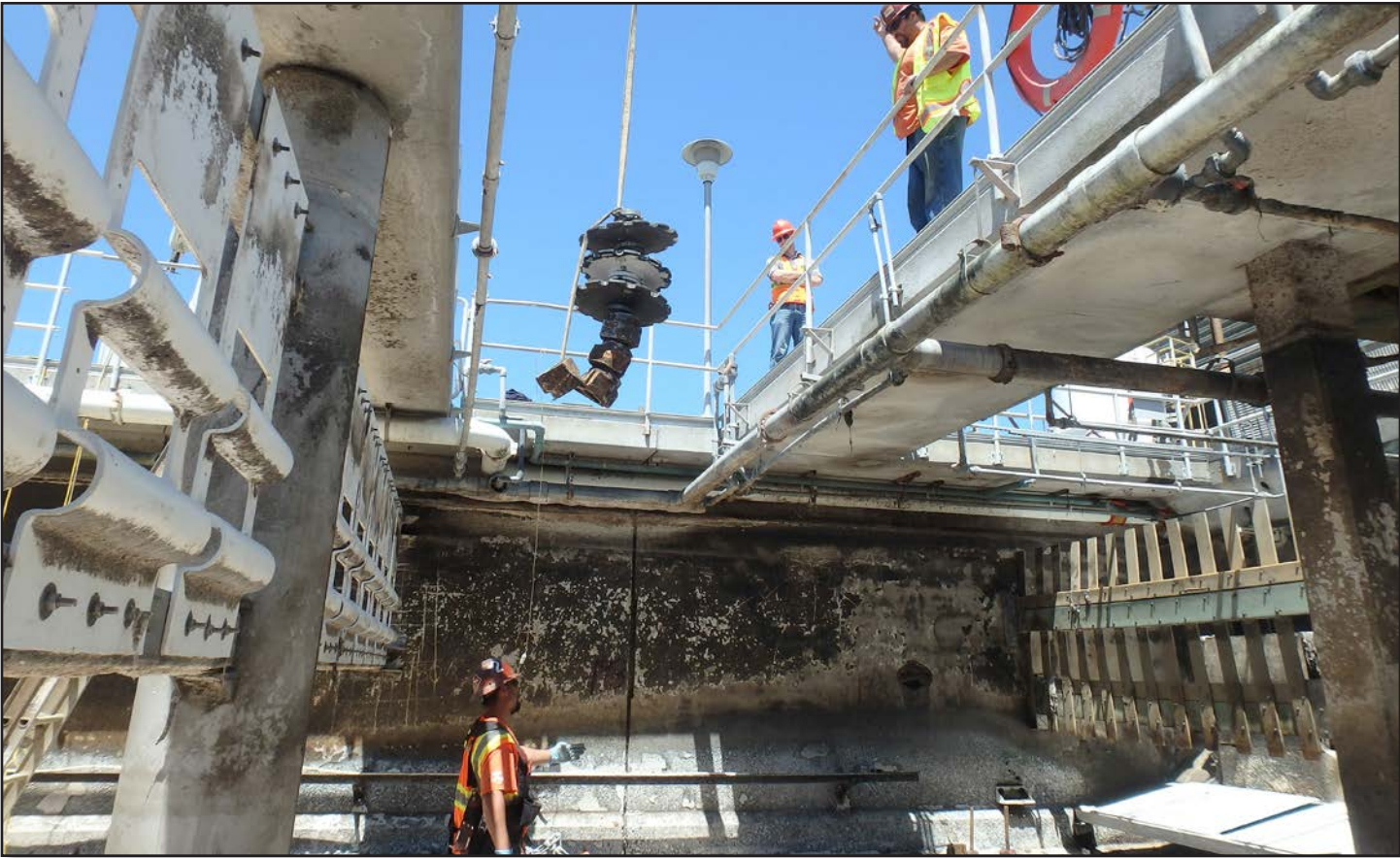
FY 2014-15

Capital Improvement **BUDGET** & TEN-YEAR PLAN

Executive Summary



Central Contra Costa Sanitary District



Previous and ongoing projects



Executive Summary

Central Contra Costa Sanitary District (the “District”) funds an extensive Capital Improvement Program designed to preserve, maintain, and enhance the District’s assets, meet regulatory requirements, accommodate the community’s needs, and protect public health and the environment. Capital improvements are construction, acquisition or renovation activities which add value to the District’s fixed assets (buildings, pipelines, facilities, equipment) or significantly increase their useful life.

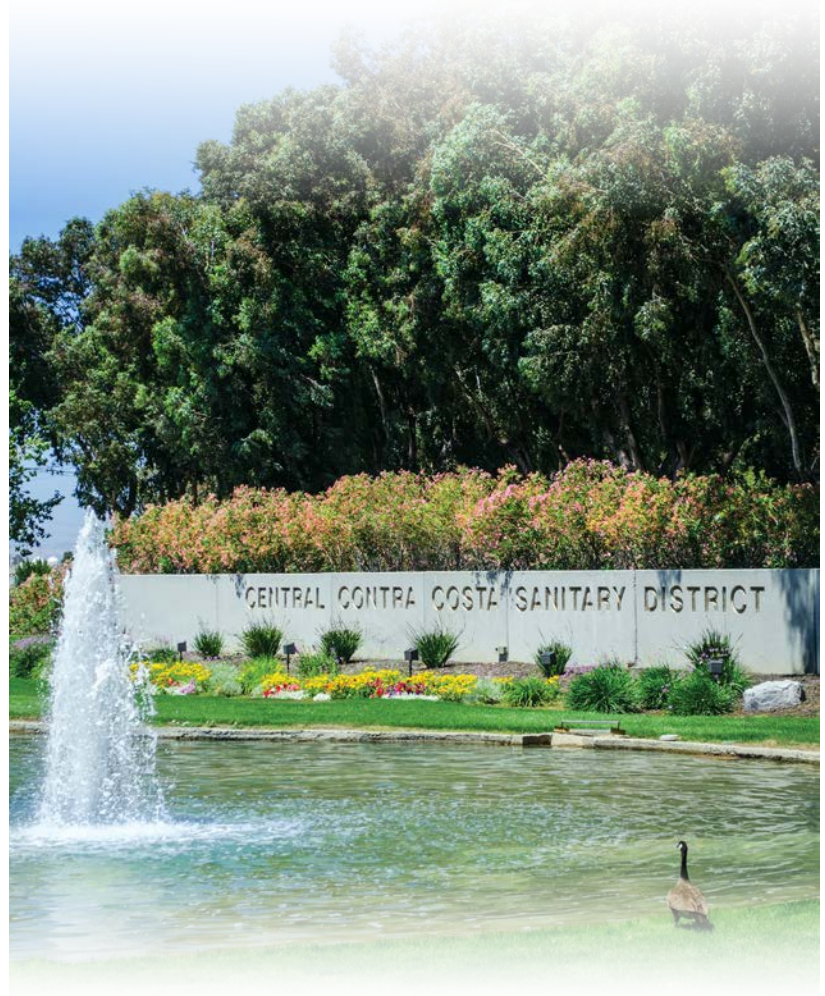
The District’s FY 2014-15 Capital Improvement Budget (CIB) details expenditures of approximately **\$25.1 million** for the planning, design and construction of treatment plant, collection system, general improvements, and recycled water projects. By adopting the CIB, the Board of Directors authorizes staff to pursue this work.

In addition to the CIB for the upcoming year, the Board approved a Ten-Year Capital Improvement Plan (CIP) that forecasts needed expenditures. The CIP focuses on facility renovation, expansion and future regulatory compliance projects. It estimates expenditures for the next ten years at \$296 million (in 2014 dollars). The CIB and CIP also include projected revenues and cash flow discussions to demonstrate how planned expenditures could be funded.

Each planned project addresses one or more District goals:

- Protect public health and the environment
- Maintain existing assets
- Respond to regulatory and community concerns
- Accommodate planned growth

This Executive Summary describes the major projects included in the FY 2014-15 CIB, the major projects included in the Ten-Year CIP, and the revenue streams that will support the planned expenditures.



Capital Improvement Budget

The FY 2014-15 CIB presents estimated expenditures of approximately \$25.1 million for planning, design and construction of capital projects in four programs:

- **Treatment Plant**
- **Collection System**
- **General Improvements**
- **Recycled Water**

Each of the programs is divided into subprograms to track different types of work.

Most of the money will be spent on renovation or preservation of capital assets, as shown in the following table:

Program/ Subprogram	Planned Expenditure for FY 2014-15
Treatment Plant Program – TPP	\$9.0 million (36%)
Regulatory Compliance/Planning	\$0.7 million
One-Time Renovation	\$7.9 million
Recurring Renovation	\$0.4 million
Expansion/Capacity Improvements/Miscellaneous	\$0
Collection System Program – CSP	\$12.2 million (49%)
Renovation	\$9.4 million
Regulatory Compliance/Planning	\$0.6 million
Expansion/Capacity Improvements	\$1.7 million
Pumping Stations/Force Mains	\$0.5 million
General Improvements Program – GIP	\$3.3 million (13%)
Vehicles and Equipment	\$0.6 million
Management Information Systems	\$1.5 million
Projects	\$0.5 million
Asset Management Plan	\$0.7 million
Recycled Water Program – RWP	\$0.6 million (2%)
TOTAL	\$25.1 million (100%)

Major Project Emphasis

Although the CIB is made up of funding estimates for many individual projects, each year there are several major projects which together account for a majority of total estimated capital expenditures. In FY 2014-15, the emphasis will be on 12 large projects, which together account for \$19 million or 76 percent of the total estimated expenditures. Estimated FY 2014-15 expenditures for each of these projects are noted below.

Primary Treatment Renovation

– TPP

FY 2014-15: \$6,000,000

Estimated total project cost: \$14,483,700



This project will renovate or replace the water and air supply pipelines at the primary sedimentation tanks. The grit handling facility will be renovated, and the scum collection system will be renovated with new scum sprays, new helical scum skimmers and drives, and stainless steel scum hoppers for Tanks 1 and 2. The scum thickening unit in the Solids Conditioning Building will also be replaced. Other primary tank improvements include installation of new baffles, replacing chain drives, sludge flight drive shafts and bearings, concrete repairs and upgrading hand railings.

Refurbishment of Primary Effluent (PE) Pump 1 and PE Pump 2 are also included in the project.

Walnut Creek Sewer Renovations – Phase 10

– CSP

FY 2014-15: \$2,700,000

Estimated total project cost: \$3,373,700

This project will replace/rehabilitate approximately 8,500 feet of six- and eight-inch sewers in the Walnut Creek area.

North Orinda Sewer Renovations – Phase 5

– CSP

FY 2014-15: \$2,675,000

Estimated total project cost: \$3,422,700

This project will replace or rehabilitate approximately 8,000 feet of six-, eight-, and twelve-inch lines in North Orinda.

Martinez Sewer Renovations – Phase 4

– CSP

FY 2014-15: \$1,700,000

Estimated total project cost: \$2,276,400

This project will replace or rehabilitate approximately 8,000 feet of six- and eight-inch sewer pipe located in Martinez.

Major Project Emphasis

Information Technology Development

– GIP

FY 2014-15: \$1,000,000

Estimated total project cost: \$5,500,000

This project provides funding for updating the District's computer and telecommunication technology needs.

Centrifuge and Cake Pump Upgrades

– TPP

FY 2014-15: \$800,000

Estimated total project cost: \$4,800,000

The project will improve solids capture and reliability of the sludge dewatering equipment using information gathered under the Solids Handling Evaluation project. Additional, related work will be included in this project.



CIPP/Lining– Phase 1

– CSP

FY 2014-15: \$800,000

Estimated total project cost: \$3,800,000

The project will renovate approximately 3,000 feet of a 42" diameter reinforced concrete pipeline located on the treatment plant site. Approximately 400 feet of 20" diameter force main may also be lined under this project.

Pleasant Hill – Grayson Creek Trunk

– CSP

FY 2014-15: \$800,000

Estimated total project cost: \$6,481,000

The recommended project involves installing approximately 12,000 feet of 15-, 18-, and 24-inch relief sewers, and diverting flow away from the capacity-deficient sewers.

Major Project Emphasis

Asset Management Program Development

– GIP

FY 2014-15: \$700,000

Estimated total project cost: \$3,540,000

The District is working to develop a comprehensive asset management program that will include treatment plant, collection system, general improvements, and recycled water assets, and which will help manage the lifecycle cost of owning, operating, and maintaining these assets while continuing to meet the District's mission with an acceptable level of risk. The first phase of this project will engage a consultant to assist with an asset management policy, gap analysis, and development of a five-year implementation plan. The implementation plan, once developed, will be included in future CIBs.

2014-15 Development Sewerage

– CSP

FY 2014-15: \$700,000

Estimated total project cost: \$3,481,000

This project provides for appropriate capitalization of District force account labor and other expenses for planning, design, and construction of developer-installed and contributed main sewer facilities.

Vehicle & Equipment Acquisition

– GIP

FY 2014-15: \$617,200

Estimated total project cost: \$617,200

This project provides funding and capitalization of the District's annual purchase of vehicles and major equipment.

DAF Tank Renovation

– TPP

FY 2014-15: \$500,000

Estimated total project cost: \$690,000

This project will improve the reliability of the sludge thickening process by performing structural and coating rehabilitation to the dissolved air flotation (DAF) tanks. The DAF tanks will also receive electrical, control and lighting upgrades to treatment plant standards.



Ten-Year Capital Improvement Plan

The District updates its Ten-Year Capital Improvement Plan each year to guide long-range policy and to:

- Identify, prioritize, and schedule capital projects for the ten-year period.
- Establish a plan for generating the financial resources needed to complete these capital projects.

The plan covers FY 2014-15 through FY 2023-24 and predicts total expenditures of approximately **\$296 million** (in 2014 dollars), or an average of **\$29.6 million per year**.

The plan is divided into the same four programs as the budget. While a large portion of the plan is devoted to ongoing renovation, several projects address capacity and regulatory requirements. The following table lists projected ten-year expenditures by program and subprogram. A brief description of the major projects/programs not described in the FY 2014-15 Capital Improvement Budget section follows the table.

Program/Subprogram	Planned 10 Year Expenditure
Treatment Plant Program	\$108.5 million (37%)
Regulatory Compliance/Planning/Safety	\$34 million
One-Time Renovation	\$50.7 million
Recurring Renovation	\$23.2 million
Expansion/Capacity Improvements/Miscellaneous	\$0.6 million
Collection System Program	\$162.4 million (55%)
Renovation	\$105 million
Regulatory Compliance/Planning/Safety	\$2.9 million
Expansion/Capacity Improvements	\$44.0 million
Pumping Stations/Force Mains	\$10.5 million
General Improvements Program	\$19.8 million (7%)
Vehicles and Equipment	\$5.1 million
Management Information Systems	\$6.0 million
Other Projects	\$5.2 million
Asset Management Plan	\$3.5 million
Recycled Water Program	\$5.3 million (2%)
Capital Improvement Plan Total	\$296 million (100%)

Major Ten-Year Projects and Programs

District Seismic Improvements: Substantial changes have been made to seismic design standards. Recent evaluation of District buildings identified a number of necessary improvements to address the new standards. These improvements will provide increased safety for personnel and protection of plant processes. (CIP total project cost estimate: approximately \$20.6 million).

Building	Construction in Year	Cost
Pump & Blower Building	2015-16	\$3,850,000
Headquarters Office Building (completed)	2012-13 to 13-14	\$6,221,000
Rental Properties (completed)	2012-13	\$605,000
Plant Operations Building	2017-18 to 19-20	\$1,537,000
Laboratory	2022-23 to 23-24	\$277,000
Warehouse	2018-19	\$955,000
Solids Conditioning Building	2023-24	\$7,200,000
Total Estimated Cost of Seismic Improvements:		\$20,645,000



The Bay Area is seismically active. District facilities have been evaluated and \$20.6 million is currently budgeted for retrofitting various buildings over the next several years.



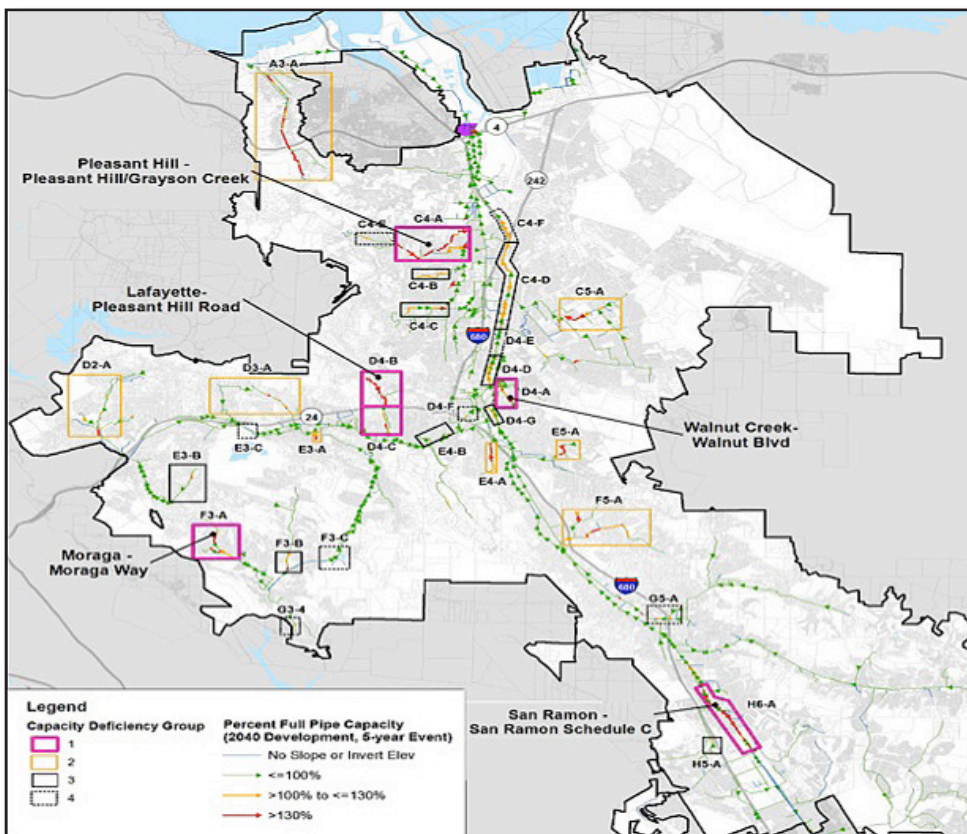
Major Ten-Year Projects and Programs

Sewer Renovation Program: In 2002, the District initiated a long-term program to televise all 1,447 miles of its gravity sewers. The first round of TV inspection work was completed in FY 2011-12. Since then approximately 47 miles of sewer (6-, 8-, and 10-inch pipe) were renovated. The CIP targets renovating 78 miles of sewer mains within the ten-year plan. (Ten-year plan total estimated project cost: **\$105 million.**)

Treatment Plant Regulatory Compliance Projects: The next ten years hold the potential for significant regulatory changes. These include possible discharge limits for nutrients (nitrogen, particularly ammonia and phosphorus) and requirements for reducing air pollutant emissions including greenhouse gases. Funding for planning and design of an ammonia removal project and contaminated soil remediation has been included at the end of the ten-year plan for contingency planning purposes. Funding for other less-defined potential projects is not included in the CIP. For example, the effects of greenhouse gas reduction requirements are still being studied and could require significant investment; and changes to air emission and solid waste regulations may affect the furnaces. The impacts of these regulatory changes range from additional emissions equipment to total replacement of the furnaces. (Ten-year estimated plan total: **\$34 million.**)

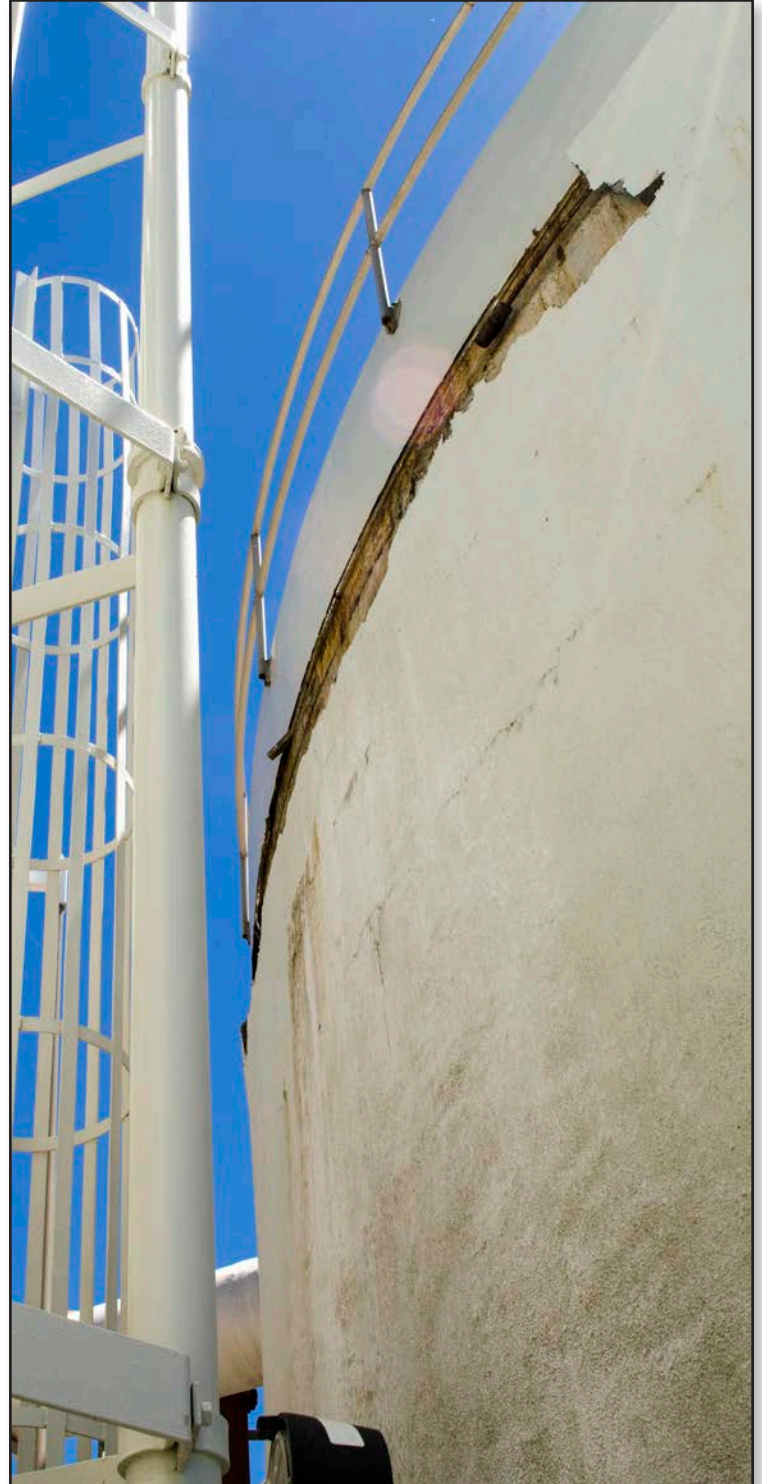
Sewer Capacity Program: The Collection System Master Plan (CSMP) was updated in 2010 to reflect recently-approved land use and new flow-monitoring data. The CIP includes projects to address the CSMP recommendations. Sewer capacity projects will include trunk sewers near Grayson Creek in Pleasant Hill, on Palmer Road, Walnut Boulevard and Lancaster Road in Walnut Creek, Happy Valley Road in Lafayette, Moraga Way in Orinda, and the San Ramon Schedule C Interceptor.

This program also includes funding for Contractual Assessment Districts and mainline extension projects (Development Sewerage.) (Ten-year plan total estimated project cost: **\$44 million.**)



Major Ten-Year Projects and Programs

Treatment Plant Recurring Renovation and Replacement Program: The replacement value of treatment plant facilities is estimated at over \$600 million. This includes electrical and mechanical equipment, piping systems, concrete structures and buildings, as well as roads, etc. All of these components are important and critical parts of the treatment plant infrastructure. These systems will continue to be evaluated and prioritized for repair or replacement. (Ten-year plan total estimated project cost: **\$23 million.**)



Potential Future Projects

Not Included in 2014 Capital Plan

The projects listed in this CIP are those that are reasonably certain to be undertaken by the District. However, when evaluating project priority and cash flow impacts, consideration must be given to potential projects that are uncertain and not currently included in the plan. If some or all of these potential projects listed below are required to be undertaken, there could be a significant impact on the financial forecasts contained in the plan.

Potential Future Projects Description	Time frame	Estimated total project cost	Estimated probability
Treatment Plant			
Greenhouse Gas Reduction – Regulations are under development that will require significant reductions in greenhouse gas emissions. The appropriate reduction plan may include diversifying our energy portfolio by adding a renewable energy source, such as solar or wind. Alternatively, the requirements may be satisfied by buying carbon dioxide allowances on the open market or shutting down the cogeneration facility.	10-20 yrs	\$15 - \$30 million	Medium
Nutrient Removal – Construct facilities for nitrogen and phosphorus removal to address more stringent receiving water standards.	10-20 yrs	\$70 million	Low
Mercury Removal From Furnace Emission - Although the Title 129 Regulations relaxed the Mercury emissions to a level that could be met with the District’s current emission control systems, the Bay Area Air Quality District has indicated that it may impose a more stringent emission requirement for mercury which may necessitate the addition of new emission control systems for the furnaces.	3-10 yrs	\$25-35 million	Medium
Recycled Water Projects			
Martinez Refinery Recycled Water Project - Construct new treatment and distribution facilities to supply up to 20 MGD to the Shell and Tesoro refineries for cooling tower makeup and boiler feed water. Money for planning activities only is budgeted.	5-10 yrs	\$100 million	Medium

Capital Revenue/Cash Flow/ Sewer Construction Fund Balance

CAPITAL REVENUE

The Capital Program is funded by a number of different fees and charges as described below.

- **Capacity Fees:** A capacity fee is paid by each new connector to the District's collection system. This fee is recalculated each year and represents the cost of buying into the existing assets of the District. The revenue from these fees is dependent on the housing market and rate of new connections.
- **Pumped Zone Fees:** For connections in an area where pumping is necessary, an additional capacity fee is charged to buy into the existing pumping station assets of the District. The revenue from the pumped zone fees is highly dependent on the housing market and the rate of new connections in the pumped zones.
- **Property Taxes:** Historically, the District has received significant revenues from property taxes. In 1978, when Proposition 13 reduced the taxation rate on property, the State Legislature urged enterprise special districts to shift to user fee financing. In FY 1992-93, the State of California began diverting portions of the property tax revenue. The District still receives a significant amount of property taxes which are allocated entirely to debt service and the Capital Program. If those taxes were to be permanently diverted, a significant increase in other forms of revenue, particularly the Sewer Service Charge, would be necessary.
- **Interest:** Interest is earned on the balance of the Sewer Construction Fund, the money held in reserve to fund future capital projects. The interest earned is returned to the fund.
- **Sewer Service Charges:** The Sewer Service Charge is an annual charge placed on the property tax rolls which funds operation and maintenance costs as well as a portion of the Capital Program. Each year the capital revenue from all other sources is estimated, and the additional revenue needed to fund the planned expenditures, after consideration of any increase or decrease to the Sewer Construction Fund Balance, is generated by adjusting the capital component of the Sewer Service Charge.
- **Reimbursements from Others:** The District receives reimbursements from others for capital expenditures which benefit others. For example, the City of Concord is served by a contract which requires them to pay a flow-proportional share of capital projects which benefit Concord (such as projects to improve wastewater treatment facilities and large interceptors.) Also, the District has formed Assessment Districts to promote the installation of sewers in unsewered areas and loaned money from the Sewer Construction Fund for construction of the sewers. This money is then repaid with interest to the Fund.
- **Bond Proceeds:** While the District generally follows a pay-as-you-go philosophy, Sewer Service Charge rate increases can be mitigated by utilizing bond funding to spread the payments over time.

Capital Revenue/Cash Flow/ Sewer Construction Fund Balance

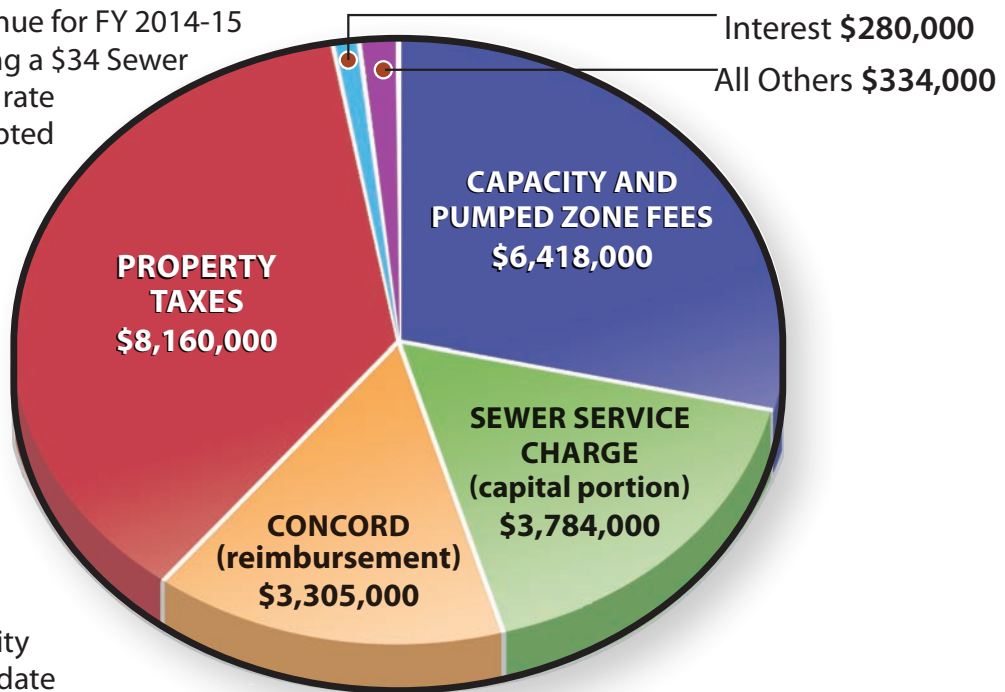
CAPITAL REVENUE

FY 2014-15 CAPITAL BUDGET REVENUE

The total budgeted revenue for FY 2014-15 is **\$22,281,000**, including a \$34 Sewer Service Charge per RUE* rate increase, which was adopted by the Board.

One of the District's goals is to maintain responsible rates while investing in the capital programs needed to protect public health and the environment, maintain existing assets, respond to regulatory and community concerns, and accommodate planned growth. The District has always prided itself on providing a high level of service at reasonable rates. When the severity of the economic downturn became apparent, the District Board of Directors, after thoughtful debate, elected not to raise rates for two years in order to provide some financial relief to customers. Staff responded to the Board's actions by implementing cost-saving measures which resulted in a savings in operating and maintenance costs of over \$2 million in 2009-10 and \$2.5 million in 2010-11. Because the economic downturn resulted in significant bid savings on capital projects, staff recommended, and the Board agreed, that the Capital Program should continue and needed projects should be built. In order to fund these projects without raising rates for two years, \$30 million in bonds were sold. This increased the District's bonded indebtedness to over \$50 million and the annual debt service obligation to \$5.6 million.

FY 2010-11 was also challenging for the District. Increased expenditures for regulatory mandates and reduced revenues due to the economic



downturn resulted in the need for a significant sewer service charge (SSC) rate increase to allow the District to continue providing the same level of service and investing in infrastructure. In response, District staff recommended and the Board of Directors adopted a SSC increase of \$30 per year for both FY 2011-12 and FY 2012-13.

Last year (2013-14), the Board approved a two-year Sewer Service Charge rate increase of \$34 per year for 2013-14 and 2014-15. A public hearing was held in April, 2014 to gather public comment on the second year of this increase, and the Board confirmed the increase, which will become effective July 1, 2014.

The following chart compares the District's rates to 26 other Bay Area sanitary agencies. After adoption of the recommended two-year increase, the District's rates will still be below the mean rate for these agencies.

* RUE= Residential Unit Equivalent

Capital Revenue/Cash Flow/ Sewer Construction Fund Balance

COMPARISON OF SEWER SERVICE CHARGES

Sewer Service Charge Rates for Bay Area Agencies Revised June 2014	
AGENCY	2014-15 Residential Sewer Service Charge ⁽¹⁾
Santa Rosa	\$1,171
Petaluma	\$1,029
Rodeo Sanitary District	\$875
Crockett Sanitary District	\$658
Benicia	\$639
Richmond	\$633
Brentwood	\$624
Ironhouse Sanitary District	\$618
Oakland (EBMUD for treatment)	\$614
2014-15 Mean Rate of other agencies	\$543
Novato	\$533
Vallejo	\$520
Mountain View Sanitary District	\$516
Berkeley (EBMUD for treatment)	\$500
Livermore	\$489
Pittsburg (DDSD)	\$472
Napa Sanitation District	\$458
Pleasanton	\$445
Stegan SD (EBMUD for treatment)	\$444
CCCSD 2014-15 Approved Rate	\$439
Bay Point (DDSD)	\$434
Concord (CCCSD for treatment)	\$402
Fairfield (FSSD)	\$393
Antioch (DDSD)	\$388
West County Wastewater District	\$381
Dublin San Ramon Services District	\$373
Union Sanitary District	\$338
Oro Loma Sanitary District	\$200

⁽¹⁾ Annual SSC per Residential Unit Equivalent, or RUE.

Some agencies also receive property tax revenue ranging from \$10 to \$219 per RUE. CCCSD receives \$79 per RUE from property taxes.

Rates in effect on July 1, 2014 if known. Previous year rates shown in some cases.

Cash Flow/Sewer Construction Fund Balance

CASH FLOW / SEWER CONSTRUCTION FUND BALANCE

As part of the Ten-Year Capital Improvement Plan, estimates of expenditures and revenues are made and a cash flow projection is developed to show the interrelationship of revenues and the Sewer Construction Fund (SCF) balance.

Each year, a policy decision is made by the Board of Directors, based on staff analysis and recommendations, on the capital component of the Sewer Service Charge needed to fund the planned Capital Program while maintaining an adequate SCF balance. The SCF balance is needed for future capital projects. It also acts as the “bank” used to meet the District’s cash flow needs. To provide sufficient funds for cash flow needs, a minimum balance of approximately \$30 million is recommended for the SCF.

This year, a drawdown of the SCF of approximately \$2.8 million is budgeted.

2014-15 Sewer Construction Fund Revenues And Expenditures

REVENUES	Includes \$34 SSC Rate Increase
Facilities Capacity Fees	\$5,890,000
Pumped Zone Fees	528,000
Interest	280,000
Ad Valorem Taxes (Capital portion)	8,160,000
Sewer Service Charges (Capital portion) *	3,784,000
Reimbursements from Others:	
City of Concord	3,305,000
Recycled Water Sales	260,000
Developer Fees, Charges, Other	74,000
TOTAL REVENUES	\$22,281,000
EXPENDITURES	
Treatment Plant Program	\$9,045,000
Collection System Program	12,217,000
General Improvements Program	3,265,000
Recycled Water Program	552,000
TOTAL EXPENDITURES	\$25,079,000
SUMMARY OF SEWER CONSTRUCTION FUNDS AVAILABLE	
PROJECTED REVENUES*	\$22,281,000
PROJECTED EXPENDITURES	\$25,079,000
DRAW FROM SEWER CONSTRUCTION FUNDS	\$2,798,000

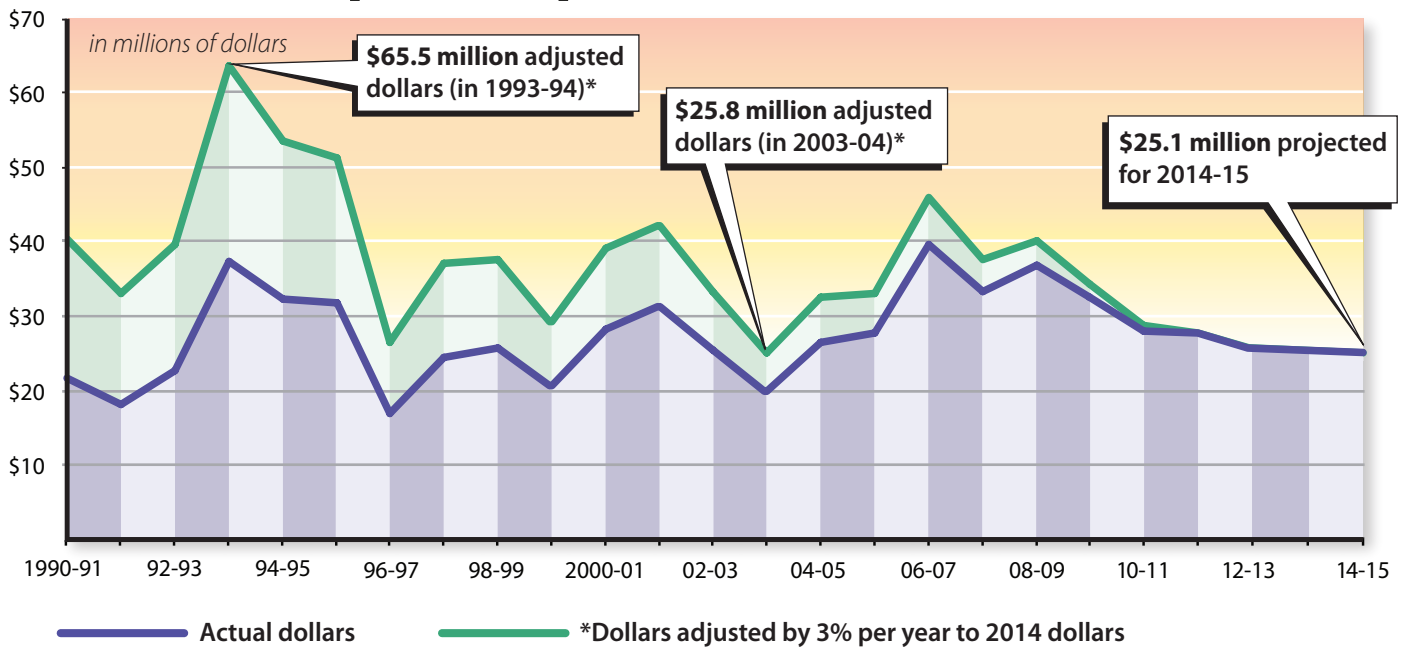
More specific information regarding expenditure categories is included in the Capital Improvement Plan.

* Revenue is first recorded in the O&M budget until O&M costs are offset. Any additional revenue will be recorded in the Sewer Construction Fund.

Historic Capital Improvement Program

To place this year's proposed CIB and CIP in perspective, it is helpful to review historical expenditures and revenues. As shown in the "Annual Capital Expenditures" figure below, annual capital expenditures in inflation-adjusted dollars have decreased over the years to approximately \$30 million per year from a high of \$60 million in 1993-94. This rate of spending represents a replacement of all assets about once every hundred years, based on an estimated replacement value of approximately \$3.6 billion for the treatment plant, collection system, and pumping station facilities.

Annual Capital Expenditures

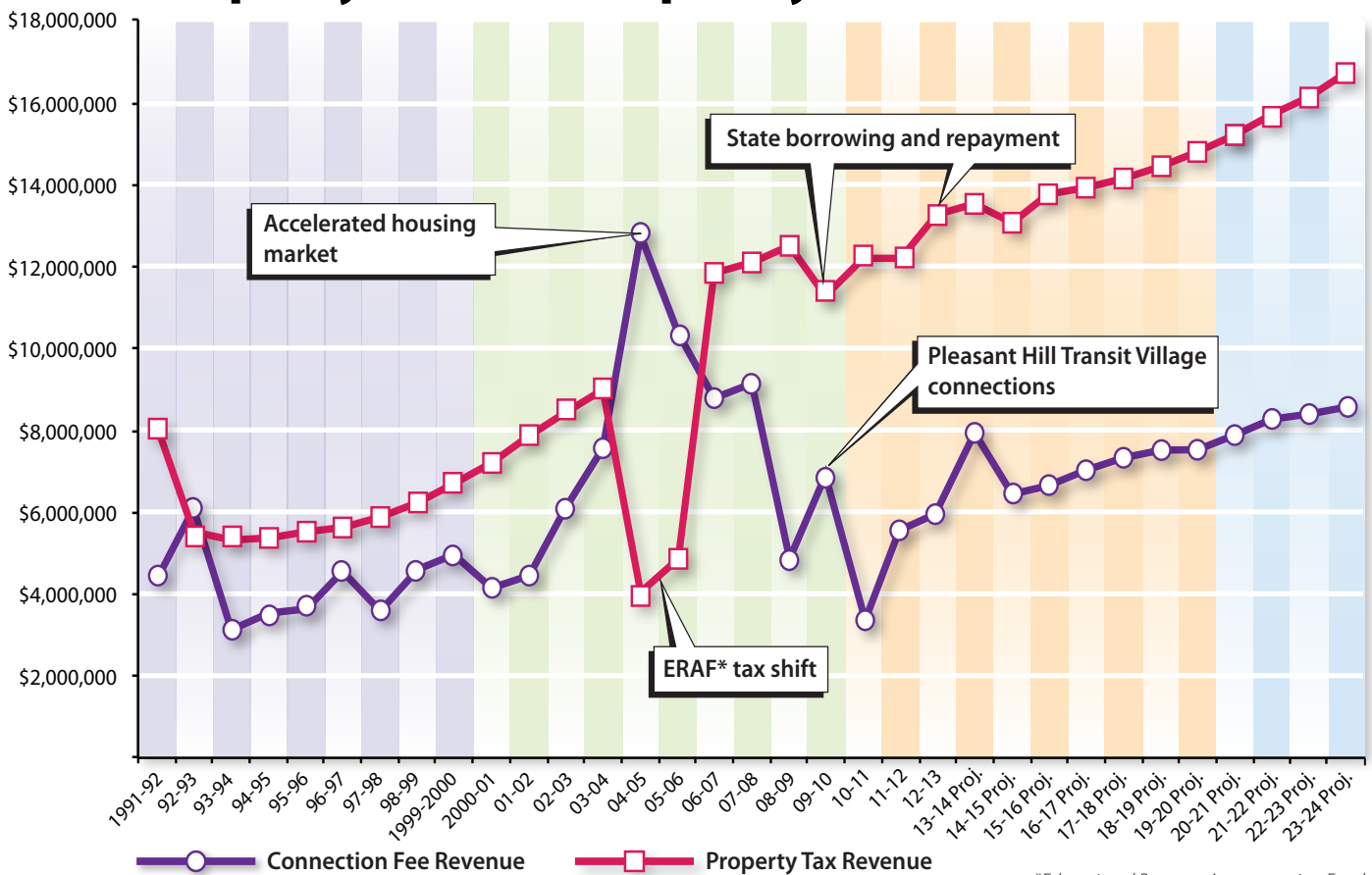


Historically, the District has attempted to match annual expenditures with revenues to avoid reducing the Sewer Construction Fund balance below \$30 - \$35 million. This allows the fund to act as the bank to meet the District's cash flow needs between its biannual receipt of Sewer Service Charge and property tax revenue collected for the District by Contra Costa County. As noted in the "Property Tax and Capacity Fee Trends" figure on the next page, capital revenues can be highly variable.

Historic Capital Improvement Program

The District has two discretionary sources of capital, the Sewer Service Charge capital component and bond sales. In 2009-10, the District chose to augment the Sewer Construction Fund with \$30 million in bond proceeds in order to ease the pressure on Sewer Service Charge rates and allow the capital program to move forward with needed projects. This decision was deemed prudent because the competitive construction bidding climate occasioned by the economic downturn resulted in construction costs being reduced by 20-30%, providing significant savings for the program. The District will continue to balance capital expenditures and revenues to ensure that appropriate investments are made in capital facilities while maintaining an adequate Sewer Construction Fund balance to meet cash flow needs.

Property Tax and Capacity Fee Revenue Trends



*Educational Revenue Augmentation Funds

Board of Directors

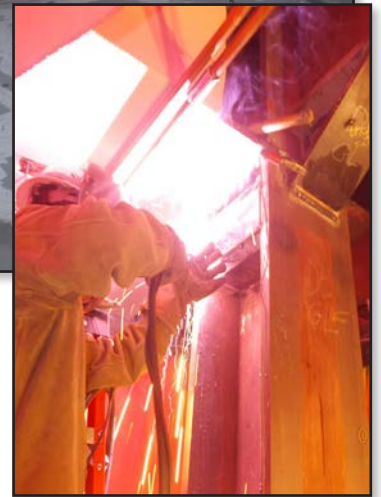
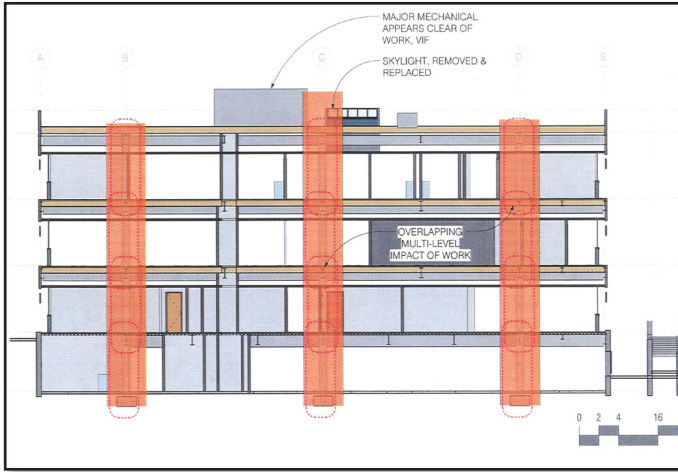
The District's regular board meetings are scheduled and conducted on the first and third Thursday of each month. Special and continued meetings are held as needed. Meetings begin at 2 pm in the Board Room at Central Contra Costa Sanitary District, 5019 Imhoff Place, Martinez, CA.

BOARD OF DIRECTORS

- **David R. Williams**, President
- **Michael R. McGill**, President Pro Tem
- **Paul H. Causey**, Director
- **James A. Nejedly**, Director
- **Tad J. Pilecki**, Director

Roger S. Bailey, General Manager





Headquarters Office Building Seismic Retrofit Project

Substantial changes have been made to seismic design standards over the years, and several of our facilities require necessary improvements to address the new standards and to provide increased safety for our personnel. Our headquarters office building (HOB) was among the first

facilities to undergo seismic renovations. The HOB Seismic Retrofit Project reinforced the nine steel columns that run vertically from the basement to the roof, and the floor beams that tie in with the columns. The HOB staff was temporarily relocated during the construction. The project was completed last year at a cost of \$6.2 million.

Questions?

For additional information about the District's Capital Improvement Budget and Ten-Year Plan, please contact Director of Engineering Jean-Marc Petit at (925) 229-7112 or Engineering Assistant Earlene Millier at (925) 229-7359.