



Central Contra Costa Sanitary District
FY 2016-17
BUDGET





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General Manager Budget Message



Board of Directors:



I am pleased to present the Central Contra Costa Sanitary District's FY 2016-17 combined budget. We have incorporated the Operations and Maintenance, Capital Improvement, Self-Insurance, and Debt Service Budgets into one document to provide a more user-friendly and transparent format for our customers.

During the current fiscal year, we made a conscious effort to afford the Board more time, including more budget-related meetings and special workshops, to deliberate over critical policy issues. Accordingly, the Board has adopted a formal Reserve Policy, a decision that is consistent with best practices adopted by most of the leading municipalities and public utilities across the country. In addition, the Board has agreed to earmark an additional \$2.5 million to mitigate the Unfunded Actuarial Accrued Liability (UAAL) and the liability associated with Other Post-Employment Benefits (OPEB). These decisions will further strengthen the District's financial resilience and will be even more advantageous as it embarks on a future faced with large infrastructure replacement and the potential for further exposure to the bond market.

This Budget reflects the Board's policies and provides the resources necessary to accomplish the District's mission to protect public health and the environment, and to achieve the following goals of our Strategic Plan:

1. Provide exceptional customer service
2. Strive to meet regulatory requirements
3. Be a fiscally sound and effective water sector utility
4. Develop and retain a highly trained and innovative workforce
5. Maintain a reliable infrastructure
6. Embrace technology, innovation, and environmental sustainability

General Manager Budget Message

The past fiscal year has been a very successful one for the District. During this time, we have maintained our excellent record in meeting the needs of the communities we serve. A few of our major accomplishments include:

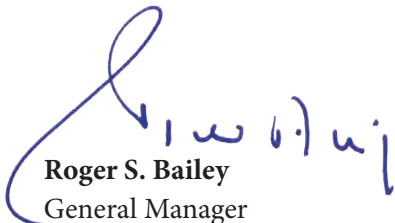
- Development of a two-year Strategic Plan that establishes policy direction and identifies goals for achieving increased effectiveness and efficiencies throughout the organization for FY 2016-18.
- Implementation and successful completion of Central San Academy, a program which focuses on educating our customers on the mission of the District and how it is executed.
- Implementation of an Asset Management Program that will help us to achieve the most cost-efficient methods of operating, maintaining, and replacing assets.
- 17 consecutive years of 100% compliance with our National Pollutant Discharge Elimination System permit.
- Implementation of a comprehensive Strategic Communications Plan that increases outreach to our customers by adding social media and video public service announcements.
- Completion of a wide-ranging survey of our customers that will help us to improve our levels of service, communication, and customer satisfaction.
- Completion of a Supervisory Academy for employees.
- Implementation of a new Mentorship Program for employees.
- Expansion of our recycled water, residential fill station, and commercial truck fill station.
- Increased collection at the Household Hazardous Waste Facility (HHW) and pharmaceutical drop-off sites.
- Earning the Achievement of Excellence in Procurement Award for the fifth consecutive year.
- Initiating a multiyear business continuity planning process.
- Installation of solar panel projects at three facilities.

The FY 2016-17 budget will enable us to build upon those and other successes in the most optimal manner. While our staff works tirelessly to improve our business practices, we will continue our commitment to provide the highest quality wastewater services for our customers.

I want to thank the Board for providing the vision and resources necessary to achieve the District's goals and respond to future challenges.

Finally, I want to thank the District staff for working so diligently to develop this Budget, which will ensure that we are well positioned financially to accomplish our goals.

We recognize that the communities within our District rely on us for a basic but very critical service, and accordingly, the proposed Budget represents our commitment to excellence. By planning for the future, making good financial decisions, implementing new technologies and processes, and maintaining a highly skilled and dedicated workforce, the District will remain a world-class organization that provides our customers with exceptional service and value, now and well into the future.



Roger S. Bailey
General Manager

District Overview

Introduction



The Central Contra Costa Sanitary District (District) was established in 1946 and is located about 30 miles east of San Francisco. The District provides wastewater services for approximately 476,400 residents and more than 3,000 businesses within a 145-square mile area of central Contra Costa County. This area includes Danville, Lafayette, Martinez, Moraga, Orinda, Pacheco, Pleasant Hill, San Ramon, Walnut Creek, and unincorporated areas within central Contra Costa County. The District also treats wastewater for residents of Concord and Clayton under a 1974 contract with the City of Concord.

CCCSD serves 476,400 customers within its 145-square-mile service area.

- Sewage collection and wastewater treatment (and HHW service) for 339,000 people
- Wastewater treatment for 137,400 residents in Concord and Clayton by contract and HHW service
- HHW disposal only
- District Headquarters, treatment plant, HHW Collection Facility and Residential Recycled Water Fill Station located in Martinez

The District operates and maintains more than 1,500 miles of sewer pipelines, 19 pumping stations, and a wastewater treatment plant that cleans and disinfects an average of 32 million gallons of wastewater per day. Most of this treated effluent is discharged into Suisun Bay. Approximately 2 million gallons per day receives further treatment to produce recycled water that is ideal for non-potable purposes such as landscape irrigation and industrial processes.

The District's Residential Recycled Water Fill Station provides free recycled water to residential customers for watering lawns, gardens, and landscaping. Nearly 12 million gallons were distributed through the Fill Station in 2015.

In addition to its wastewater and recycled water responsibilities, the District operates and maintains a Household Hazardous Waste Collection Facility that collects, recycles, or safely disposes of more than 2 million pounds of hazardous waste from approximately 30,000 residential and small business customers each year; and a Pharmaceutical Collection Program with 13 locations that collect and safely dispose of more than 12,000 pounds of unwanted drugs each year.

VISION, MISSION & VALUES

Our Vision

To be a high-performance organization that provides exceptional customer service and regulatory compliance at responsible rates.

Our Mission

To protect public health and the environment.

Our Values

People

- Value customers and employees
- Respect each other
- Work as a team
- Celebrate our successes and learn from our challenges

Community

- Value water sector partners
- Foster excellent community relationships
- Be open, transparent and accessible
- Build partnerships
- Understand service level expectations

Principles

- Be truthful and honest
- Be fair, kind and friendly
- Take ownership and responsibility

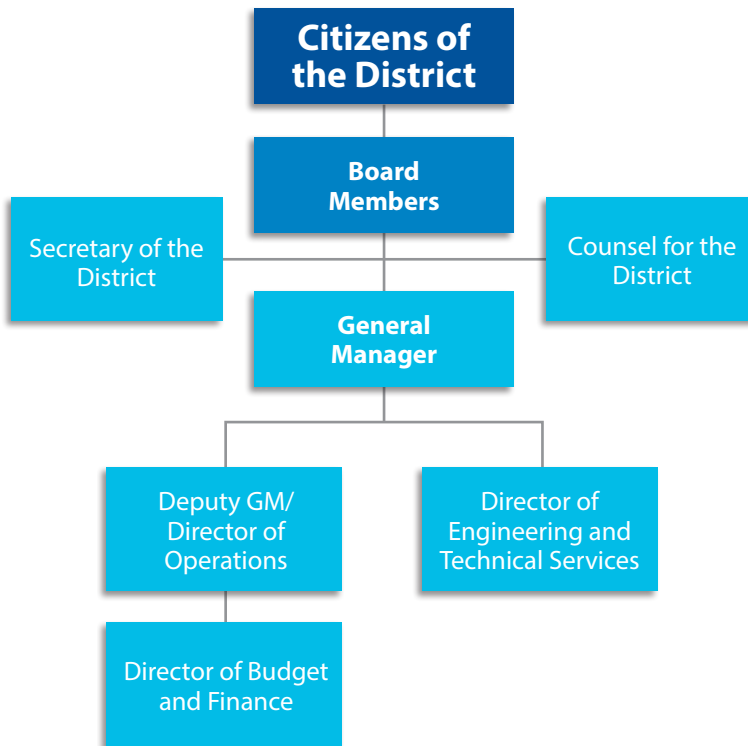
Leadership and Commitment

- Work effectively and efficiently
- Promote a passionate and empowered workforce
- Encourage continuous growth and development
- Inspire dedication and top-quality results



Organizational Structure

Organizational Structure



The District is governed by a Board of Directors whose five members are elected on a non-partisan basis and serve a four-year term. The Board appoints the General Manager, the Secretary of the District, and the Counsel for the District.

The District is organized into three departments: Administration, Engineering and Technical Services, and Operations. Its current 290 budgeted, full-time employees are led by a General Manager, a Deputy General Manager, two Department Directors, and 12 Division Managers.

The District's main headquarters, Board room, and treatment plant are located at 5019 Imhoff Place in Martinez. The District's collection system operations are headquartered at 1250 Springbrook Road in Walnut Creek.

Strategic Plan Summary

For FY 2016-18, the District implemented a two-year Strategic Plan that establishes policy direction that will enable the District to increase efficiencies and continue in its role as stewards of the environment. The Strategic Plan outlines the District's core commitments, focused initiatives, and key performance measurements.

The strategic goals reflect the challenges that many water sector agencies face as we strive to increase quality and minimize the cost of services to our customers. **These challenges include:**

- Enhanced customer expectations and public awareness
- Aging infrastructure
- Stringent regulatory requirements
- Financial constraints
- Expanded challenges associated with employee recruitment and retention
- Security and emergency response concerns
- Sustainable regional water supply concerns
- Increased focus on resource recovery

The strategic goals and initiatives were developed using the Effective Utility Management (EUM) framework as an overarching tool. The EUM was originally developed by the Environmental Protection Agency and water industry leaders in 2007. The framework is made up of 10 attributes that provide a succinct indication of where effectively managed utilities should focus and what they should strive to achieve.

Effective Utility Management Attributes

Product Quality

Produces “fit for purpose” water that meets or exceeds full compliance with regulatory and reliability requirements and is consistent with customer, public health, ecological, and economic needs.

Customer Satisfaction

Provides reliable, responsive, and affordable services in line with explicit, customer-derived service levels.

Employee and Leadership Development

Recruits and retains a workforce that is competent, motivated, adaptive, and safety focused.

Operational Optimization

Ensures ongoing, timely, cost-effective, reliable, and sustainable performance improvements in all facets of its operations in service to public health and environmental protection.

Financial Viability

Understands the full life-cycle cost of utility operations and the value of water resources.

Infrastructure Strategy and Performance

Understands the condition of and costs associated with critical infrastructure assets.

Enterprise Resiliency

Ensures utility leadership and staff work together internally, and with external partners, to anticipate, respond to, and avoid problems.

Water Resource Sustainability

Ensures the availability and sustainable management of water for its community and watershed, including water resource recovery.

Community Sustainability

Takes an active leadership role in promoting and organizing community sustainability improvements through collaboration with local partners.

Stakeholder Understanding and Support

Engenders understanding and support from stakeholders (anyone who can affect or be affected by the utility), including customers, oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programs, and risk management decisions.

Connecting Effective Utility Management with District Strategic Plan & Initiatives

A brief summary of the Strategic Plan’s goals and strategies follows. For a complete copy of the Strategic Plan, including initiatives and key performance indicators, please visit centralsan.org

FY 2016-18 Strategic Plan and Initiatives

Alignment with Effective Utility Management Attributes and District Values

Goal 1 – Provide Exceptional Customer Service			
Strategy	Initiative	EUM Attribute	Value
Foster Customer Engagement and Awareness	Provide high quality customer service.	Customer Satisfaction	Community
	Invest in business process changes and technologies to effectively increase access to District information and promote customer care, convenience and self-service.	Customer Satisfaction Operational Optimization	Leadership and Commitment
	Increase customer understanding and support for key issues facing the District.	Stakeholder Understanding and Support	Community
	Build and maintain relationships with Federal, State and Local Elected Officials and key stakeholder groups.	Stakeholder Understanding and Support	Community
Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction	People
	Increase internal partnerships.	Employee and Leadership Development	People, Community

Goal 2 – Strive to Meet Regulatory Requirements			
Strategy	Initiative	EUM Attribute	Value
Strive to Achieve 100% Permit Compliance in Air, Water, Land and Other Regulations	Renew treatment plant NPDES permit.	Product Quality	Principles
	Meet existing regulations and plan for future regulations.	Product Quality	Principles
	Foster relationships with regulatory agencies.	Stakeholder Understanding and Support	Community
	Monitor and track proposed and pending legislation/regulatory changes that may impact District operations.	Stakeholder Understanding and Support	Community
	Actively manage green house gas emissions in the most cost-effective and responsible manner.	Community Sustainability	Principles
Strive to Minimize the Number of Sanitary Sewer Overflows	Complete the collection system scheduled maintenance on time and optimize cleaning schedules to improve efficiencies.	Infrastructure Strategy and Performance	Leadership and Commitment
	Continue the pipeline condition assessment and cleaning quality assurance program using the system-wide CCTV program.	Infrastructure Strategy and Performance	Leadership and Commitment

Goal 3 – Be A Fiscally Sound and Effective Water Sector Utility			
Strategy	Initiative	EUM Attribute	Value
Conduct Long-Range Financial Planning	Ensure rate structure is consistent with cost of service principles.	Financial Viability	Community Principles
	Improve the application and processing of capacity fees for consistency across user classes.	Financial Viability	Community Principles
	Develop a long-range debt management policy.	Financial Viability	Principles
	Develop alternatives for new revenues and funding sources (i.e., Interagency agreements, services, recycled water).	Financial Viability	Leadership and Commitment
Manage Costs	Perform targeted audits of critical/high-risk functions or processes.	Enterprise Resiliency	Principles
	Perform optimization studies of treatment plant and field operations to reduce costs.	Operational Optimization	Leadership and Commitment
	Evaluate and implement risk management practices to minimize loss.	Enterprise Resiliency	Principles

Goal 4 – Develop and Retain A Highly Trained and Innovative Workforce			
Strategy	Initiative	EUM Attribute	Value
Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels	Assess, develop, and implement District-wide training needs.	Employee and Leadership Development	People, Leadership and Commitment
	Develop and train our future leaders.	Employee and Leadership Development	People, Leadership and Commitment
Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development	People, Leadership and Commitment
	Sustain and grow collaborative relationships with the labor bargaining units.	Stakeholder Understanding and Support	People, Community
Meet or Exceed Industry Safety Standards	Achieve consistent improvement on State of California and Bay Area Industry Injury Rate.	Employee and Leadership Development	People, Principles, Leadership and Commitment
	Enhance the safety culture through improved training and communications.	Employee and Leadership Development	People, Principles



Goal 5 – Maintain A Reliable Infrastructure			
Strategy	Initiative	EUM Attribute	Value
Manage Assets Optimally Throughout Their Lifecycle	Implement Board-approved recommendations from the Comprehensive Wastewater Master Plan and Condition Assessment.	Infrastructure Strategy and Performance	Principles, Community
	Update the Consequence of Failure Matrices.	Enterprise Resiliency	Principles, Leadership and Commitment
	Implement the reliability centered maintenance (RCM) program.	Infrastructure Strategy and Performance	Leadership and Commitment
	Manage and maintain current equipment and vehicle fleet to provide maximum value.	Infrastructure Strategy and Performance	Leadership and Commitment
Facilitate Long-term Capital Renewal and Replacement	Integrate the data from the Asset Management Program into the analysis of long-term capital improvement needs.	Infrastructure Strategy and Performance	Leadership And Commitment
	Implement business case evaluations, including life-cycle cost, into proposals for new CIP projects to determine most cost-effective projects and solutions.	Infrastructure Strategy and Performance	Leadership And Commitment
Protect District Personnel and Assets from Threats and Emergencies	Enhance our capability to mitigate, prepare, respond, and recover from emergencies.	Enterprise Resiliency	Principles
	Evaluate and implement appropriate improvements to our Security Program to meet new or evolving threats.	Enterprise Resiliency	Principles

Goal 6 – Embrace Technology, Innovation and Environmental Sustainability			
Strategy	Initiative	EUM Attribute	Value
Augment the Region's Water Supply	Explore partnering opportunities (e.g., CCWD and EBMUD).	Water Resource Sustainability	Community
	Develop a Satellite Water Recycled Facilities (SWRF) Program.	Water Resource Sustainability	Community, Leadership and Commitment
Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization	Leadership and Commitment
Reduce Reliance on Non-Renewable Energy	Explore opportunities for self-generation, conservation and efficiency based on the Board-approved Comprehensive Wastewater Master Plan.	Community Sustainability	Leadership and Commitment
Encourage the Review and Testing of Promising and Leading Technology	Expand and improve the use of cost effective mobile computing and communication technologies.	Operational Optimization	Leadership and Commitment
	Continue developing and investing in cost-effective innovation, technology and applied research and development.	Operational Optimization	Leadership and Commitment



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Financial Planning Process

The District by law uses an enterprise fund to account for its operations. The District currently has one enterprise fund which is comprised of four internal sub-funds:

- **Operations and Maintenance (Running Expense Fund)** – This fund provides for the general operations, maintenance and administration of the District. Sewer Service Charge revenues are collected by the Contra Costa County Tax Assessor’s Office and remitted to the District in two installments in April and December of each year. The District provides several services, including wastewater treatment, to the City of Concord and is reimbursed annually for these services. In order for the District to pay its ongoing expenses throughout the year, it reserves five months (41.7%) of gross operating expenditures at the start of each fiscal year.
- **Sewer Construction Fund** – This fund provides for treatment plant and collection system asset renewal and replacement expenditures, as well as office facilities renewal, vehicle and equipment replacement, information systems replacement and miscellaneous capital expansion needs. The City of Concord reimburses the District a proportional share of the expenses related to projects impacting the services the City has contracted with the District to provide. Property Tax and Sewer Service Charge revenues, which comprise a significant portion of annual capital project revenues, are also collected by the Contra Costa County Tax Assessor’s Office and remitted to the District in two installments in April and December of each year. In order to meet the cash flow needs of the capital projects program, the District reserves 50% of the annual capital projects budget at the start of each fiscal year.
- **Self-Insurance Fund** – This fund accounts for interest earnings on cash balances in this fund and cash allocations from other funds, as well as for costs of insurance premiums and claims not covered by the District’s insurance coverage. The District has self-insured a portion of its liability and property risks since July 1, 1986, when the Board approved the establishment of the Self-Insurance Fund (SIF). The District is self-insured for three events up to \$500,000 per occurrence for its general and automobile liability program, for a total of \$1,500,000. Maintaining a self-insured retention reduces the District’s insurance premium expense. In order to help mitigate the financial impacts and maintain uninterrupted service in the event of an emergency or catastrophic event, the District maintains an Emergency Fund Reserve balance of \$5 million in the SIF. Actuarial studies are performed every other year and are used to set the GASB 10 liability amount.
- **Debt Service Fund** – This fund accounts for activity associated with the payment of the District’s long-term bonds and loans. This is due primarily to a relatively low annual debt service. The District’s total combined budget for FY 2016-17 is \$131 million. A portion of the District’s Ad Valorem tax revenue is the primary funding source for the Debt Service Fund.

The revenue sources to support this budget include:

- Residential Sewer Service Charges
- Commercial Sewer Service Charges
- Sewer Connection Fees (Capacity Fee and Pumped Zone Fee)
- City of Concord (contract to treat wastewater)
- Ad Valorem Property Taxes
- Other Reimbursements (i.e., proceeds from the sale of recycled water and permit fees)

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Financial Planning Policies

The significant policies that play a role in managing the District's finances are summarized below.

Reserve Policy

There is a strong emphasis placed on maintaining adequate reserves and having a reserve policy ensures long-term financial stability. The Board has established a policy, Board Policy 017, setting targets for each of the District's reserve funds. Fiscal reserves provide working capital for operations and maintenance activities; funding for long-term capital improvement requirements; fulfillment of legal, regulatory and contractual obligations; mitigation of risk and liability exposures; and cash flow emergencies.

For the Operations and Maintenance Fund – Working Capital Reserves, the Board has set a target of five months (41.7%) of gross operating expenses at the start of each fiscal year, to be fully funded by FY 2019-20.

For the Sewer Construction Fund (Capital Improvement) – Working Capital Reserves, the Board has set a target of 50% of the annual capital projects budget at the start of each fiscal year, to be fully funded by FY 2019-20.

For the Self-Insurance Fund Reserves, the Board has set a target of three times the annual retention, currently at \$500,000. In addition, to help mitigate the financial impacts and maintain uninterrupted service in the event of an emergency or catastrophic event, the District maintains an Emergency Fund Reserve balance of \$5 million in the self-insurance fund.

Debt Policy

One of the Board's FY 2016-17 strategic goals is to formalize a debt policy for the District. The District has utilized a pay-as-you-go philosophy and uses debt financing for large capital improvements brought about by regulatory changes or other unforeseen factors. Currently, the District is repaying a State of California Water Reclamation Loan and 2009 Revenue Bonds. As of June 30, 2015, total outstanding debt was \$36.5 million.

Debt Restrictions currently include:

- Revenue Pledge and Covenant – The District pledges Property Tax Revenue along with its ability to raise Sewer Service Charge (SSC) rates.
- Debt Service Coverage Ratios (DSCR) are adhered to - The District's DSCR are much higher than required.

The DSCR must be above 1.0. This ratio measures the availability of current financial resources to pay for debt service. This is calculated by dividing Net Revenue by Total Debt Service. The 1.0 shows that after paying all operating expenses, an issuer only has exactly enough funds to pay its debt service obligations. The District's ratio typically ranges from 4.0 to 6.3.

A second DSCR, which uses Adjusted Net Revenue (total revenue less connection fees and capital charges from the City of Concord) divided by Total Debt Service, must be 1.25. The District's DSCR typically ranges from 3.0 to 4.6. The DSCR is one of the primary metrics used by credit rating agencies and investors to assess the credit worthiness of an issuer. In summary, a higher DSCR means less borrowing, better credit ratings, and minimize cost of debt. Conversely, a lower DSCR means more borrowing, lower credit ratings, and more expensive debt.

Because of the District's prudent debt-funding policies and resulting higher than required DSCRs, the District is a highly rated issuer. The District's Standard and Poor's rating is AAA.

Highly rated issuers generally have DSCRs that exceed the covenanted levels. As part of the District’s strategic goals, the Board adopted a DSCR policy target of 2.0 or above. A higher DSCR target provides for a more appropriate preservation of long-term financial integrity.

Investment Policy

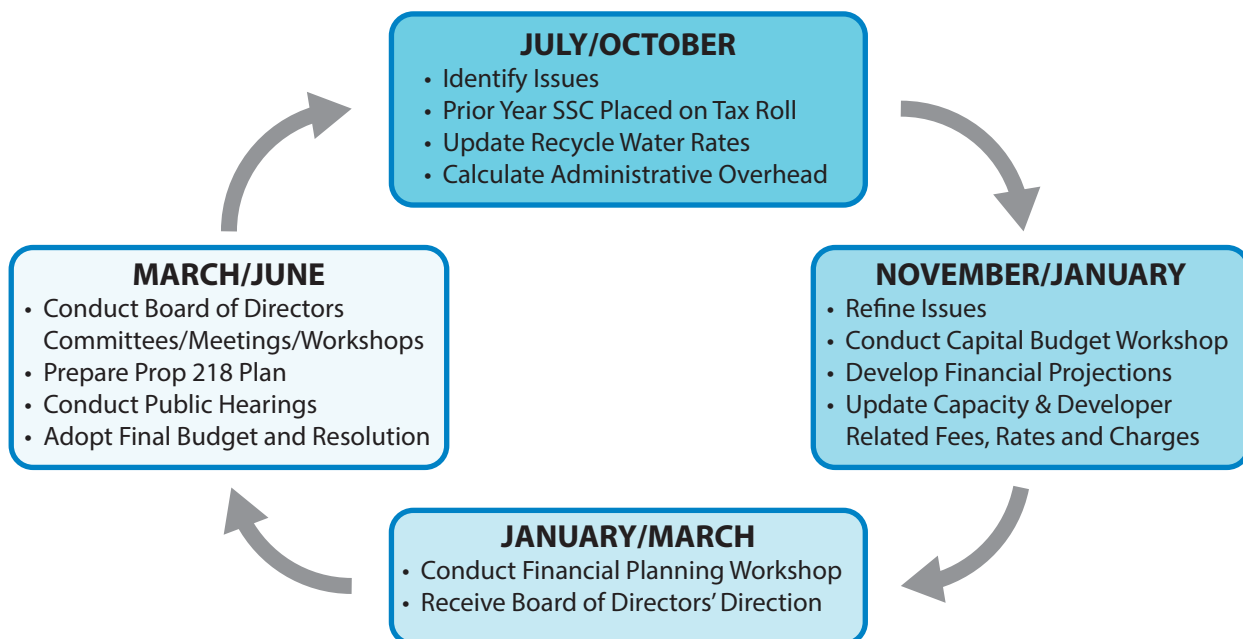
The District’s investment policy is based on state law and prudent money management. All investments are in accordance with the District’s investment policy and Sections 53646 and 53601 of the California Government Code. The District has formal agreements with Contra Costa County allowing them to act as the District’s banker, and they invest all District funds. Securities are held in a custodial account separate from the County. The investment policy applies to all District funds and investment activities except for the Governmental Accounting Standards Board (GASB) GASB 45 Trust Investments.

Although not required by law, the investment policy is presented to the Board of Directors annually. The District’s priorities are in this order: safety, liquidity and yield. The policy addresses issues such as permitted investments, bank and dealers, maturities, diversification, risk, delegation of authority, prudence, controls, reporting and performance evaluation.

GASB 45 Trust Investment Guidelines are also presented to the Board of Directors annually. The GASB 45 Trust Investments are longer term investments made to attain moderate earnings. HighMark Capital Management is used as an investment advisor, and the Trust is held with Public Agency Retirement Services.

The District is also looking into establishing a pension trust similar to the GASB 45 Trust. Funding a pension trust, rather than a direct payment to the Retirement Association, gives the District greater retirement payment flexibility in the future while still reducing its GASB 68 pension liability on the current financial statements.

Budget Calendar



Financial Summary

Overview

The FY 2016-17 Budget incorporates the District's Strategic Goals and Initiatives and provides the resources necessary to advance the Strategic Plan and meet the challenges the District faces as it strives to increase service quality and minimize cost to its customers. At the same time, the Budget allows the District to accomplish its mission in the most cost-effective and financially sustainable manner to ensure best value to our customers.

The District's FY 2016-17 total budget is \$131 million, an increase of \$7.4 million or 5.9% over last year's budget of \$124 million. As shown in Table 1, the main driver for the increase in the total Budget is an increase in Sewer Construction from \$30.8 million in FY 2015-16 to \$36.8 million in FY 2016-17 for a 19.6% increase. The Operations and Maintenance Budget is \$89.8 million or \$2.3 million greater than the current FY 2015-16 Budget of \$87.5 million. Salaries and wages are the primary cause of this variance, driven by a 4% salary adjustment consistent with bargaining unit Memoranda of Understanding. The Self-Insurance Fund is set at \$948,000 to cover the costs of premiums and estimated losses based on historical trends.

Table 1 – FY 2016-17 Total Budget

Fund	Expenditures		Budget to Budget Variance	Percent Variance
	FY 2015-16 Budget	FY 2016-17 Budget		
Operations and Maintenance	\$87,464,864	\$89,810,918	\$2,346,054	2.7%
Sewer Construction	\$30,790,000	\$36,808,756	\$6,018,756	19.6%
Debt Service	\$3,822,330	\$3,790,807	(\$31,523)	-0.8%
Self-Insurance	\$1,917,000	\$948,000	(\$969,000)	-50.6%
Total Budget	\$123,994,194	\$131,358,481	\$7,364,287	5.9%

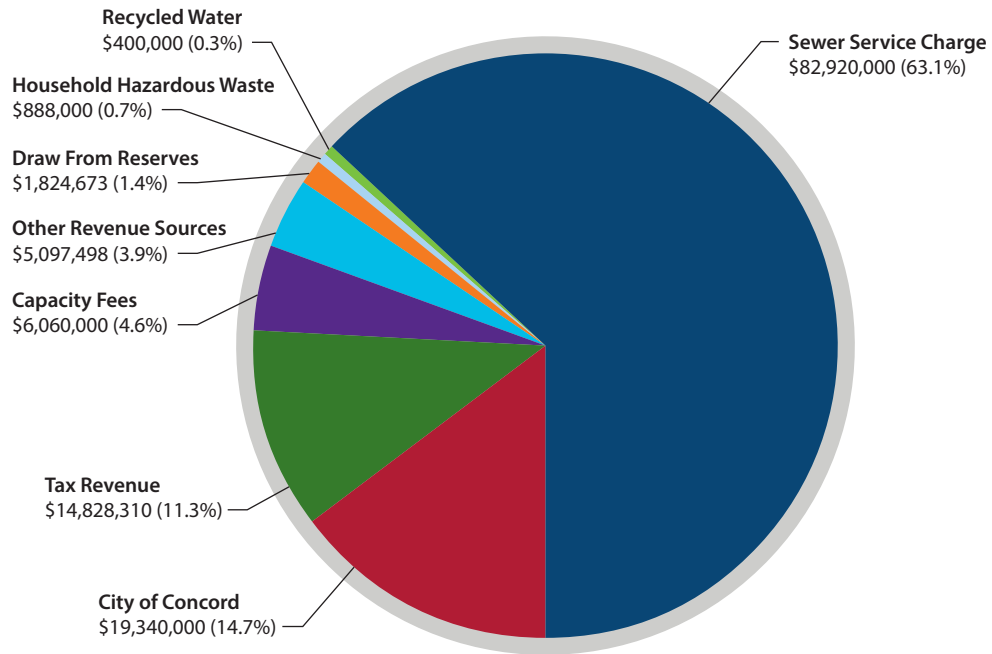
Source of Funds

The sources of funds (revenues) for FY 2016-17 are shown in Figure 1. The sewer service charge is the largest source of revenue at \$83 million, followed by revenue from the City of Concord and tax revenue.

Use of Funds

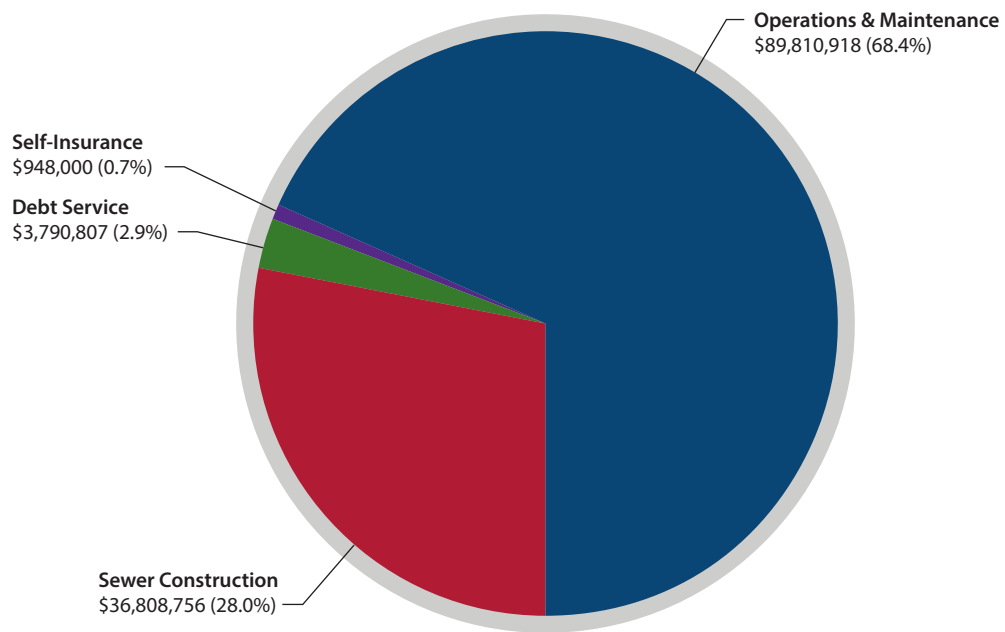
The uses of funds (expenditures) for FY 2016-17 are shown in Figure 2. Two expenditure categories, Operations and Maintenance and Sewer Construction, account for over 96% of the total budget.

Figure 1 – Where the Money Comes From



FY 2016-17 Total Funding Sources - \$131,358,481

Figure 2 – Where the Money Goes



FY 2016-17 Total Funding Uses - \$131,358,481



Sewer Service Charge (SSC)

Table 2 shows the Board-approved SSC for FY 2016-17 compared to the FY 2015-16 rates. The rates are based on a Cost of Service Study and were approved by the Board of Directors in June 2015. Approximately 85.8% of the SSC revenue is allocated to the Operations and Maintenance Budget and the remaining 14.2% is allocated to the Capital Improvement Budget.

Table 2 – Approved Annual Sewer Service Charge

	FY 2015-16	FY 2016-17
Single Family Residences	\$471	\$503
Multi-Family Residences	\$463	\$487
Effective Date	7/1/2015	7/1/2016

Operations and Maintenance Budget

The total Operations and Maintenance revenue for FY 2016-17 is projected to be \$89.8 million. Compared to the FY 2015-16 budget amount of \$87.5 million, revenue has increased by 2.7%.

This is due to the following:

- While the SSC rates are increasing, the Operations and Maintenance allocation of SSC is decreasing from 89.7% to 85.8%. The net result of these changes is a minimal increase in the total Operations and Maintenance SSC revenue of \$700,000, or 1.0%.
- The City of Concord primarily shares a flow portion of Treatment Plant, Environmental and Regulatory Compliance, and Environmental Compliance expenses and is charged administrative overhead and a finance charge. City of Concord revenue is expected to be \$1.1 million or 8.0% more than FY 2015-16 due to residential fill station expense and the overall Operations and Maintenance expense increase for FY 2016-17.

The total Operations and Maintenance expenses are projected to be \$89.8 million in FY 2016-17 compared to \$87.5 million in FY 2015-16. This reflects an increase of \$2.3 million or 2.7%. Through a series of meetings with management staff, the District has achieved a budget that addresses its critical needs and provides funding for key activities.

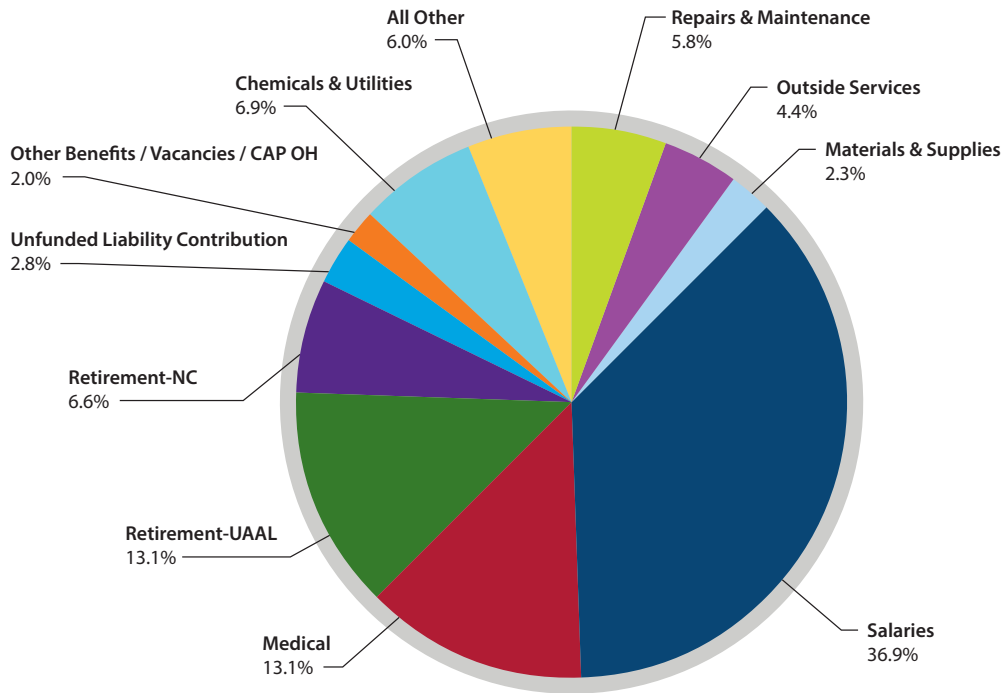
Table 3 and Figure 3 show the FY 2016-17 Operations and Maintenance Budget by expense category.

Table 3 – FY 2016-17 Budgeted Operations and Maintenance Revenues and Expenditures

	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Budget Variance	Percent Variance
Revenue:					
Sewer Service Charge	\$70,390,000	\$71,753,500	\$71,100,000	\$710,000	1.0%
Concord SSC	\$13,700,000	\$14,260,000	\$14,790,000	\$1,090,000	8.0%
Permit & Inspection Fees	\$1,047,000	\$1,576,300	\$1,430,000	\$383,000	36.6%
Lease Rental Income	\$619,300	\$613,500	\$616,200	(\$3,100)	-0.5%
HHW Reimbursement	\$879,000	\$878,000	\$888,000	\$9,000	1.0%
Stormwater / Pollution Prevention	\$268,000	\$300,000	\$310,000	\$42,000	15.7%
Interest Income	\$103,000	\$164,000	\$233,000	\$130,000	126.2%
Recycled Water	\$75,000	\$92,000	\$100,000	\$25,000	33.3%
Other	\$411,000	\$423,000	\$350,000	(\$61,000)	-14.8%
Total Revenue	\$87,492,300	\$90,060,300	\$89,817,200	\$2,324,900	2.7%
Expenditures:					
Salaries & Wages	\$30,943,085	\$30,749,781	\$33,158,707	\$2,215,622	7.2%
Benefits & Cap O/H Credit	\$13,565,121	\$15,009,882	\$14,163,311	\$598,190	4.4%
Salary & Benefits (Active Employees)	\$44,508,206	\$45,759,663	\$47,322,018	\$2,813,812	6.3%
Benefits (Retirees)	\$5,258,400	\$4,914,249	\$5,362,300	\$103,900	2.0%
Retirement UAAL	\$11,900,700	\$11,900,700	\$11,741,700	(\$159,000)	-1.3%
Additional UAAL	\$2,500,000	\$2,500,000	\$2,500,000	\$0	0.0%
Total UAAL	\$14,400,700	\$14,400,700	\$14,241,700	(\$159,000)	-1.1%
Chemicals	\$1,655,000	\$1,552,000	\$1,920,000	\$265,000	16.0%
Utilities	\$4,780,250	\$4,252,350	\$4,315,790	(\$464,460)	-9.7%
Repair & Maintenance	\$5,369,900	\$4,897,432	\$5,222,852	(\$147,048)	-2.7%
Hauling & Disposal	\$998,550	\$904,250	\$941,050	(\$57,500)	-5.8%
Professional & Legal Fees	\$640,300	\$552,250	\$630,750	(\$9,550)	-1.5%
Outside Services	\$3,883,115	\$3,755,009	\$3,980,175	\$97,060	2.5%
Self Insurance Expense	\$1,500,000	\$1,500,000	\$920,000	(\$580,000)	-38.7%
Materials & Supplies	\$2,210,045	\$2,307,111	\$2,100,025	(\$110,020)	-5.0%
Other Expenses	\$2,260,398	\$2,116,134	\$2,854,258	\$593,860	26.3%
**Total O&M	\$23,297,558	\$21,836,536	\$22,884,900	(\$412,658)	-1.8%
Total Expenditures	\$87,464,864	\$86,911,148	\$89,810,918	\$2,346,054	2.7%

** Includes cost for the production and distribution of recycled water.

Figure 3 – FY 2016-17 Operations and Maintenance Budget by Expense Category



FY 2016-17 Budgeted Operations and Maintenance Expenses (in thousands)		
Salaries	\$33,159	36.9%
Medical	\$11,762	13.1%
Retirement-UAAL	\$11,741	13.1%
Retirement-NC	\$5,926	6.6%
Unfunded Liability Contribution	\$2,500	2.8%
Other Benefits / Vacancies / Cap OH	\$1,838	2.0%
Chemicals & Utilities	\$6,236	6.9%
All Other	\$5,346	6.0%
Repairs & Maintenance	\$5,223	5.8%
Outside Services	\$3,980	4.4%
Materials & Supplies	\$2,100	2.3%
Total	\$89,811	100.0%

Salaries and Benefits

Total salaries and benefits for active employees are projected to be \$56.6 million in FY 2016-17, including both the Operations and Maintenance Fund and the Sewer Construction Fund. Compared to FY 2015-16, this is a \$2.5 million or 4.6% increase, as shown in Table 4. Table 5 shows the allocation of District salaries and benefits to the Operations and Maintenance Fund and the Sewer Construction Fund. Benefits for retirees are projected to be \$5.4 million in FY 2016-17, an increase of \$104,000 or 2% compared to FY 2015-16.

Table 4 – Salaries and Benefits

	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Budget Variance	Percent Variance
O&M Salaries	\$30,943,085	\$30,749,781	\$33,158,707	\$2,215,622	7.2%
O&M Salaries	\$30,943,085	\$30,749,781	\$33,158,707	\$2,215,622	7.2%
Benefits - Active Employees					
O&M Workers' Compensation	\$523,316	\$593,963	\$402,948	(\$120,368)	-23.0%
O&M Medical & Health	\$6,193,537	\$5,819,846	\$6,845,900	\$652,363	10.5%
O&M Dental	\$562,872	\$55,783	\$529,909	(\$32,963)	-5.9%
O&M Retirement - Normal Cost	\$5,861,541	\$5,172,627	\$5,925,249	\$63,708	1.1%
O&M Deferred Comp/Medicare	\$2,194,087	\$2,085,549	\$2,264,571	\$70,484	3.2%
O&M Other Benefits	\$195,175	\$183,983	\$209,627	\$14,452	7.4%
OPEB Contribution (future contribution only; does not include retiree healthcare premiums)	\$2,631,600	\$2,975,751	\$2,528,700	(\$102,900)	-3.9%
O&M Accrued Compensated Absence	\$360,000	\$350,000	\$360,000	\$0	0.0%
O&M Benefit Vacancy Factor	(\$1,145,000)		(\$1,159,000)	(\$14,000)	1.2%
O&M Benefits (Active Employees)	\$17,377,128	\$17,237,502	\$17,907,904	\$530,776	3.1%
O&M Capitalized Administrative Overhead Credit	(\$3,812,007)	(\$2,729,640)	(\$3,744,593)	\$67,414	-1.8%
O&M Benefits and Cap O/H Credit (Active)	\$13,565,121	\$14,507,862	\$14,163,311	\$598,190	4.4%
Capital Salary and Benefits**	\$9,612,541	\$7,369,072	\$9,311,425	(\$301,116)	-3.1%
O&M and Capital Salaries and Benefits (Active)	\$54,120,747	\$52,626,715	\$56,633,443	\$2,512,696	4.6%
Benefits - Retiree					
Retiree Medical	\$4,791,700	\$4,480,240	\$4,916,000	\$124,300	2.6%
Retiree Dental	\$381,400	\$377,967	\$350,200	(\$31,200)	-8.2%
Retiree Life	\$85,300	\$56,042	\$96,100	\$10,800	12.7%
Retiree Benefits	\$5,258,400	\$4,914,249	\$5,362,300	\$103,900	2.0%
UAAL					
Retirement UAAL	\$11,900,700	\$11,900,700	\$11,741,700	(\$159,000)	-1.3%
Additional UAAL	\$2,500,000	\$2,500,000	\$2,500,000	\$0	0.0%
Total UAAL	\$14,400,700	\$14,400,700	\$14,241,700	(\$159,000)	-1.1%
Total O&M and Capital Salaries and Benefits (Active and Retiree)	\$73,779,847	\$71,941,664	\$76,237,443	\$2,457,596	3.3%

** Comprised of capitalized salaries, benefits and administrative overhead charged to District Capital projects

Table 5 – Salaries and Benefits by Operations and Maintenance Budget and Sewer Construction Budget

	Operations & Maintenance			Sewer Construction			Total District		
	FY 2015-16 Budget	FY 2016-17 Budget	Variance	FY 2015-16 Budget	FY 2016-17 Budget	Variance	FY 2015-16 Budget	FY 2016-17 Budget	Variance
Salaries	\$30,215,569	\$32,217,344	\$2,001,775	\$3,110,682	\$2,955,114	(\$155,568)	\$33,326,251	\$35,172,458	\$1,846,207
Salary Vacancy	(\$594,000)	(\$440,000)	\$154,000	(\$57,000)	(\$36,000)	\$21,000	(\$651,000)	(\$476,000)	\$175,000
Overtime	\$1,094,493	\$1,059,363	(\$35,130)	\$122,991	\$125,273	\$2,282	\$1,217,484	\$1,184,636	(\$32,848)
Standby	\$227,023	\$322,000	\$94,977	\$0	\$0	\$0	\$227,023	\$322,000	\$94,977
Total Salaries	\$30,943,085	\$33,158,707	\$2,215,622	\$3,176,673	\$3,044,387	(\$132,286)	\$34,119,758	\$36,203,094	\$2,083,336
Current Employee Benefits	\$18,522,128	\$19,066,904	\$544,776	\$2,623,861	\$2,522,445	(\$101,416)	\$21,145,989	\$21,589,349	\$443,360
Benefit Vacancy	(\$1,145,000)	(\$1,159,000)	(\$14,000)	\$0	\$0	\$0	(\$1,145,000)	(\$1,159,000)	(\$14,000)
Total Benefits (Active Employees)	\$17,377,128	\$17,907,904	\$530,776	\$2,623,861	\$2,522,445	(\$101,416)	\$20,000,989	\$20,430,349	\$429,360
Total Salaries and Benefits (Active)	\$48,320,213	\$51,066,611	\$2,746,398	\$5,800,534	\$5,566,832	(\$233,702)	\$54,120,747	\$56,633,443	\$2,512,696
Retiree Benefits	\$5,258,400	\$5,362,300	\$103,900	\$0	\$0	\$0	\$5,258,400	\$5,362,300	\$103,900
UAAL	\$14,400,700	\$14,241,700	(\$159,000)	\$0	\$0	\$0	\$14,400,700	\$14,241,700	(\$159,000)
Total Benefits for Past Service	\$19,659,100	\$19,604,000	(\$55,100)	\$0	\$0	\$0	\$19,659,100	\$19,604,000	(\$55,100)
Capitalized Admin. O/H	(\$3,812,007)	(\$3,744,593)	\$67,414	\$3,812,007	\$3,744,593	(\$67,414)	\$0	\$0	\$0
Total Salaries and Benefits (Active and Retiree)	\$64,167,306	\$66,926,018	\$2,758,712	\$9,612,541	\$9,311,425	(\$301,116)	\$73,779,847	\$76,237,443	\$2,457,596

Budgeted Full Time Equivalents

Table 6 shows budgeted full time equivalents.

Table 6 – Budgeted Full Time Equivalents

	FY 2015-16	FY 2016-17
Regular Employees	287	290
Limited Duration Employees		
Summer Students	29	30
Co-ops	9	11

Variations in the Operations and Maintenance Budget

Operations and Maintenance Salaries

District salaries are \$33.2 million in FY 2016-17 compared to a budget of \$30.9 million in FY 2015-16. This is an increase of \$2.2 million or 7.16%. The primary driver of this increase is a 4.0% salary adjustment consistent with the bargaining unit Memoranda of Understanding. Additional costs are due to filling vacant positions, merit increases for newer employees, standby pay for the Electrical and Instrumentation Shops, and the addition of three new key positions: Maintenance Planner, Training Coordinator, and Program Manager. These three positions were identified in the Staffing Needs Assessment and were included in the Cost of Service Rate Study.

District Benefits

District benefits for the Operations and Maintenance budget are \$37.5 million in FY 2016-17 compared to a budget of \$37 million in FY 2015-16. This is an increase of 1.3%. The primary benefit rate assumptions include:

- Kaiser – Increase of 6.9% for active employees and a weighted 2.1% increase for retirees.
- Health NET – Increase of 7.6% for active employees and a weighted 6.4% increase for retirees.
- CCCERA – Retirement rate decreasing 8% overall, offset by higher pensionable wages. An additional \$2.5 million paid towards the unfunded liability in retirement and/or other post-employment benefits (OPEB) trust.
- Delta Dental – Decrease of 8.2%.
- Long-Term Disability – No rate increase.
- Employee Assistance Program – Decrease of 2%.
- Workers' Compensation – Estimated 10% rate increase.
- Life Insurance – Estimated 3% rate increase.

All Other Operations and Maintenance Expenses

The remaining Operations and Maintenance non-labor and benefit expenses total \$22.9 million in FY 2016-17 compared to a budget of \$23.3 million in FY 2015-16. This is a decrease of \$412,658 or 1.8%. Additional information is included in the individual Division budgets. The areas of most significant changes include:

- Chemicals and Utilities – While there is an increase in chemical expenses due to the need to meet new Section 129 Clean Air Act regulations, this increase is offset by lower natural gas and electricity costs.
- Repair and Maintenance – This expense decreased due to the elimination of the one-time cost for the cogeneration rebuild in FY 2015-16.
- Self-Insurance Expense – This expense was reduced to meet the requirements for the payment of premiums and estimated losses based on historical trends.
- Other Expenses – This expense increased due to the additional outreach for the Comprehensive Master Plan, the Central San Academy and other signature events, mailing of Proposition 218 notices, and the Fall 2016 Board Election.
- Conferences – This expense is included in the other expenses category. This expense was reduced from \$213,000 in FY 2015-16 to \$116,000 in FY 2016-17 due to a significant reduction in travel and the number of conferences, as shown in Table 7.



Table 7 – Conferences

	FY 2015-16 Budget	FY 2016-17 Budget	Budget to Budget Variance	Percent Variance
Board Conferences	\$50,000	\$50,000	-	
District-wide Conferences	\$162,800	\$66,350	(\$96,450)	-59.20%
Total	\$212,800	\$116,350	(\$96,450)	-45.30%

Operating Departments

Table 8 provides a summary of the budgets for the operating departments. Further details on the operating departments are included in the Operating Departments Section.

Table 8 – Operations and Maintenance Budget by Department

Department Totals					
Divisions	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Budget Variance	Percent Variance
Administration Department					
Communication Services and Intergovernmental Relations	\$1,916,999	\$1,926,469	\$2,124,485	\$207,486	10.8%
Finance	\$2,553,572	\$2,390,101	\$2,507,401	(\$46,171)	-1.8%
Human Resources	\$9,488,625	\$9,452,664	\$12,104,264	\$2,615,639	27.6%
Information Technology	\$3,578,603	\$3,201,420	\$3,700,951	\$122,348	3.4%
Purchasing and Materials Services	\$1,838,832	\$1,741,926	\$1,763,107	(\$75,725)	-4.1%
Risk Management	\$2,735,942	\$2,721,082	\$2,008,786	(\$727,156)	-26.6%
Office of the General Manager/ Office of the Secretary of the District	\$3,185,187	\$3,639,852	\$3,619,999	\$434,812	13.7%
	\$25,297,760	\$25,073,514	\$27,828,993	\$2,531,233	10.0%
Engineering and Technical Services Department					
Capital Projects Division	\$1,121,576	\$1,941,650	\$1,199,904	\$78,328	7.0%
Environmental and Regulatory Compliance Division	\$9,053,167	\$8,796,765	\$8,243,342	(\$809,825)	-9.0%
Planning and Development Services Division	\$6,494,079	\$6,076,875	\$6,455,894	(\$38,185)	-0.6%
	\$16,668,822	\$16,815,290	\$15,899,140	(\$769,682)	-4.6%
Operations Department					
Collection System Operations Division	\$14,996,254	\$14,383,123	\$14,472,053	(\$524,201)	-3.5%
Plant Maintenance Division	\$14,364,061	\$14,426,653	\$14,035,700	(\$328,361)	-2.3%
Plant Operations Division	\$15,357,256	\$14,599,653	\$14,859,845	(\$497,411)	-3.2%
District Safety	\$780,711	\$802,815	\$913,468	\$132,757	17.0%
Recycled Water Program	\$0	\$810,100	\$1,801,719	\$1,801,719	-
	\$45,498,282	\$45,022,344	\$46,082,785	\$584,503	1.3%
Total All Departments	\$87,464,864	\$86,911,148	\$89,810,918	\$2,346,054	2.7%

Capital Improvement Budget (CIB)

Sewer Construction Fund revenues increased \$6.1 million from \$28.8 million in FY 2015-16 to \$34.9 million in FY 2016-17. This increase was due primarily to an increase in sewer service charges of \$3.7 million as a result of customer rate increases. Capital expenditures for FY 2016-17 are \$36.8 million, a \$6 million increase over the FY 2015-16 budget of \$30.8 million. The District will spend down approximately \$1.9 million of reserves to balance the capital budget in FY 2016-17.

Table 9 is a summary of the projected FY 2016-17 CIB revenues and expenditures. Further details are included in the Capital Improvement Program Section.

Table 9 – Sewer Construction Fund Revenues and Expenditures

	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Budget Variance	Percent Variance
Revenue					
Capacity Fees	\$6,184,000	\$5,500,000	\$6,060,000	(\$124,000)	-2.0%
Pumped Zone Fees	\$450,000	\$450,000	\$400,000	(\$50,000)	-11.1%
Interest Income	\$187,000	\$189,000	\$225,000	\$38,000	20.3%
Ad Valorem Taxes	\$10,060,000	\$10,800,000	\$11,080,000	\$1,020,000	10.1%
Sewer Service Charge	\$8,110,000	\$8,275,400	\$11,820,000	\$3,710,000	45.7%
Reimbursements					
City of Concord	\$3,150,000	\$3,260,000	\$4,550,000	\$1,400,000	44.4%
Recycled Water Sales	\$257,000	\$310,000	\$300,000	\$43,000	16.7%
Developer Fees & Charges	\$369,500	\$461,083	\$470,400	\$100,900	27.3%
Total Revenue	\$28,767,500	\$29,245,483	\$34,905,400	\$6,137,900	21.3%
Expenditures					
Treatment Plant Program	\$10,410,000	\$8,718,000	\$13,125,000	\$2,715,000	26.1%
Collection System Program	\$15,950,000	\$15,220,000	\$17,925,105	\$1,975,105	12.4%
General Improvements Program	\$3,980,000	\$3,880,000	\$3,808,651	(\$171,349)	-4.3%
Recycled Water Program	\$450,000	\$720,000	\$500,000	\$50,000	11.1%
Contingency			\$1,450,000	\$1,450,000	
Total Expenditures	\$30,790,000	\$28,538,000	\$36,808,756	\$6,018,756	19.5%
Sewer Construction Funds Available					
		Projected Revenue	\$34,905,400		
		Projected Expenditures	\$36,808,756		
		Drawn from Funds Available	\$(1,903,356)		



Reserve Projections

The Board has established Board Policy 017, setting targets for each of the District's reserve funds. Fiscal reserves provide working capital for operations and maintenance activities, funding for long-term capital improvement requirements, fulfillment of legal; regulatory and contractual obligations; mitigation of risk and liability exposures; and cash flow emergencies.

For the Operations and Maintenance Fund – Working Capital Reserves, the Board has set a target of five months (41.7%) of gross operating expenses at the start of each fiscal year.

For the Sewer Construction Fund (Capital Improvement) – Working Capital Reserves, the Board has set a target of 50% of the annual capital projects budget at the start of each fiscal year, to be fully funded by FY 2019-20.

For the Self-Insurance Fund Reserves, the Board has set a target of three times the annual deductible, which in this case is \$1.5 million. In addition, to help mitigate financial impacts and maintain uninterrupted service in the event of an emergency or catastrophic event, the District maintains an Emergency Fund Reserve balance of \$5 million in the self-insurance fund.

Table 10 presents a summary of the District's current reserve balance projections compared to the Board Policy targets.

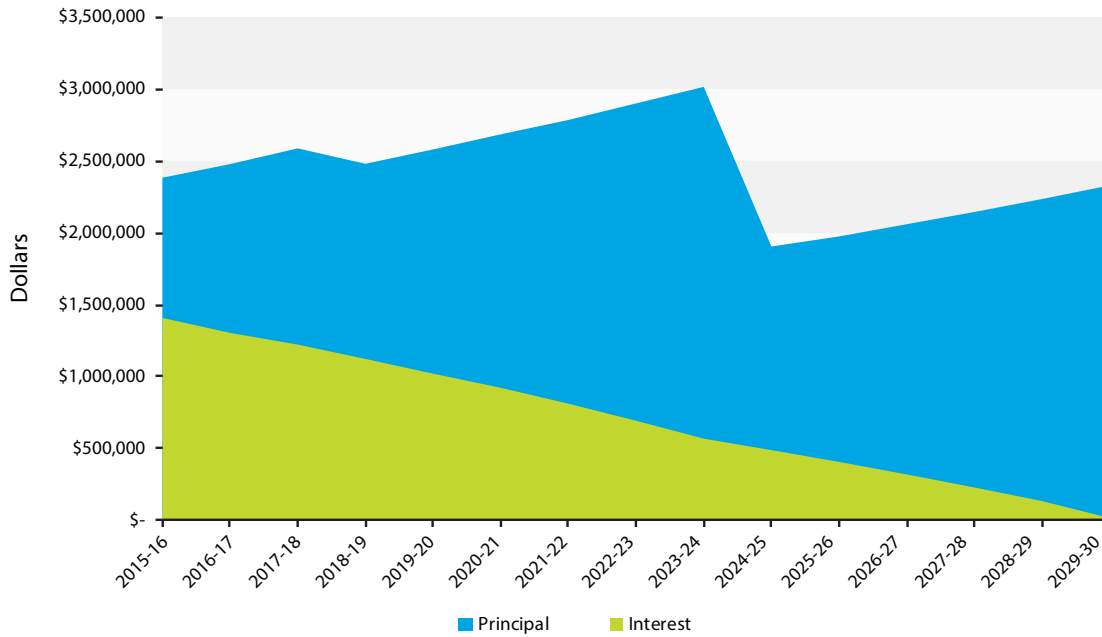
Table 10 – Reserve Projections

	O&M Fund	Sewer Construction Fund (Capital)	Self Insurance Fund	Totals
Projected Balance as of June 30, 2016	\$39,668,857	\$18,376,517	\$6,500,000	\$64,545,374
Projected Balance as of June 30, 2017	\$39,675,139	\$16,473,161	\$6,500,000	\$62,648,300
Reserve Policy Target	\$37,421,216	\$18,404,378	\$6,500,000	\$62,325,594

Debt Service

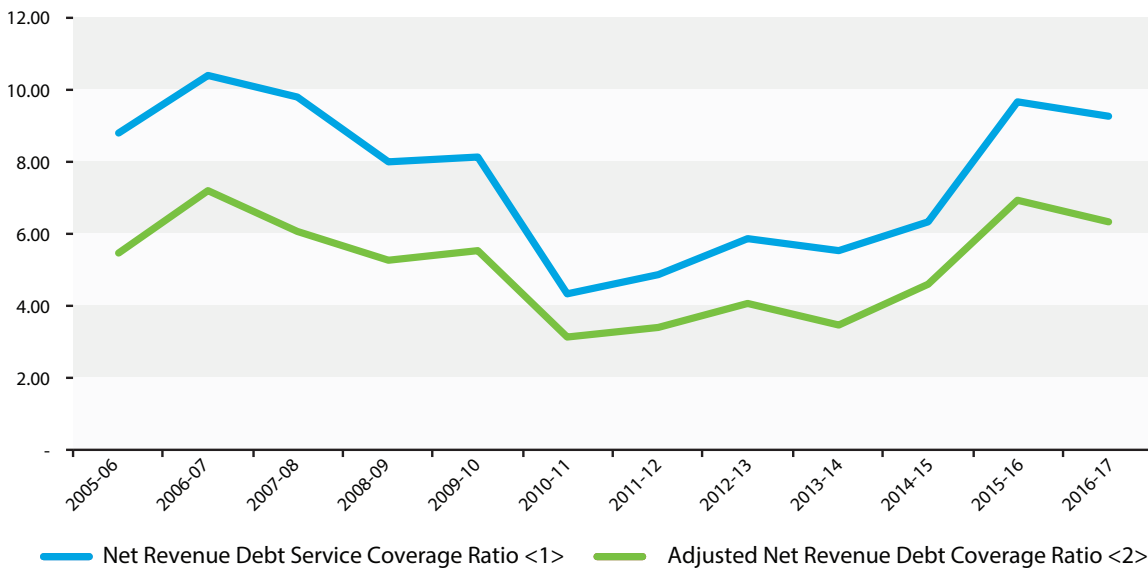
Current debt service expenditures include outstanding payments on a State of California Water Reclamation Loan and 2009 Revenue Bonds. Details on the Debt Service is included in the Debt Program Section. Figure 4 depicts all existing debt payments for the District.

Figure 4 - Debt Service Payment Schedule



An important financial performance metric is the Debt Service Coverage Ratio. The Board target coverage ratio is 2.0. As shown in Figure 5, the District will meet the overall Debt Service Coverage Ratio of 2.0 as required.

Figure 5 - Debt Service Coverage Ratio



<1> This ratio must be above 1.00 to meet the Debt Rate Covenant (Net Revenue/Total Debt Service).

<2> Adjusted Net Revenue = Net Revenue less Capital Improvement Fees (Connection Fees) and City of Concord Capital Charges. This ratio must be above 1.25 to meet the Debt Rate Covenant (Adjusted Net Revenue/Total Debt Service).



Operating Departments

On a day-to-day basis, the three Operating Departments carry out the mission of the District to protect public health and the environment by providing exceptional customer service in wastewater collection, treatment, recycled water, and household hazardous waste collection. The Departments are guided by the District's Strategic Plan, which provides direction and initiatives to help the District achieve its goals and objectives.

The following sections describe the responsibilities of each Department and their operating budget needs. The total operating budget for FY 2016-17 is \$89.8 million.

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Administration Department



The Administration Department consists of the Office of the General Manager, the Office of the Secretary of the District, Human Resources, and Administrative Services. The primary function of the Administration Department is to provide services that support the efficient operation of the District, including administrative support to the General Manager; financial management; purchasing and materials management; information technology; risk management; and human resources. The Department is also responsible for advancing the District's policy objectives with state and federal legislative bodies in addition to being responsible for interagency relations and public affairs.

The Divisions that comprise this Department include:

- Communications Services and Intergovernmental Relations
- Finance
- Human Resources
- Information Technology
- Purchasing and Material Services
- Risk Management
- Office of the General Manager
- Office of the Secretary of the District

Communication Services and Intergovernmental Relations

OVERVIEW

This Division supports the District’s internal and external communications, government relations, community outreach, media relations, District publications, and student educational programming. It also oversees a contracted, full-service reprographics center which serves all District workgroups.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goal:

Goal	Accomplishments
Goal 1 – Provide Exceptional Customer Service	<ul style="list-style-type: none"> - Developed a comprehensive Strategic Communications Plan to increase outreach to our customers. - Launched District communications on Facebook, YouTube, and Twitter social media platforms. - Grew educational outreach through our publications and programs reaching more students with important pollution prevention information. - Developed video public service announcements that televised important and timely pollution prevention messages reaching tens of thousands of viewers. - Comprehensively surveyed our customers to meet/exceed our levels of service, communication, and customer satisfaction.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Number of students served by our education programs	Greater than 2,200 per year
Number of District employees attending annual customer service training	At least 50% of all district staff
Number of participants on treatment plant tours	Greater than 150 participants per year
Number of participants at speaker bureau presentations	Greater than 400 participants per year
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Invest in business process changes and technologies to effectively increase access to District information and promote customer care, convenience, and self-service.	Customer Satisfaction
		Increase customer understanding and support for key issues facing the District.	Stakeholder Understanding and Support
		Build and maintain relationships with federal, state and local elected officials and key stakeholder groups.	Stakeholder Understanding and Support
		Provide high quality customer service.	Customer Satisfaction
	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$627,854	\$625,000	\$664,176	\$39,176	6.3%	\$36,322	5.8%
Employee Benefits	\$546,640	\$560,164	\$513,804	(\$46,360)	-8.3%	(\$32,836)	-6.0%
Repairs & Maintenance	\$1,000	\$1,000	\$1,000	\$0	0%	\$0	0.0%
Professional & Legal Services	\$0	\$0	\$2,600	\$2,600	0%	\$2,600	0.0%
Outside Services	\$340,500	\$340,500	\$409,000	\$68,500	20.1%	\$68,500	20.1%
Materials & Supplies	\$58,975	\$58,975	\$61,675	\$2,700	4.5%	\$2,700	4.6%
Other Expenses	\$342,030	\$340,830	\$472,230	\$131,400	38.6%	\$130,200	38.1%
Total	\$1,916,999	\$1,926,469	\$2,124,485	\$198,016	10.3%	\$207,486	10.8%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Communication Services and Intergovernmental Relations Manager	1.00	1.00
Community Affairs Representative	2.00	2.00
Graphics Technician	1.00	1.00
Media Production Technician	1.00	1.00
Public Information and Production Assistant	1.00	1.00
Total	6.00	6.00

Limited Duration Employees	FY 2015-16	FY 2016-17
Graphic Design Summer Student	1.00	1.00
Total	1.00	1.00

Significant Budget Adjustments

The Communications Services and Intergovernmental Relations Operating Budget for FY 2016-17 is \$2.1 million, a \$207,000 or 10.8% increase over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, the main drivers for the change are outreach for the Comprehensive Wastewater Master Plan, the Central San Academy and Signature Events, mailing of the Proposition 218 notices, and legislative analysis.

Finance

OVERVIEW

This Division is responsible for maintaining internal controls over financial reporting of all District funds and accounts. The Division administers the transactions related to cash and investments, debt service, cash receipts, accounts payable, sewer service charges and all other revenues, payroll, pension, and capital assets. The Division is also responsible for the budget document preparation and coordinates the process with all other departments in the District. Monthly financial statements are prepared, reviewed, and analyzed by the Division and submitted to the Board of Directors for their review. The District is subject to an annual external audit which is also administered and coordinated by the Division. Subsequent to the audit, the Division assembles the Comprehensive Annual Financial Report (CAFR) which is submitted to the Board of Directors and the Government Finance Officers Association.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goal:

Goal	Accomplishment
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	<ul style="list-style-type: none"> - Maintained a AAA credit rating with Standard & Poor's. - Maintained a ratio of net operating revenue over debt service of at least 2:1. - Addressed the unfunded liabilities by paying an additional \$2.5 million in pension contributions and fully funding the Other Post-Employment Benefits (OPEB) annual required contribution. - Received an unmodified (clean) audit opinion on the financial statements. - Maintained service affordability by keeping the sewer service charge below the median of other Bay Area agencies. - Adopted updated Investment and Reserve Policies for the District.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Standard and Poor's Credit Rating	AAA
Debt service coverage ratio	Greater than 2.0 times
Maintain service affordability	Sewer Service Charge less than median of Bay Area agencies
Actual reserves as a percentage of target	100%
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%

Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Improve Interdepartmental Collaboration	Foster employees’ understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	Conduct Long Range Financial Planning	Ensure rate structure is consistent with cost of service principles.	Financial Viability
		Improve the application and processing of capacity fees for consistency across user classes.	Financial Viability
		Develop a long range debt management policy.	Financial Viability
		Develop alternatives for new revenues and funding sources.	Financial Viability
	Manage Costs	Perform targeted audits of critical/high risk functions.	Enterprise Resiliency
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization



Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$1,151,933	\$1,088,863	\$1,155,209	\$66,346	6.1%	\$3,276	0.3%
Employee Benefits	\$1,107,584	\$1,059,943	\$977,212	(\$82,731)	-7.8%	(\$130,372)	-11.8%
Repairs & Maintenance	\$1,000	\$500	\$1,000	\$500	100%	\$0	0.0%
Professional & Legal Services	\$102,750	\$76,900	\$113,750	\$36,850	47.9%	\$11,000	10.7%
Outside Services	\$138,000	\$134,900	\$223,500	\$88,600	65.7%	\$85,500	62.0%
Materials & Supplies	\$15,250	\$11,900	\$9,800	(\$2,100)	-17.6%	(\$5,450)	-35.7%
Other Expenses	\$37,055	\$17,095	\$26,930	\$9,835	57.5%	(\$10,125)	-27.3%
Total	\$2,553,572	\$2,390,101	\$2,507,401	\$117,300	4.9%	(\$46,171)	-1.8%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Accountant	3.00	3.00
Accounting Technician III	3.00	3.00
Finance Administrator	1.00	2.00
Finance Manager	1.00	1.00
Payroll	1.00	1.00
Senior Accountant	1.00	0.00
Total	10.00	10.00

Significant Budget Adjustments

The Finance Operating Budget for FY 2016-17 is \$2.5 million, a \$46,000 or 1.8% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, there were no significant budget changes.

Human Resources

OVERVIEW

This Division manages all Human Resources services, including employee/labor relations; recruitment, testing and selection; classification and compensation; employee benefits administration; District-wide training; and organizational development.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goal:

Goal	Accomplishment
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	<ul style="list-style-type: none"> - Administered over 30 recruitments. - Commenced a District-wide Classification Study and a Total Compensation Study. - Developed and implemented the Supervisory Academy and launched the Mentorship Program. - Held various Human Resources Supervisory Training and “brown bag” sessions. - Negotiated a decrease in health care premiums resulting in annual savings of \$131,800. - Awarded a contract to Alliant Employee Benefits resulting in an annual savings of \$160,000 in employee benefits. - Earn and Learn Award.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Average time to fill vacancy (from request to hire)	Less than 60 days
Percentage turnover rate to remain at or below industry average	Less than 3.4%
Average annual training hours per employee	Track in FY 2016-17, set target for FY 2017-18
Actual versus budgeted usage of tuition reimbursement	Greater than 80%
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels	Develop and implement District-wide training needs.	Employee and Leadership Development
		Develop and train our future leaders.	Employee and Leadership Development
	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
		Sustain and grow collaborative relationships with the labor bargaining units.	Stakeholder Understanding and Support
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview by Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$596,178	\$591,400	\$727,877	\$136,477	23.1%	\$131,699	22.1%
Active Employee Benefits	\$3,196,832	\$3,517,910	\$3,102,572	(\$415,338)	-11.8%	(\$94,260)	-2.9%
Retiree Benefits	\$5,258,400	\$4,914,249	\$5,362,300	\$448,051	9.1%	\$103,900	2.0%
*Additional UAAL	\$0	\$0	\$2,500,000	\$2,500,000	0.00%	\$2,500,000	0.0%
Professional & Legal Services	\$128,250	\$128,250	\$126,100	(\$2,150)	-1.7%	(\$2,150)	-1.7%
Outside Services	\$266,800	\$266,800	\$249,300	(\$17,500)	-6.6%	(\$17,500)	-6.6%
Materials & Supplies	\$17,000	\$17,656	\$18,000	\$344	1.9%	\$1,000	5.9%
Other Expenses	\$25,165	\$16,399	\$18,115	1,716	10.5%	(\$7,050)	-28.0%
Total	\$9,488,625	\$9,452,664	\$12,104,264	\$2,651,600	28.1%	\$2,615,639	27.6%

*Previous years' UAAL payment was made directly to CCCERA and the expense was spread over every salary cost center.

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Human Resources Analyst	3.00	4.00
Human Resources Manager	1.00	1.00
Senior Administrative Technician	1.00	1.00
Total	5.00	6.00

Significant Budget Adjustments

The Human Resources Operating Budget for FY 2016-17 is \$12.1 million, a \$2.6 million or 27.6% increase over last year. This budget also includes funding for retiree benefits and the Other Post Employee Benefit (OPEB) contribution. Outside of the changes in wages and benefits, discussed elsewhere, the main drivers for the change are the budgeting of the additional \$2.5 million to be paid towards the unfunded liability and the addition of a Training Coordinator (Human Resources Analyst) position.



Information Technology

OVERVIEW

This Division supports all computer hardware, software, and telecommunications needs of the District and assists with improvement and automation of District business processes.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goal:

Goal	Accomplishment
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Improved security of network infrastructure by implementing FireEye Cyber Security and Malware Detection, email scanning technology, endpoint protection and updates to internal security policies and procedures. - Improved reliability by installing redundant infrastructure at the Walnut Creek Facility in the event of an outage at the Martinez Facility. - Improved e-mail reliability and reduced number of outages to near zero. - Replaced approximately 200 District PC's and eliminated unsupported Windows XP machines. - Solidified system backup procedures to ensure that backups are performed on a regular basis with periodic testing. - Implemented technology to manage tablet devices such as iPads for use with new Computerized Maintenance Management System, Source Control System, upcoming Timekeeping System and other applications.

Fiscal Years 2016-18 Key Metrics

Metric	FY 2016-18 Target
Information System uptime (excluding planned maintenance)	100%
Data Backup and Recovery	Zero Lost Data
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%

Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Invest in business process changes and technologies to effectively increase access to District information and promote customer care, convenience, and self-service.	Customer Satisfaction
	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 5 – Maintain a Reliable Infrastructure	Protect District Personnel and Assets From Threats and Emergencies	Enhance our capability to mitigate, prepare, respond, and recover from emergencies.	Enterprise Resiliency
		Evaluate and implement appropriate improvements to security program to meet new or evolving threats.	Enterprise Resiliency
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization
	Encourage the Review and Testing of Promising and Leading Technology	Expand and improve the use of cost effective mobile computing and communication technologies.	Operational Optimization



Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$1,386,996	\$1,038,100	\$1,393,793	\$355,693	34.2%	\$6,797	0.5%
Employee Benefits	\$1,227,552	\$1,178,055	\$1,195,703	\$17,648	1.5%	(\$31,849)	-2.6%
Utilities	\$82,000	\$82,000	\$95,040	\$13,040	15.9%	\$13,040	15.9%
Repairs & Maintenance	\$459,250	\$461,500	\$767,650	\$306,150	66.3%	\$308,400	67.2%
Outside Services	\$374,000	\$400,000	\$196,000	(\$204,000)	-51.0%	(\$178,000)	-47.6%
Materials & Supplies	\$9,240	\$15,200	\$10,200	(\$5,000)	-32.9%	\$960	10.4%
Other Expenses	\$39,565	\$26,565	\$42,565	\$16,000	60.2%	\$3,000	7.6%
Total	\$3,578,603	\$3,201,420	\$3,700,951	\$499,531	15.6%	\$122,348	3.4%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Information Technology Analyst	1.00	1.00
Information Technology Manager	1.00	1.00
Information Technology Supervisor	2.00	2.00
Programmer Analyst	1.00	1.00
Project Manager/Business Analyst	1.00	1.00
System Administrator	2.00	2.00
Technical Support Analyst	3.00	3.00
Total	11.00	11.00
Limited Duration Employees	FY 2015-16	FY 2016-17
Computer Technician Summer Student	1.00	0.00
Total	1.00	0.00

Significant Budget Adjustments

The Information Technology Operating Budget for FY 2016-17 is \$3.7 million, a \$122,000 or 3.4% increase over last year. Outside of the changes in wages and benefits, discussed elsewhere, the main drivers for the change are increased costs for Information Technology backup, ESRI, Cityworks and other various software maintenance contracts, and the transfer of Information Technology maintenance services that were previously in the Engineering budget.

Purchasing and Material Services

OVERVIEW

This Division provides the necessary materials, supplies, equipment, services and information to support District operations. The Division is responsible for contracting and procurement for all District departments (except construction contracts), ensuring compliance with applicable federal, state, and local regulations. The District’s warehouse inventories, receives, and distributes supplies, materials and equipment to all departments in addition to inventory control analysis and surplus disposition.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 5 – Maintain a Reliable Infrastructure	<ul style="list-style-type: none"> - Updated prevailing wage contract language to be SB854 compliant and implemented Department of Industrial Relations (DIR) registration requirements for prevailing wage jobs. - Continued inventory cycle count program and maintained a 97% accuracy rate. - Successfully solicited and awarded high-level, service-based contracts. - Updated contract, agreement, and purchase order terms and conditions and template format.
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Earned the Achievement of Excellence in Procurement Award for innovation, professionalism, productivity, e-procurement, and leadership attributes of the procurement organization for the fifth consecutive year.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Invest in business process changes and technologies to effectively increase access to District information and promote customer care, convenience, and self-service.	Customer Satisfaction
	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview by Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$838,546	\$810,900	\$857,600	\$46,700	5.8%	\$19,054	2.3%
Employee Benefits	\$893,386	\$856,037	\$782,607	(\$73,430)	-8.6%	(\$110,779)	-12.4%
Repairs & Maintenance	\$23,000	\$23,000	\$23,000	\$0	0.0%	\$0	0.0%
Professional & Legal Services	\$15,000	\$15,000	\$35,000	\$20,000	133.3%	\$20,000	133.3%
Outside Services	\$29,000	\$6,089	\$29,000	\$22,911	376.3%	\$0	0.0%
Materials & Supplies	\$14,000	\$14,000	\$14,000	\$0	0.0%	\$0	0.0%
Other Expenses	\$25,900	\$16,900	\$21,900	\$5,000	29.6%	(\$4,000)	-15.4%
Total	\$1,838,832	\$1,741,926	\$1,763,107	\$21,181	1.2%	(\$75,725)	-4.1%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Materials Services Coordinator	2.00	2.00
Materials Services Supervisor	1.00	1.00
Purchasing and Materials Manager	1.00	1.00
Senior Buyer	3.00	3.00
Senior Materials Coordinator	1.00	1.00
Total	8.00	8.00
Limited Duration Employees	FY 2015-16	FY 2016-17
Warehouse Summer Student	1.00	1.00
Total	1.00	1.00

Significant Budget Adjustments

The Purchasing and Material Services Operating Budget for FY 2016-17 is \$1.76 million, a \$76,000 or 4% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, there were no significant budget changes.



Risk Management

OVERVIEW

This Division protects the District from loss or damage to its personnel and assets. It manages Workers' Compensation, liability claims, security programs, insurance procurement, self-insurance funding, contract and insurance review, litigation support, and the District's Emergency Preparedness and Response Programs.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	<ul style="list-style-type: none"> - Reduced the District's self-insured retention for liability losses by 50%.
Goal 5 – Maintain a Reliable Infrastructure	<ul style="list-style-type: none"> - Initiated a multiyear business continuity planning process. - Acquired P25-compliant radios to allow interoperable communications with other jurisdictions during emergencies. - Updated the Emergency Operations Plan.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Workers Compensation experience modifier	Less than 1.0
Return to Work	Provide modified duty for greater than 80% of occupational injuries
Self-insurance reserves as a percentage of target	100%
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%

Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Improve Interdepartmental Collaboration	Foster employees’ understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	Manage Costs	Evaluate and implement risk management practices to minimize loss.	Enterprise Resiliency
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 5 – Maintain a Reliable Infrastructure	Manage Assets Optimally Throughout Their Lifecycle	Update the Consequence of Failure Matrices.	Enterprise Resiliency
	Protect District Personnel and Assets From Threats and Emergencies	Enhance our capability to mitigate, prepare, respond, and recover from emergencies.	Enterprise Resiliency
		Evaluate and implement appropriate improvements to our security program to meet new or evolving threats.	Enterprise Resiliency
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization



Budget Overview by Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$226,657	\$224,400	\$238,944	\$14,544	6.5%	\$12,287	5.4%
Employee Benefits	\$251,335	\$241,032	\$228,392	(\$12,640)	-5.2%	(\$22,943)	-9.1%
Repairs & Maintenance	\$27,500	\$32,000	\$35,000	\$3,000	9.4%	\$7,500	27.3%
Professional & Legal Services	\$61,800	\$55,000	\$61,800	\$6,800	12.4%	\$0	0.0%
Outside Services	\$433,000	\$433,000	\$408,000	(\$25,000)	-5.8%	(\$25,000)	-5.8%
Self-Insurance Expense	\$1,500,000	\$1,500,000	\$920,000	(\$580,000)	-38.7%	(\$580,000)	-38.7%
Materials & Supplies	\$218,000	\$218,000	\$103,000	(\$115,000)	-52.8%	(\$115,000)	-52.8%
Other Expenses	\$17,650	\$17,650	\$13,650	(\$4,000)	-22.7%	(\$4,000)	-22.7%
Total	\$2,735,942	\$2,721,082	\$2,008,786	(\$712,296)	-26.2%	(\$727,156)	-26.6%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Risk Management Administrator	1.00	1.00
Risk Management Technician	1.00	1.00
Total	2.00	2.00
Limited Duration Employees	FY 2015-16	FY 2016-17
Clerical Summer Student	0.00	1.00
Total	0.00	1.00

Significant Budget Adjustment

The Risk Management Operating Budget for FY 2016-17 is \$2.0 million, a \$727,000 or 27% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, the main drivers for the change are a reduction in the self-insurance expense and safety supplies.

Office of The General Manager and Office of the Secretary of the District

OFFICE OF THE GENERAL MANAGER – OVERVIEW

The primary mission of the Office of the General Manager is to work with the Board of Directors to establish policies and procedures, and the overall goals and Strategic Plan of the District. The General Manager reports directly to the Board of Directors and provides general oversight to all District operations, interagency relations, legislative activities, communications, and the Strategic Plan.

Office of the General Manager – Fiscal Year 2015-16 Accomplishments and Fiscal Year 2016-17 Strategic Initiatives

The General Manager oversees all operations of the District. This office provides direction, support, and resources to the departments to effectively and efficiently accomplish the Mission, Vision and Goals of the District. The accomplishments and FY 2016-17 Strategic Initiatives for the District are embodied in each of the individual divisions and programs. Highlights of the District's accomplishments are included in the General Manager's message at the beginning of the Budget Book.

OFFICE OF THE SECRETARY OF THE DISTRICT – OVERVIEW

The Office of the Secretary of the District provides administrative support to the five elected Board of Directors and manages the Board of Directors and Committee meeting process, including the preparation and distribution of agendas and minutes, and the publication of notices of public hearings. It coordinates compliance with Fair Political Practices Commission Regulations and the Brown Act, receives legal claims against the District, and coordinates ethics training and Brown Act training for Board of Directors and staff. It also manages the District's Records Management Program and responds to Public Records Act requests.

Office of the Secretary of the District – Fiscal Year 2015-16 Accomplishments

The Office of the Secretary of the District had several accomplishments as it related to the following District Goals:

Goal	Accomplishment
Goal 1 – Provide Exceptional Customer Service	<ul style="list-style-type: none"> - Coordinated meetings for Board of Directors liaisons with representative cities and agencies. - Established videotaping of Board of Directors meetings available to the public on the District’s website. - Continued transition to electronic delivery of agenda packets and other materials to Board of Directors. - Produced a “Guide to the Board Meeting Process” for use by staff. - Improved the Board and Committee meeting process by improving the Position Paper template, simplifying the 30-Day Schedule, and standardizing due dates for Committee agenda material.
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Awarded Transparency Certificate of Excellence from California Special Districts Association. - Coordinated the celebration for the renaming of the Environmental Laboratory to the Dr. Mario M. Menesini Environmental Laboratory.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Number of students attending Citizens Academy	Greater than 30 participants per session
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%

Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Invest in business process changes and technologies to effectively increase access to District information and promote customer care, convenience, and self-service.	Customer Satisfaction
		Increase customer understanding and support for key issues facing the District.	Stakeholder Understanding and Support
		Provide high quality customer service.	Customer Satisfaction
	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$1,417,424	\$1,490,900	\$1,502,326	\$11,426	0.8%	\$84,902	6.0%
Employee Benefits	\$1,059,931	\$1,463,781	\$967,263	(\$496,518)	-33.9%	(\$92,668)	-8.7%
Director Fees & Expenses	\$132,177	\$159,916	\$168,555	\$8,639	5.4%	\$36,378	27.5%
Repairs & Maintenance	\$10,800	\$10,800	\$10,800	\$0	0.0%	\$0	0.0%
Professional & Legal Services	\$189,400	\$145,000	\$145,000	\$0	0.0%	(\$44,400)	-23.4%
Outside Services	\$231,000	\$235,000	\$246,000	\$11,000	4.7%	\$15,000	6.5%
Materials & Supplies	\$20,150	\$20,150	\$20,150	\$0	0.0%	\$0	0.0%
Other Expenses	\$124,305	\$114,305	\$559,905	\$445,600	389.8%	\$435,600	350.4%
Total	\$3,185,187	\$3,639,852	\$3,619,999	(\$19,853)	-0.6%	\$434,812	13.7%



Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Administrative Services Supervisor	1.00	1.00
Assistant to the Secretary of the District	1.00	1.00
Director of Budget and Finance	1.00	1.00
Executive Assistant	1.00	1.00
General Manager	1.00	1.00
Secretary of the District	1.00	1.00
Senior Administrative Technician	4.00	4.00
Total	10.00	10.00
Limited Duration Employees	FY 2015-16	FY 2016-17
Clerical Summer Student	1.00	1.00
Total	1.00	1.00

Significant Budget Adjustments

The Office of the General Manager/Office of the Secretary of the District Operating Budget for FY 2016-17 is \$3.6 million, a \$435,000 or 14% increase over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, the main driver for the change is the Fall 2016 Board Election.

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Engineering and Technical Services Department



The Engineering and Technical Services Department consists of three Divisions that report to the Director of Engineering and Technical Services. The primary functions of the Engineering and Technical Services Department are the planning, design, and construction or rehabilitation of treatment plant, collection system, and recycled water infrastructure; development services, including right of way, property management, development inspection, and mainline plan review; environmental compliance monitoring of industrial business; regulatory compliance and permit monitoring; laboratory analysis; and management of the Household Hazardous Waste Facility.

The Divisions that comprise this Department include:

- Capital Projects
- Environmental and Regulatory Compliance
- Planning and Development Services

Capital Projects Division

OVERVIEW

This Division conducts and manages the design, public bidding, and construction of projects to improve or rehabilitate our treatment plant, pumping stations, pipelines and recycled water system. In addition, this Division manages general facilities modifications, safety improvements, and recycled water infrastructure projects. This Division also oversees the computer aided design (CAD) and survey groups and works as one of the primary engineering resources at the District.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	<ul style="list-style-type: none"> - Streamlined and evaluated the elimination of the Capital Improvement Budget allocation process.
Goal 5 – Maintain a Reliable Infrastructure	<ul style="list-style-type: none"> - Replaced approximately 3.7 miles of sanitary sewers including renovating 3,100 feet of 42-inch RCP sewer in Martinez, and various 6-inch clay sewer mains with 8-inch sewers in Lafayette, Walnut Creek, and Martinez. - Designed and bid three critical treatment plant projects (Sub 16 Switchgear; Pump and Blower Building Seismic; and Headwork’s Screening Project). - Awarded the construction contract for the Pleasant Hill Grayson Creek Trunk Sewer Project (total project cost of \$13.7 million). This project will help relieve the capacity limited sewers in Pleasant Hill and allow for future renovations and coordination with the anticipated paving program in Pleasant Hill, specifically Pleasant Hill Road. - Completed the Caustic Injection Project and other improvements at the treatment plant to comply with the upcoming AB 197 Air Regulations.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Miles of pipeline replaced	Greater than 1% of assets
Capital expenditures as a percentage of capital budgeted cash flow	Greater than 90%
Average customer satisfaction rating on construction projects	Greater than 95%
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Provide high quality customer service.	Customer Satisfaction
	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 5 – Maintain a Reliable Infrastructure	Manage Assets Optimally Throughout Their Lifecycle	Implement Board approved recommendations from the Comprehensive Wastewater Master Plan and Condition Assessment.	Infrastructure Strategy and Performance
	Facilitate Long-Term Capital Renewal and Replacement	Integrate the data from the Asset Management Program into the analysis of long term Capital Improvement needs.	Infrastructure Strategy and Performance
		Implement business case evaluations, including life-cycle cost, into proposals for new CIP projects to determine most effective projects and solutions.	Infrastructure Strategy and Performance
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
*Salaries & Wages	\$1,756,764	\$1,771,000	\$1,879,280	\$108,280	6.11%	\$122,516	7.0%
*Employee Benefits	(\$925,002)	(\$125,899)	(\$887,526)	(\$761,627)	605.0%	\$37,476	-4.1%
Utilities	\$23,600	\$24,000	\$24,000	\$0	0.0%	\$400	1.7%
Repairs & Maintenance	\$29,350	\$29,350	\$19,500	(\$9,850)	-33.6%	(\$9,850)	-33.6%
Professional & Legal Services	\$100	\$100	\$0	(\$100)	-100.0%	(\$100)	-100.0%
Outside Services	\$128,325	\$130,325	\$73,225	(\$57,100)	-43.8%	(\$55,100)	-42.9%
Materials & Supplies	\$31,880	\$35,480	\$32,300	(\$3,180)	-9.0%	\$420	1.3%
Other Expenses	\$76,559	\$77,294	\$59,125	(\$18,169)	-23.5%	(\$17,434)	-22.8%
Total	\$1,121,576	\$1,941,650	\$1,199,904	(\$741,746)	-38.2%	\$78,328	7.0%

*This Division charges a large amount of time to capital projects. As a result, 85% of their salary and benefit expenses appear in the Sewer Construction Fund's Budget for FY 2016-17

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Administrative Services Supervisor	0	1.00
Administrative Assistant	2.00	1.00
Assistant Engineer	8.00	8.00
Assistant Land Surveyor	2.00	2.00
Associate Engineer	7.00	7.00
Capital Projects Division Manager	1.00	1.00
Engineering Assistant II	1.00	1.00
Engineering Technician I/II	1.00	1.00
Engineering Technician III	3.00	3.00
Land Surveyor	1.00	1.00
Senior Engineer	2.00	2.00
Senior Engineering Assistant	1.00	1.00
Total	29.00	29.00
Limited Duration Employees	FY 2015-16	FY 2016-17
Engineering Assistant Summer Student	4.00	3.00
Co-op	3.00	3.00
Total	7.00	6.00

Significant Budget Adjustments

The Capital Projects Operating Budget for FY 2016-17 is \$1.2 million, a \$78,000 or 7% increase over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, the increased costs were mitigated by the transfer of software maintenance to the Information Technology Division and the transfer of cathodic protection contract work to the Plant Maintenance Division.

Environmental and Regulatory Compliance Division

OVERVIEW

This Division oversees and ensures that District activities and operations are in compliance with applicable federal, state, and local environmental laws, regulations, and policies. The Division ensures the District's permitted businesses and industrial customers comply with all applicable requirements to protect the environment as well as the District's assets; manage the Household Hazardous Waste Collection Program and residential recycled water fill station; receive and interpret laboratory data and apply results to regulatory requirements, ensures the treatment plant's effluent meets all water quality standards; evaluates treatment plant operations to ensure compliance with all air pollution control standards; evaluates the effectiveness of regulatory compliance programs; develops and implements new programs as mandated by legislation and/or policy; monitors and analyzes legislation and new regulations that impact regulatory compliance; and represents the District before boards, political bodies, committees, and the general public.

Fiscal Year 2015-2016 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 2 – Meet All Regulatory Requirements	<ul style="list-style-type: none"> - Prepared all NPDES required reports to the Regional Water Quality Control Board (individual NPDES Permit, Nutrient Watershed Permit). - Prepared all required reports to satisfy Title V Permit requirements. - Prepared the 2015 greenhouse gas inventory to the California Air Resource Board. - Prepared the Recycled Water Quality and Distribution Annual Report to the Regional Water Quality Control Board. - Developed a permit matrix of all regulatory permits within the District. - Completed all required laboratory monitoring and analyses.
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Served 932 more vehicles than the same period last year (July – March) at the Recycled Water Fill Station. - 24,905 visits to the Household Hazardous Waste Facility by residents, small businesses, reuse customers, and retail partners.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
NPDES Compliance	Zero violations
Title V Compliance	Zero violations
Recycled Water Title 22 Compliance	Zero violations
Annual source controls inspections completed on time	100%
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%

Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 2 – Strive to Meet Regulatory Requirements	Strive to Achieve 100% Permit Compliance in Air, Water, Land and Other Regulations	Renew treatment plant NPDES Permit.	Product Quality
		Meet existing regulations and plan for future regulations.	Product Quality
		Foster relationships with regulatory agencies.	Stakeholder Understanding and Support
		Monitor and track proposed and pending legislation/ regulatory changes that may impact District operations.	Stakeholder Understanding and Support
		Actively manage greenhouse gas emissions in the most cost effective and responsible manner.	Community Sustainability
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization



Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$3,299,621	\$3,302,800	\$3,412,647	\$109,847	3.3%	\$113,026	3.4%
Employee Benefits	\$3,126,005	\$3,085,056	\$2,672,956	(\$412,100)	-13.4%	(\$453,049)	-14.5%
Utilities	\$13,500	\$14,000	\$32,700	\$18,700	133.6%	\$19,200	142.2%
Repairs & Maintenance	\$97,000	\$77,632	\$106,500	\$28,868	37.2%	\$9,500	9.8%
Hauling & Disposal	\$472,700	\$422,700	\$423,000	\$300	0.1%	(\$49,700)	-10.5%
Professional & Legal Services	\$6,000	\$5,500	\$6,000	\$500	9.1%	\$0	0.0%
Outside Services	\$878,700	\$765,675	\$859,200	\$93,525	12.2%	(\$19,500)	-2.2%
Materials & Supplies	\$290,500	\$277,800	\$286,700	\$8,900	3.2%	(\$3,800)	-1.3%
Other Expenses	\$869,141	\$845,602	\$443,639	(\$401,963)	-47.5%	(\$425,502)	-49.0%
Total	\$9,053,167	\$8,796,765	\$8,243,342	(\$553,423)	-6.3%	(\$809,825)	-9.0%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Administrative Assistant	1.00	1.00
Assistant Engineer	1.00	1.00
Associate Engineer	2.00	2.00
Chemist I/II	5.00	5.00
Chemist III	1.00	1.00
Environmental and Regulatory Compliance Division Manager	1.00	1.00
Environmental Compliance Inspector I/II	6.00	6.00
Environmental Compliance Superintendent	1.00	1.00
Household Hazardous Waste Supervisor	1.00	1.00
Household Hazardous Waste Technician I/II	3.00	3.00
Laboratory Superintendent	1.00	1.00
Senior Chemist	1.00	1.00
Senior Engineer	1.00	1.00
Senior Environmental Compliance Inspector	2.00	2.00
Senior Household Hazardous Waste Technician	2.00	2.00
Total	29.00	29.00
Limited Duration Employees	FY 2015-16	FY 2016-17
Laboratory Assistant Summer Student	2.00	1.00
Co-op	2.00	3.00
Total	4.00	4.00

Significant Budget Adjustments

The Environmental and Regulatory Compliance Operating Budget for FY 2016-17 is \$8.2 million, a \$809,000 or 9% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, the main drivers for the change are the transfer of public agency fees to the Plant Operations Division, and the transfer of recycled water costs to the Recycled Water Program.



Planning and Development Services Division

OVERVIEW

This Division provides planning and applied research for the District's collection system, treatment plant, and recycled water facilities and programs; oversees asset management, geographic information systems (GIS) and computerized maintenance management systems (CMMS); and financial planning for rates for connection fees, permits and sewer service charges, and development services, including right of way, property management, development inspection, permit counter operations, and mainline plan review.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal Alignment	Accomplishment
Goal 2 – Meet All Regulatory Requirements	<ul style="list-style-type: none"> - The Comprehensive Wastewater Master Plan for the collection system and the treatment plant is being implemented on schedule and within budget. - Initiated implementation of Infoworks® hydrodynamic model and second phase of the flow calibration by installing 72 meters in the collection system to collect wet weather data.
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	<ul style="list-style-type: none"> - Performed a comprehensive historical review of 84 schools to compare actual water consumption with assumptions in new FY 2015-16 rates, which resulted in reduction in high school rate and refunds of approximately \$108,000 in revenue.
Goal 5 – Maintain a Reliable Infrastructure	<ul style="list-style-type: none"> - Began implementation of a new CMMS platform called CityWorks. Also updated the GIS to a new ESRI platform. - Participated in the Lower Walnut Creek Stakeholders Advisory Group for long-term planning on the outfall property.
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Conducted several pilot studies and applied research such as: Zeolite Anammox, centrifuge testing, caustic soda addition to the wet scrubber, and sludge screening press. - Implemented construction of the Solar Regional Project. Three sites are being implemented at the District using Power Purchase Agreement. - Obtained the Land Use Permit for the AgLantis sustainable farm on 14.8 acres of District property.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Average customer satisfaction rating on permit counter interactions	Greater than 95%
Complete implementation of Infomaster	By First Quarter of 2017
kWh of solar power produced at CSO and HHW	Greater than 200 kWh per year (reported as a rolling average)
Pilot Test new and promising technology	Greater than 3 pilot tests or reviews per year
Present research papers and findings	Greater than 3 papers per year
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%

Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Invest in Business Process Changes and Technologies to Effectively Increase Access to District Information and Promote Customer Care, Convenience and Self-Service	Foster employees’ understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Customer Satisfaction
	Improve Interdepartmental Collaboration	Foster employees’ understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	Conduct Long Range Financial Planning	Ensure rate structure is consistent with cost of service principles.	Financial Viability
		Develop alternatives for new revenues and funding sources.	Financial Viability
		Review funding alternatives.	Financial Viability
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 5 – Maintain a Reliable Infrastructure	Facilitate Long-Term Capital Renewal and Replacement	Integrate the data from the Asset Management Program into the analysis of long term Capital Improvement needs.	Infrastructure Strategy and Performance
		Implement business case evaluations, including life-cycle cost, into proposals for new CIP projects to determine most effective projects and solutions.	Infrastructure Strategy and Performance
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization
	Reduce reliance on Non-Renewable Energy	Explore opportunities for self-generation, conservation and efficiency based on the approved Comprehensive Wastewater Master Plan.	Community Sustainability



Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$3,393,452	\$3,242,200	\$3,685,044	\$442,844	13.7%	\$291,592	8.6%
Employee Benefits	\$1,949,977	\$1,956,607	\$1,770,926	(\$185,681)	-9.5%	(\$179,051)	-9.2%
Utilities	\$160,700	\$140,700	\$120,400	(\$20,300)	-14.4%	(\$40,300)	-25.1%
Repairs & Maintenance	\$59,400	\$42,000	\$59,400	\$17,400	41.4%	\$0	0.0%
Professional & Legal Services	\$123,000	\$112,000	\$115,000	\$3,000	2.7%	(\$8,000)	-6.5%
Outside Services	\$616,000	\$456,000	\$579,100	\$123,100	27.0%	(\$36,900)	-6.0%
Materials & Supplies	\$37,950	\$34,300	\$37,550	\$3,250	9.5%	(\$400)	-1.1%
Other Expenses	\$153,600	\$93,068	\$88,474	(\$4,594)	-4.9%	(\$65,126)	-42.4%
Total	\$6,494,079	\$6,076,875	\$6,455,894	\$379,019	6.2%	(\$38,185)	-0.6%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Administrative Assistant	1.00	1.00
Assistant Engineer	2.00	2.00
Associate Engineer	4.00	4.00
Construction Inspector	4.00	4.00
Development Services Supervisor	2.00	2.00
Director of Engineering and Technical Services	1.00	1.00
Engineering Assistant III	5.00	5.00
Engineering Technician I/II	4.00	4.00
GIS Analyst	2.00	2.00
GIS/CMMS Administrator	1.00	1.00
Maintenance Planner	1.00	1.00
Planning and Development Services Division Manager	1.00	1.00
Program Manager	0.00	1.0
Senior Engineer	4.00	4.00
Senior Right-of-Way Agent	2.00	2.00
Total	34.00	35.00

Limited Duration Employees	FY 2015-16	FY 2016-17
Engineering Assistant Summer Student	3.00	6.00
Co-op	3.00	4.00
Total	6.00	10.00

Significant Budget Adjustments

The Planning and Development Services Operating Budget for FY 2016-17 is \$6.5 million, a \$38,000 or 0.6% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, wages increased by the addition of a Program Manager position. Increased costs were mitigated by the transfer of some costs to the Recycled Water Program and a reduction in utility costs.

Operations Department



The Operations Department consists of three Divisions, the District Safety Program, and the Recycled Water Program that report to the Deputy General Manager. The primary function of the Operations Department is to collect, treat, and dispose of wastewater in compliance with regulatory requirements. This includes operations and maintenance of pipelines, pumping stations and treatment facilities; oversight of power generation operations; fleet maintenance; and management of computerized control equipment and systems.

The Divisions and Programs that comprise this Department include:

- Collection System Operations
- Plant Maintenance
- Plant Operations
- District Safety Program
- Recycled Water Program

Collection System Operations Division

OVERVIEW

This Division is responsible for cleaning, maintaining and repairing of more than 1,500 miles of collection sewers, trunk sewers and forcemains in the District’s vast collection system, as well as maintaining the recycled water distribution system. The Division is also responsible for the maintenance of all District vehicles.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 1 – Provide Exceptional Customer Service	<ul style="list-style-type: none"> Responded to over 1,000 customer service phone calls. Achieved an average customer service satisfaction rating of 3.81 out of 4.0. Average response to all emergency service calls was 36.5 minutes.
Goal 2 – Strive to Meet Regulatory Requirements	<ul style="list-style-type: none"> Reduced sanitary sewer overflows to 2.83 per 100 miles and had no pumping station or capacity related overflows. Cleaned 850 miles of sanitary sewers. Televised 180 miles of sanitary sewers.
Goal 5 – Maintain a Reliable Infrastructure	<ul style="list-style-type: none"> Completed more than 975 services on District vehicles and equipment; on schedule 100% of the time. Completed more than 20,900 cleaning schedules and work orders; completed on schedule 99% of the time.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Average onsite response time for collection system emergency calls, during working hours	Less than 20 minutes
Average onsite response time for collection system emergency calls, after hours	Less than 30 minutes
Average customer service rating for emergency calls	At least 3.8 out of 4.0
Sanitary Sewer Overflows	Less than 3.0 spills per 100 miles of pipeline
Spills to Public Water	Less than 3
Percent of Spills less than 500 gallons	Greater than 95%
Pipeline cleaning schedules completed on time	Greater than 95%
Pipeline Cleaning Quality Assurance/Quality Control (QA/QC)	On at least 3% of pipeline cleaned on an annual basis
Pipeline Cleaning QA/QC passing rate	Greater than 98%
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Provide high quality customer service.	Customer Satisfaction
	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 2 – Strive to Meet Regulatory Requirements	Strive to Minimize the Number of SSOs	Complete the collection system scheduled maintenance on time and optimize cleaning schedules to improve efficiencies.	Infrastructure Strategy and Performance
		Continue the pipeline condition assessment and cleaning quality assurance program using the system wide CCTV program.	Infrastructure Strategy and Performance
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	Manage Costs	Perform optimization studies of treatment plant and field operations to reduce costs.	Operational Optimization
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 5 – Maintain a Reliable Infrastructure	Manage Assets Optimally Throughout Their Lifecycle	Manage and maintain current equipment and vehicle fleet to provide maximum value.	Infrastructure Strategy and Performance
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$6,014,774	\$5,941,900	\$6,107,988	\$166,088	2.8%	\$93,214	1.6%
Employee Benefits	\$5,996,914	\$6,019,607	\$5,433,375	(\$586,232)	-9.7%	(\$563,539)	-9.4%
Utilities	\$137,400	\$137,400	\$139,400	\$2,000	1.5%	\$2,000	1.5%
Repairs & Maintenance	\$1,721,250	\$1,257,000	\$1,631,502	\$374,502	29.8%	(\$89,748)	-5.2%
Hauling & Disposal	\$122,800	\$121,500	\$131,000	\$9,500	7.8%	\$8,200	6.7%
Professional & Legal Services	\$5,000	\$5,000	\$5,000	\$0	0.0%	\$0	0.0%
Outside Services	\$82,940	\$66,120	\$106,700	\$40,580	61.4%	\$23,760	28.7%
Materials & Supplies	\$767,500	\$719,300	\$774,150	\$54,850	7.6%	\$6,650	0.9%
Other Expenses	\$147,676	\$115,296	\$142,938	\$27,642	24.0%	(\$4,738)	-3.2%
Total	\$14,996,254	\$14,383,123	\$14,472,053	\$88,930	0.6%	(\$524,201)	-3.5%



Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Administrative Assistant	1.00	1.00
Administrative Services Supervisor	1.00	1.00
Administrative Technician	2.00	2.00
Collection System Maintenance Scheduler	1.00	1.00
Collection System Operations Division Manager	1.00	1.00
Construction Equipment Operator	3.00	2.00
Field Operations Superintendent	1.00	1.00
Maintenance Crew Leader	18.00	18.00
Maintenance Crew Member I/II	17.00	18.00
Maintenance Supervisor	4.00	4.00
Safety Specialist	1.00	0.00
Senior Engineer	1.00	1.00
Utility Worker	2.00	2.00
Vehicle and Equipment Mechanic	3.00	3.00
Vehicle Maintenance and Equipment Maintenance Supervisor	1.00	1.00
Total	57.00	56.00
Limited Duration Employees	FY 2015-16	FY 2016-17
Laborer Summer Student	3.00	3.00
Clerical Summer Student	1.00	1.00
Total	4.00	4.00

Significant Budget Adjustments

The Collection System Operations Operating Budget for FY 2016-17 is \$14.5 million, a \$524,000 or 3.5% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, increases in wages were offset by a recent reorganization in staffing for the Vehicle and Equipment Shop. In FY 2015-16, Field Superintendent position and a Vehicle Service Worker position were deleted and a Vehicle and Equipment Mechanic and Maintenance Crew Leader were added, which resulted in a cost savings. A Safety Specialist position was also transferred to the Safety Section. Other main drivers for the change are the addition of Automatic Vehicle Location (AVL) for all District vehicles so that they can respond to emergencies in a faster and more efficient manner, the rebuilding of two rodder assemblies, and the transfer of some costs to the Recycled Water Program.

Plant Maintenance Division

OVERVIEW

This Division is responsible for maintaining all mechanical, electrical, and instrumentation equipment and systems for the treatment plant, laboratory and 19 pumping stations as well as all buildings and grounds at the Martinez campus. The Maintenance Division also consists of a reliability engineering group, which provides technical support for the Division’s maintenance planning and manages our Preventative Maintenance Program. The pumping station group operates and maintains the 19 pumping stations.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 2 – Strive to Meet Regulatory Requirements	<ul style="list-style-type: none"> Maintained all equipment and systems to achieve the National Association of Clean Water Agencies (NACWA) Peak Performance Platinum Award.
Goal 5 – Maintain a Reliable Infrastructure	<ul style="list-style-type: none"> Continued to make refinements to existing Computer Maintenance Management System asset register and Preventative Maintenance Program in preparation to migrating to new Cityworks maintenance management system and to support the District’s asset management goals. 97% of preventative maintenance work orders completed on schedule. Continued expansion of the Condition Based Predictive Maintenance Program. Began training staff on reliability centered maintenance.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Safety work orders completed on time	100%
Regulatory Title V work orders completed on time	100%
Planned treatment plant preventative maintenance completed on time	Greater than 95%
kWh of Electricity produced	Greater than 18 million kWh per year (reported as a rolling average)
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 2 – Strive to Meet Regulatory Requirements	Strive to Achieve 100% Permit Compliance in Air, Water, Land and Other Regulations	Actively manage greenhouse gas in the most cost effective and responsible manner.	Community Sustainability
Goal 3 – Be a Fiscally Sound And Effective Water Sector Utility	Manage Costs	Perform optimization studies of treatment plant and field operations to reduce costs.	Operational Optimization
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 5 – Maintain a Reliable Infrastructure	Manage Assets Optimally Throughout Their Lifecycle	Implement Board approved recommendations of the Wastewater Master Plan and Condition Assessment.	Infrastructure Strategy and Performance
		Implement the Reliability Centered Maintenance Program.	Infrastructure Strategy and Performance
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$4,948,847	\$4,980,518	\$5,259,306	\$278,788	5.6%	\$310,459	6.3%
Employee Benefits	\$4,684,651	\$4,472,912	\$4,355,893	(\$117,019)	-2.6%	(\$328,758)	-7.0%
Chemicals	\$430,000	\$430,000	\$430,000	\$0	0.0%	\$0	0.0%
Utilities	\$517,350	\$518,550	\$518,550	\$0	0.0%	\$1,200	0.2%
Repairs & Maintenance	\$2,806,950	\$2,834,950	\$2,416,300	(\$418,650)	-14.8%	(\$390,650)	-13.9%
Hauling & Disposal	\$138,800	\$138,800	\$138,800	\$0	0.0%	\$0	0.0%
Outside Services	\$167,100	\$209,100	\$237,650	\$28,550	13.7%	\$70,550	42.2%
Materials & Supplies	\$534,200	\$717,300	\$539,200	(\$178,100)	-24.8%	\$5,000	0.9%
Other Expenses	\$136,163	\$124,523	\$140,001	\$15,478	12.4%	\$3,838	2.8%
Total	\$14,364,061	\$14,426,653	\$14,035,700	(\$390,953)	-2.7%	(\$328,361)	-2.3%



Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Assistant Engineer	1.00	1.00
Buildings and Grounds Supervisor	1.00	1.00
Electrical Shop Supervisor	1.00	1.00
Electrical Technician	4.00	4.00
Instrument Shop Supervisor	1.00	1.00
Instrument Technician	3.00	3.00
Machinist	2.00	2.00
Maintenance Crew Leader	1.00	1.00
Maintenance Planner	2.00	3.00
Maintenance Technician I/II Mechanical	2.00	2.00
Maintenance Technician III, Mechanical	7.00	7.00
Mechanical Supervisor	2.00	2.00
Painter	1.00	1.00
Plant Maintenance Division Manager	1.00	1.00
Plant Maintenance Superintendent	1.00	1.00
Pumping Stations Operator I/II	4.00	4.00
Pumping Stations Operator III	2.00	2.00
Pumping Stations Supervisor	1.00	1.00
Senior Engineer	1.00	1.00
Utility Worker	7.00	7.00
Total	45.00	46.00

Limited Duration Employees	FY 2015-16	FY 2016-17
Laborer Summer Student	9.00	10.00
Engineering Assistant Summer Student	2.00	1.00
Co-op	1.00	1.00
Total	12.00	12.00

Significant Budget Adjustments

The Plant Maintenance Operating Budget for FY 2016-17 is \$14 million, a \$328,00 or 2.3% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, wages increased due to the addition of a Maintenance Planner and the addition of standby pay for the electrical and instrumentation shops. These increases were offset by lower repair costs due to the completion of the cogeneration rebuild included in the FY 2015-16 Budget.

Plant Operations Division

OVERVIEW

This Division operates and maintains the District’s main treatment plant in Martinez. The treatment plant has a permitted capacity of 53.8 million gallons per day (mgd) and treats an average of 32.3 mgd. The treatment plant also produces 2.5 mgd of recycled water. This Division’s budget also includes the administrative services for the Plant Operations and Plant Maintenance Divisions.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 2 – Meet All Regulatory Requirements	<ul style="list-style-type: none"> - The treatment plant was recognized by the National Association of Clean Water Agencies (NACWA) for Peak Performance and was awarded the Platinum Award for the 17th consecutive year for full compliance with all federal, state and regional water quality standards. - The treatment plant met all Clean Air Act requirements. - The treatment plant met all Recycled Water Title 22 Regulations. - Assisted with preparations and testing for 129 Sewage Sludge Incinerator Regulations.
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Replaced and upgrade the treatment plant control system historian server. - Implemented complete backup capability for all treatment plant control system servers.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
NPDES Compliance	Zero violations
Title V Compliance	Zero violations
Recycled Water Title 22 Compliance	Zero violations
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 2 – Strive To Meet Regulatory Requirements	Strive to Achieve 100% Permit Compliance in Air, Water, Land and Other Regulations	Renew treatment plant NPDES Permit.	Product Quality
		Meet existing and known foreseeable future requirements for regulatory compliance.	Product Quality
		Actively manage greenhouse gas emissions in the most cost effective and responsible manner.	Community Sustainability
Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility	Manage Costs	Perform optimization studies of treatment plant and field operations to reduce costs.	Operational Optimization
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$5,067,083	\$5,202,600	\$5,161,486	(\$41,114)	-0.8%	\$94,403	1.9%
Employee Benefits	\$4,628,256	\$4,724,207	\$4,001,927	(\$722,280)	-15.3%	(\$626,329)	-13.5%
Chemicals	\$1,225,000	\$1,048,000	\$1,406,000	\$358,000	34.2%	\$181,000	14.8%
Utilities	\$3,845,700	\$3,175,700	\$3,210,700	\$35,000	1.1%	(\$635,000)	-16.5%
Repairs & Maintenance	\$56,200	\$43,700	\$50,200	\$6,500	14.9%	(\$6,000)	-10.7%
Hauling & Disposal	\$254,000	\$211,000	\$238,000	\$27,000	12.8%	(\$16,000)	-6.3%
Professional & Legal Services	\$4,000	\$4,000	\$4,000	\$0	0.0%	\$0	0.0%
Outside Services	\$44,500	\$21,000	\$74,000	\$53,000	252.4%	\$29,500	66.3%
Materials & Supplies	\$156,900	\$122,150	\$152,900	\$30,750	25.2%	(\$4,000)	-2.6%
Other Expenses	\$75,617	\$47,296	\$560,632	\$513,336	1085.4%	\$485,015	641.4%
Total	\$15,357,256	\$14,599,653	\$14,859,845	\$260,192	1.8%	(\$497,411)	-3.2%



Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Administrative Assistant	2.00	2.00
Administrative Services Supervisor	1.00	1.00
Associate Control Systems Engineer	2.00	2.00
Control Systems Technician	1.00	1.00
Deputy General Manager	1.00	1.00
Plant Operations Division Manager	1.00	1.00
Plant Operations Superintendent	1.00	1.00
Plant Operations Training Coordinator	1.00	1.00
Plant Operator I/II	2.00	1.00
Plant Operator III	6.00	5.00
Senior Engineer	1.00	1.00
Senior Plant Operator	13.00	15.00
Shift Supervisor	7.00	7.00
Total	39.00	39.00

Limited Duration Employees	FY 2015-16	FY 2016-17
Clerical Summer Student	1.00	1.00
Total	1.00	1.00

Significant Budget Adjustments

The Plant Operations Operating Budget for FY 2016-17 is \$14.9 million, a \$497,000 or 3.2% decrease over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, increases in chemical costs for the purchase of sodium hydroxide to meet new Section 129 Clean Air Act Regulations and the transfer of public agency fees from the Environmental and Regulatory Compliance Division were offset by the transfer of some costs to the Recycled Water Program and lower utility costs.

District Safety Program

OVERVIEW

The Safety Workgroup oversees and administers the District’s Safety Program. The primary objective of the Safety Program is to reduce injuries, accidents, and environmental impact while ensuring compliance. The Safety Workgroup achieves this by providing high quality training; comprehensive workplace evaluation; incident response; hazardous materials management from acquisition to disposal; and managing regulatory information.

Fiscal Year 2015-16 Accomplishments

This Division had several accomplishments related to the following District Goals:

Goal	Accomplishment
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	<ul style="list-style-type: none"> - Conducted 268 hours of classroom training on 34 safety subjects and completed 329 Safety Tailgates. - Developed a Regulatory Training Matrix and three-year Safety Training Schedule.
Goal 5 – Maintain a Reliable Infrastructure	<ul style="list-style-type: none"> - Worked closely with Capital Projects to provide design reviews, submittal reviews, contractor orientations, and construction safety oversight. - Eliminated the backlog of open safety actions items within the District Safety Committee.
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Removed over 10,000 lbs. of hazardous waste. - Conducted Emergency Preparedness Warden Training and evacuation drills.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Employee injury and illness lost time incident rate	Less than BLS California Sewage Treatment Facilities Rate
Operating expenditures as a percentage of operating budget	Greater than 90%
Percentage of performance evaluations completed on time	100%



Fiscal Year 2016-17 Strategic Initiatives

This Division will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 – Provide Exceptional Customer Service	Improve Interdepartmental Collaboration	Foster employees' understanding of District operations and their role in our success.	Customer Satisfaction
		Increase internal partnerships.	Employee and Leadership Development
Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce	Enhance Relationship with Employees and Bargaining Units	Cultivate a positive work culture and promote teamwork.	Employee and Leadership Development
	Meet or Exceed Industry Safety Standards	Achieve consistent improvement on State of California and Bay Area Industry Injury Rate.	Employee and Leadership Development
		Enhance the safety culture through improved training and communications.	Employee and Leadership Development
Goal 5 – Maintain a Reliable Infrastructure	Protect District Personnel and Assets from Threats and Emergencies	Enhance our capability to mitigate, prepare, respond, and recover from emergencies.	Enterprise Resiliency
		Evaluate and implement appropriate improvements to security program to meet new or evolving threats.	Enterprise Resiliency
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Evaluate Business Processes and Optimize Business Operations	Perform business process mapping and re-engineering.	Operational Optimization

Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$216,956	\$231,400	\$349,884	\$118,484	51.2%	\$132,928	61.3%
Employee Benefits	\$221,760	\$212,170	\$312,759	\$100,589	47.4%	\$90,999	41.0%
Repairs & Maintenance	\$77,200	\$77,200	\$71,000	(\$6,200)	-8.0%	(\$6,200)	-8.0%
Hauling & Disposal	\$10,250	\$10,250	\$10,250	\$0	0.0%	\$0	0.0%
Professional & Legal Services	\$5,000	\$5,000	\$2,500	(\$2,500)	-50.0%	(\$2,500)	-50.0%
Outside Services	\$153,250	\$170,500	\$87,000	(\$83,500)	-49.0%	(\$66,250)	-43.2%
Materials & Supplies	\$38,500	\$38,500	\$34,500	(\$4,000)	-10.4%	(\$4,000)	-10.4%
Other Expenses	\$57,795	\$57,795	\$45,575	(\$12,220)	-21.1%	(\$12,220)	-21.1%
Total	\$780,711	\$802,815	\$913,468	\$110,653	13.8%	\$132,757	17.0%

Personnel Requirements

Regular Status Employees	FY 2015-16	FY 2016-17
Operations Safety Specialist	1.00	2.00
Safety Officer	1.00	1.00
Total	2.00	3.00

Significant Budget Adjustments

The Safety Program Budget for FY 2016-17 is \$913,468, a \$133,000 or 17% increase over last year. Outside of the overall changes in wages and benefits, discussed elsewhere, the main driver for the change is the transfer of a Safety Specialist position from the Collection System Operations Division.



Recycled Water Program

OVERVIEW

This Program draws resources from several Divisions to provide support for the production and distribution of recycled water to Zone 1 customers, commercial customers, construction contractors, and residential customers. The Planning and Development Services Division provide planning for the existing recycled water system and planned expansions, including the Satellite Water Recycling Facility (SWRF). The Environmental and Regulatory Compliance Division manages the residential recycled water fill station and oversees the regulatory requirements for the recycled water program. The Plant Operations and Plant Maintenance Divisions operate and maintain the recycled water facility and the Collection System Division maintains the recycled water distribution system.

Fiscal Year 2015-16 Accomplishments

This Program had several accomplishments related to the following District Goal:

Goal	Accomplishment
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	<ul style="list-style-type: none"> - Developed a Recycled Water Policy. - Developed a wholesale rate for recycled water. - Served more than 55,000 customers and delivered over 11 million gallons of recycled water at our residential fill station. - Connected 14 new businesses to the recycled water distribution system for landscape irrigation. - Completed the first phase of the Wholesale Opportunity of Recycled Water Study. - Completed memoranda of understanding with Diablo Country Club on a SWRF for 0.5 mgd and developing an agreement for the District to own and operate the SWRF. - Negotiated terms for a future agreement with Contra Costa Water District for the District to supply 3-5 mgd of recycled water to serve a portion of the cooling water demand at the Shell Refinery.

Fiscal Years 2016-17 Key Metrics

Metric	FY 2016-17 Target
Recycled Water Title 22 Compliance	Zero violations
Total gallons of recycled water distributed to external customers	Greater than 240 million gallons per year
Maximum residential fill station customer wait time	15 minutes
Gallons of recycled water distributed at the residential fill station	Greater than 14 million gallons per year
Gallons of recycled water distributed at truck fill program	Greater than 4 million gallons per year
Operating expenditures as a percentage of operating budget	Greater than 90%

Fiscal Year 2016-17 Strategic Initiatives

This Program will support the following District Goals and Strategies:

Goal	Strategy	Initiative	EUM Attribute
Goal 1 - Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Provide high quality customer service.	Customer Satisfaction
Goal 2 - Strive to Meet Regulatory Requirements	Strive to Achieve 100% Permit Compliance in Air, Water, Land and Other Regulations	Meet existing regulations and plan for future regulations.	Product Quality
		Foster relationships with regulatory agencies.	Stakeholder Understanding and Support
Goal 6 – Embrace Technology, Innovation and Environmental Sustainability	Augment the Region’s Water Supply	Explore partnering opportunities (e.g. Contra Costa Water District and East Bay Municipal Utility District).	Stakeholder Understanding and Support
		Develop a SWRF Program.	Water Resource Sustainability



Budget Overview By Expense Category

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget	Budget to Projected Variance	Percent Variance	Budget to Budget Variance	Percent Variance
Salaries & Wages	\$0	\$207,800	\$763,147	\$555,347	267.3%	\$763,147	0.0%
Employee Benefits	\$0	\$189,000	\$477,148	\$288,148	152.5%	\$477,148	0.0%
Chemicals	\$0	\$74,000	\$84,000	\$10,000	13.5%	\$84,000	0.0%
Utilities	\$0	\$160,000	\$175,000	\$15,000	9.4%	\$175,000	0.0%
Repairs & Maintenance	\$0	\$6,800	\$30,000	\$23,200	341.2%	\$30,000	0.0%
Professional & Legal Services	\$0	\$500	\$14,000	\$13,500	2700.0%	\$14,000	0.0%
Outside Services	\$0	\$120,000	\$202,500	\$82,500	68.8%	\$202,500	0.0%
Materials & Supplies	\$0	\$6,400	\$5,900	(\$500)	-7.8%	\$5,900	0.0%
Other Expenses	\$0	\$45,600	\$50,024	\$4,424	9.7%	\$50,024	0.0%
Total	\$0	\$810,100	\$1,801,719	\$991,619	122.4%	\$1,801,719	0.0%

Personnel Requirements

Several District Divisions support the Recycled Water Program personnel for the Recycled Water Program are shown in their respective Divisions, and total 3.5 full time equivalents. A portion of their labor costs, as appropriate to their time spent on the Program, are included in the Recycled Water Budget. In addition, the Budget includes funding for eight District temporary staff to manage the residential fill station.

Regular Status Employees	FY 2015-16	FY 2016-17
Program Manager	-	0.50
Engineering and Technical Services Department Staff	-	2.00
Operations Department Staff	-	1.00
Total	-	3.50

Limited Duration Employees	FY 2015-16	FY 2016-17
Fill Station Temporary	-	8.00
Total	-	8.00

Significant Budget Adjustments

The Recycled Water Program Operating Budget for FY 2016-17 is \$1.8 million. This is a new budget for FY 2016-17 and includes the transfer of costs from Collection System Operations, Plant Maintenance, Plant Operations, Environmental and Regulatory Compliance, and Planning and Development Services to fund treatment and production, distribution, recycled water fill stations, planning for satellite facilities and other recycled water opportunities.

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The District has self-insured a portion of its liability and property risks since July 1, 1986, when the Board approved the establishment of the Self Insurance Fund (SIF). The District currently self-insures general and auto liability risks up to \$500,000 per occurrence and purchases a \$15 million excess liability insurance policy above that retention.

At this time, the District does not purchase insurance coverage for earthquake or flood losses because insurance programs currently available in California are very expensive for the scope and limits of coverage provided. As a result, the District self-insures these risks.

Fund Allocation

In 1994, the Government Accounting Standards Board issued statement No. 10 (GASB-10) which established requirements on how public agencies must fund their self-insured risks. To assure compliance with GASB-10, the District restructured the SIF into three sub-funds. Each of the three sub-funds was established to pay for specific losses and expenses.

Table 1 presents a recent financial history and projection of the SIF and shows the FY 2016-17 SIF budget. The SIF revenue for FY 2016-17 is projected to be \$1,020,401, and expenses are projected to be \$948,000, resulting in net SIF reserves of \$6,502,132. The budgeted revenues include the allocation of \$920,000 from the FY 2016-17 O&M Budget to the SIF.

Sub-Fund A: Actuarially-Based Risks

Sub-Fund A is used to pay claims and expenses within the District's self-insured liability retention. Claims in excess of this retention are covered by the excess insurance policy that renews annually on July 1.

Under the requirements of GASB-10, risks that can be actuarially studied must be funded based on an actuarial study performed at least every two years. General liability and automobile liability risks are readily studied throughout the insurance and self-insurance industry to project funding levels for future losses. The District obtained an actuarial review of its self-insured general liability and automobile liability risks in October 2014. The next actuarial report will be performed in August 2016 using loss data through June 30, 2016.

The Board established a policy to maintain the Sub-Fund A reserve at three times the amount of the District's self-insured retention. The current \$500,000 retention requires a \$1.5 million reserve. This reserve is used to pay claims and expenses throughout the year and is replenished the following fiscal year.

Table 2 shows budgeted revenue for FY 2016-17 of \$5,868 with expenses of \$225,000 for a reduction of \$219,132. This amount will be transferred from Sub-Fund C in order to maintain the minimum reserve at \$1.5 million.

Sub-Fund B: Non-Actuarially-Based Risks

Sub-Fund B was used to pay claims and expenses for liability losses that could not be actuarially evaluated and/or were not covered by the excess liability insurance policy. This included employment practices claims and certain types of pollution claims.

Employment practices and pollution claims are infrequent, are usually expensive and often take longer to resolve than other types of claims. Since this makes accurate loss forecasting difficult, GASB does not require an actuarial study for these risks. Given these factors and the absence of insurance coverage for some of these risks, the District had maintained this fund with a \$2.4 million reserve.

At the November 17, 2014, special meeting, the Board chose to simplify reserving for all risks that do not require GASB-10 compliance by consolidating all other reserves into a single fund. The Board also wanted to make sure that funds were reserved for catastrophic losses or emergency response. In order to meet the joint goals of consolidating reserves and establishing a catastrophic loss fund, Sub-Fund B has been retired with all reserves for these risks transferred to Sub-Fund C. As a result, Table 3 shows a FY 2015-16 ending balance of \$0 and no allocation for FY 2016-17.

Sub-Fund C: Non-GASB 10 Risks

This Sub-Fund C has historically covered Risk Management program expenses including insurance premiums, self-insured property losses, potential losses from uninsurable risks, and the costs of initiating claims and lawsuits against others. As noted above, this fund now includes reserves for non-GASB 10 risks and catastrophic losses.

The Board established a policy to maintain this reserve at \$5 million. This reserve is used to pay claims and expenses throughout the year and is replenished the following fiscal year. This fund also receives the annual O&M contribution and then re-allocates funds needed to maintain the required reserve in Sub-Fund A.

Table 4 shows budgeted revenue for FY 2016-17 of \$1,014,533 which includes a transfer from the O&M Fund of \$920,000. The expenses for FY 2016-17 are \$723,000, or \$291,533 less than revenues. Most of this surplus (\$219,132) will be transferred to Sub-Fund A, leaving the ending reserves at the policy level of \$5 million.

Figure 1 shows the history of revenue, expense, and reserve balance for entire SIF as a whole and uncommitted reserve by sub-fund. Figure 2 shows the history of loss payments in Sub-Fund A for General and Automobile risks. Figure 3 shows the transfer of Fund B reserves to Sub-Fund C. Figure 4 shows the reserve for Sub-Fund C which includes insurance premium history.

Tables and Figures

Table 1 - Self Insurance Fund (SIF) July 1, 2011 – June 30, 2017

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Actual	FY 2014-15 Actual	FY 2015-16 Projected	FY 2016-17 Budget
Revenues						
SIF Allocation from O&M Fund	\$850,000	\$850,000	\$600,000	\$650,000	\$1,500,000	\$920,000
Insurance Allocation from HHW	\$24,878	\$21,183	\$21,236	\$21,187	\$71,500	\$75,000
Subrogation Recovery	\$1,660	\$1,349,322	\$23,212	\$165,950	\$1,313	\$0
Interest Income	\$19,436	\$15,269	\$10,180	\$10,834	\$22,826	\$25,401
Total Revenue	\$895,974	\$2,235,774	\$654,628	\$847,971	\$1,595,639	\$1,020,401
Expenses						
Claims Adjusting	\$0	\$1,218,301	\$766	\$219,377	\$0	\$2,000
Insurance Consulting	\$0	\$5,000	\$0	\$5,000	\$0	\$6,000
Loss Payments	\$72,605	\$440,991	\$115,501	\$280,619	\$850,000	\$200,000
Legal Services	\$304,672	\$266,900	\$200,591	\$148,500	\$74,000	\$75,000
Technical Services	\$14,803	\$24,856	\$42,167	\$207,793	\$55,000	\$85,000
Insurance Premiums	\$418,769	\$424,419	\$499,713	\$472,230	\$529,892	\$580,000
Total Expenses	\$810,849	\$2,380,467	\$858,738	\$1,333,519	\$1,508,892	\$948,000
Revenue Over Expense	\$85,125	(\$144,693)	(\$204,110)	(\$485,548)	\$86,747	\$72,401
Reserves						
Beginning of Year	\$4,742,210	\$4,827,335	\$4,682,642	\$4,478,532	\$3,992,984	\$6,429,731
Reserve Policy Transfer	\$0	\$0	\$0	\$0	\$2,350,000	\$0
Revenue over Expense	\$85,125	(\$144,693)	(\$204,110)	(\$485,548)	\$86,747	\$72,401
End of Year Reserves	\$4,827,335	\$4,682,642	\$4,478,532	\$3,992,984	\$6,429,731	\$6,502,132
Uncommitted Reserves						
Actuarial Reserves - GASB 10 (Fund A)	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,500,000	\$1,500,000
Non- Actuarial Reserves - GASB 10 (Fund B)	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$0	\$0
Non-GASB 10 Reserves (Fund C)	\$1,427,335	\$1,282,642	\$1,078,532	\$592,984	\$4,929,731	\$5,002,132
Total Reserves	\$4,827,335	\$4,682,642	\$4,478,532	\$3,992,984	\$6,429,731	\$6,502,132
Change in Reserves	\$85,125	(\$144,693)	(\$204,110)	(\$485,548)	\$2,436,747	\$72,401

Table 2 - SIF - Sub-Fund A–Actual FY 2014-15, Projected FY 2015-16 and Budgeted FY 2016-17

Sub-Fund A: GASB-10 Actuarially Based Risks General Liability and Automobile Liability

	FY 2014-15 Actual	FY 2015-16 Projected	FY 2016-17 Budget
Actuarial Reserves - GASB 10 - Beginning of Year	\$1,000,000	\$1,000,000	\$1,500,000
Revenues			
O&M	-	\$1,000,000	-
Subrogation Recovery	\$165,950	-	-
Interest	\$2,354	\$5,257	\$5,868
Total Revenues	\$168,304	\$1,005,257	\$5,868
Expenses			
Losses	\$280,619	\$850,000	\$100,000
Legal	\$48,519	\$65,000	\$50,000
Technical	\$207,793	\$55,000	\$75,000
Total Expenses	\$536,931	\$970,000	\$225,000
Revenue Over Expense	(\$368,627)	\$35,257	(\$219,132)
Reserves			
Transfer (to)/from Sub-Fund C	\$368,627	\$464,743	\$219,132
Total Reserves Projected End of Year	\$1,000,000	\$1,500,000	\$1,500,000

Note: Sub-Fund A was increased from \$1.0M to \$1.5M in FY 2015-16 as part of the Reserve Policy adopted by the Board (BP 017). Reserve is for three occurrences.



Table 3 - SIF - Sub-Fund B–Actual FY 2014-15, Projected FY 2015-16 and Budgeted FY 2016-17

Sub-Fund B: GASB-10 Non-Actuarially Based Risks Catastrophic and Self-Insured Risks

	FY 2014-15 Actual	FY 2015-16 Projected	FY 2016-17 Budget
Beginning Reserves	\$2,400,000	\$2,400,000	-
Revenues			
O&M	-	-	-
Recovery	-	-	-
Interest	\$5,649	\$17,522	-
Total Revenues	\$5,649	\$17,522	-
Expenses			
Losses	-	-	-
Legal	\$60,880	\$4,000	-
Technical	-	-	-
Total Expenses	\$60,880	\$4,000	-
Revenue Over Expense	(\$55,231)	\$13,522	-
Reserves			
Transfer (to)/from Sub-Fund C	\$55,231	(\$13,522)	-
Transfer (to)/from Sub-Fund C	-	(\$2,400,000)	-
Total Reserves Projected End of Year	\$2,400,000	\$-	\$-

Note: Sub-Fund B was transferred to Sub Fund C Emergency Reserves.

Table 4 - SIF - Sub-Fund C–Actual FY 2014-15, Projected FY 2015-16 and Budgeted FY 2016-17

Sub-Fund C: GASB-10 Risks – Risk Management Program, Insurance Premiums and Self-Insured Property Losses

	FY 2014-15 Actual	FY 2015-16 Projected	FY 2016-17 Budget
Beginning Reserves	\$1,078,532	\$592,984	\$4,929,731
Revenues			
O&M	\$650,000	\$500,000	\$920,000
Subrogation Recovery	-	\$1,313	-
Insurance Recovery from HHW Partners	\$21,187	\$71,500	\$75,000
Interest	\$ 2,831	\$47	\$19,533
Total Revenues	\$674,018	\$572,860	\$1,014,533
Expenses			
Losses	-	-	\$100,000
Legal	\$39,101	\$5,000	\$25,000
Technical	-	-	\$10,000
Insurance Premiums	\$472,230	\$529,892	\$580,000
Insurance Consulting Services	\$5,000	-	\$6,000
Claims Adjustment	\$219,377	-	\$2,000
Total Expenses	\$735,708	\$534,892	\$723,000
Revenue Over Expense	(\$61,690)	\$37,968	\$291,533
Reserves			
Transfer (to)/from Sub-Fund A	(\$368,627)	(\$464,743)	(\$219,132)
Transfer (to)/from Sub-Fund B	-	\$2,400,000	-
Transfer (to)/from Sub-Fund B	(\$55,231)	\$13,522	-
Reserve Policy Transfers	-	\$2,350,000	-
Total Reserves Projected End of Year	\$592,984	\$4,929,731	\$5,002,132

Note: Sub-Fund C was increased to \$5.0M in FY 2015-16 as part of the Reserve Policy adopted by the Board (BP 017).

Figure 1 – History of Revenue, Expense and Reserve Balance

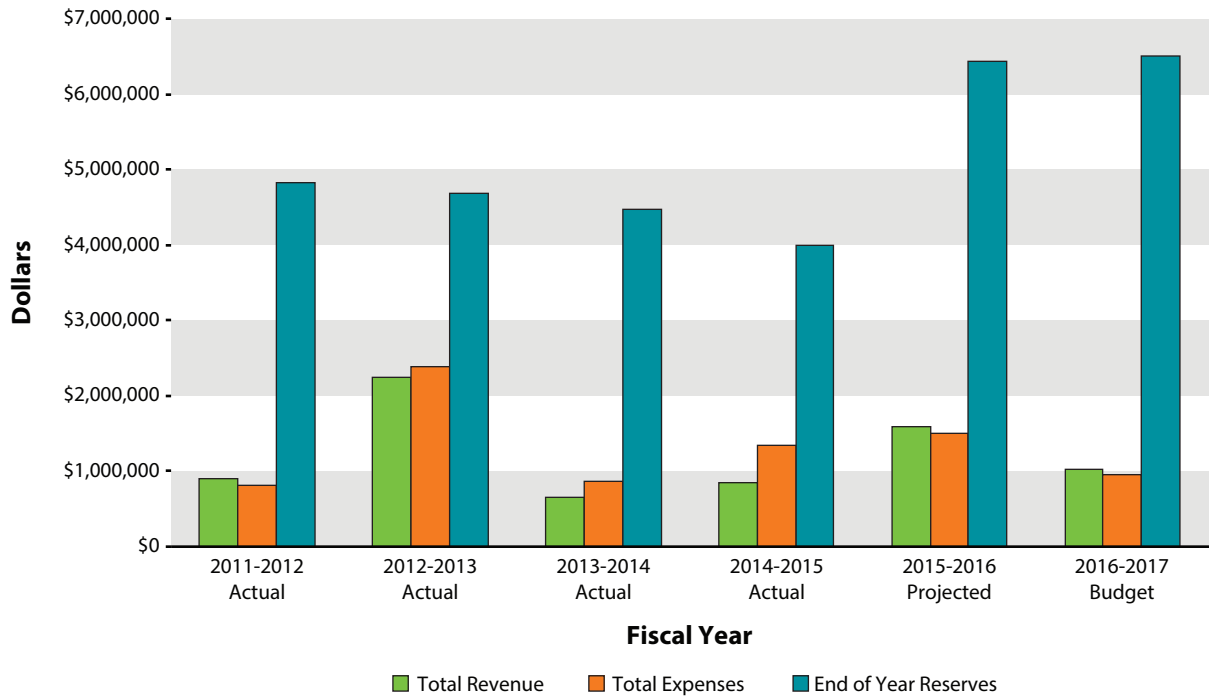


Figure 2 – History of Loss Payment & Insurance Premiums

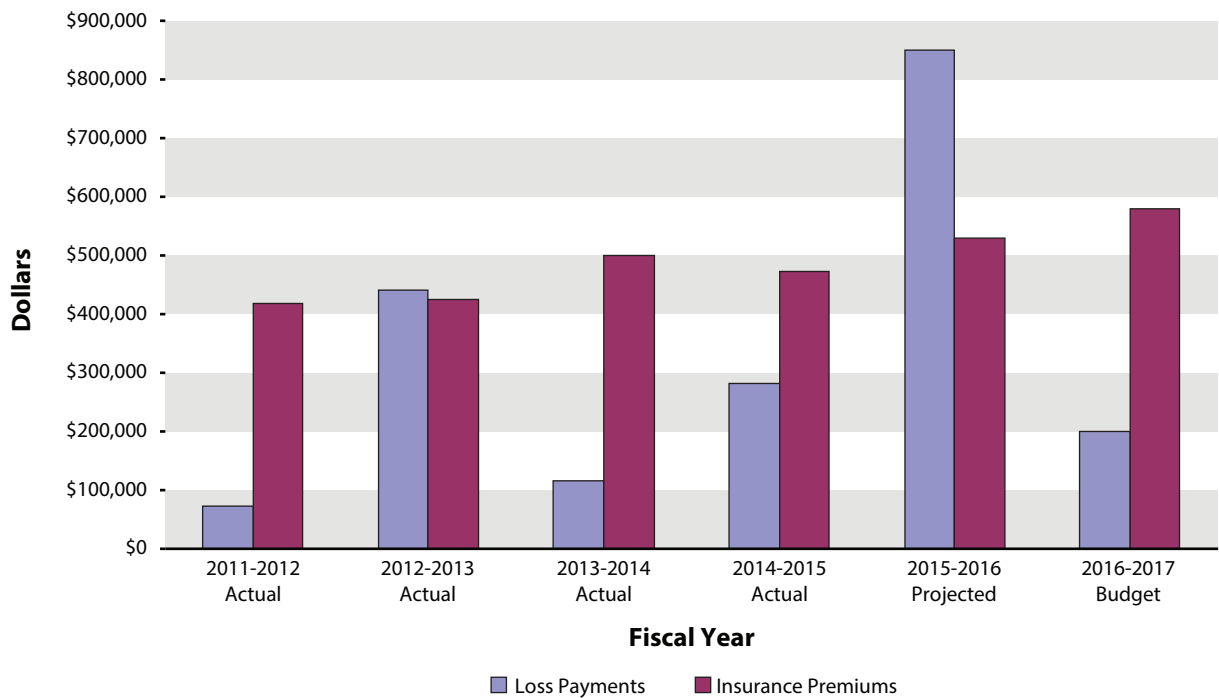


Figure 3 – Reserves by Sub-Fund

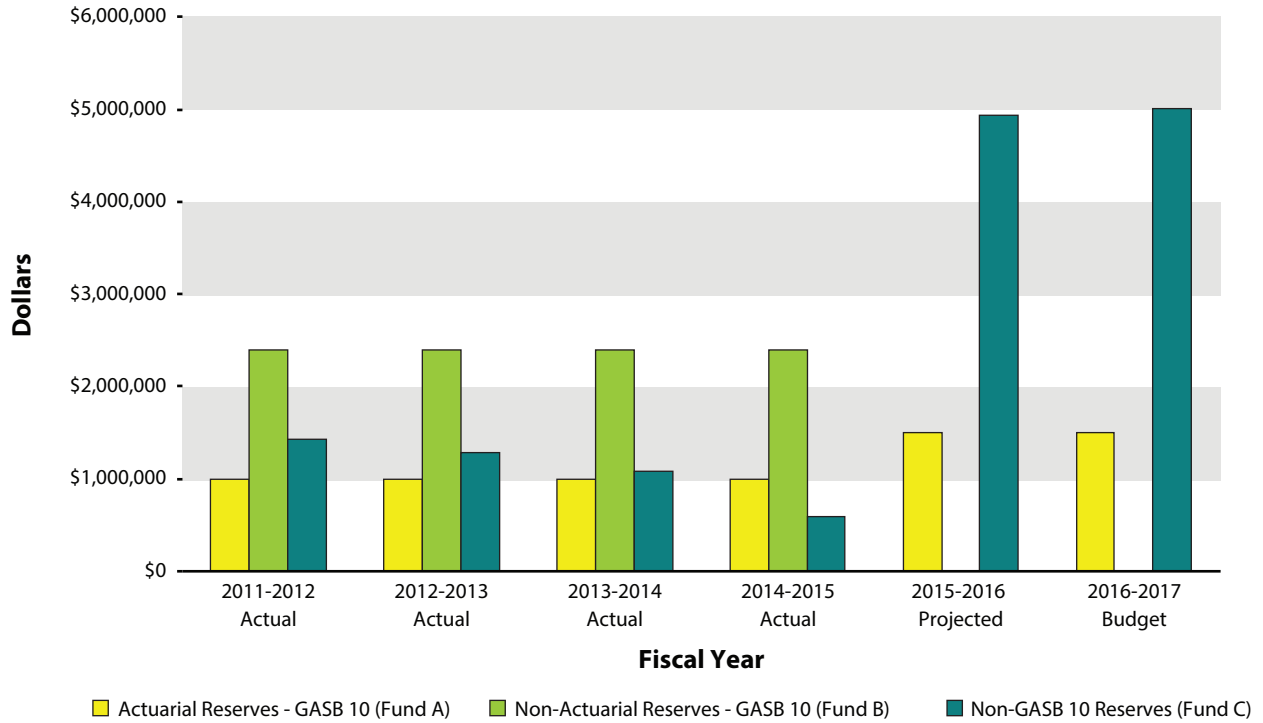
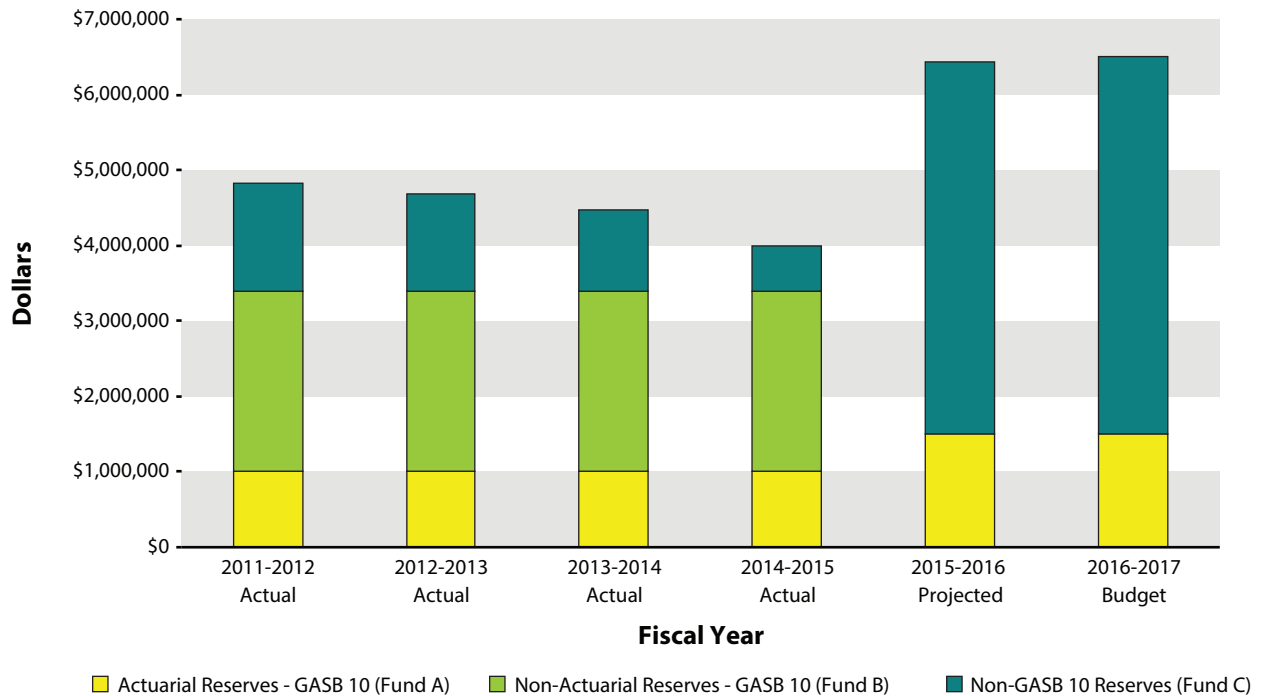


Figure 4 – History of Reserves



Capital Improvement Program

Summary

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 or renovation activities that add value to the District's fixed assets (pipelines, buildings, facilities, and equipment) or significantly extend their useful life.

The District's Capital Improvement Budget (CIB) provides a detailed presentation of the project cost estimates proposed for the first year of the 10-year plan beginning July 1, 2016. For FY 2016-17, the CIB shows planned expenditures of approximately \$36.8 million from the Sewer Construction Fund. These expenditures are for planning, design, and construction of capital projects within four CIB programs: (1) Collection System; 2) Treatment Plant; 3) General Improvements; and 4) Recycled Water. The total estimated funding required for all current projects shown in the FY 2016-17 CIB is \$167.6 million, which includes approximately \$50.9 million of prior expenditures and \$79.8 million in future fiscal years, as shown below:

Fiscal Year 2016-17 Capital Improvements Budget per Program

Estimated Expenditures

Program	Budgeted to date	Prior Fiscal Years	FY 16/17	Future FYs	Project Total
Collection System	\$34,197,100	\$16,872,230	\$17,925,105	\$29,845,032	\$64,642,367
Treatment Plant	\$28,414,100	\$26,241,377	\$13,125,000	\$34,820,723	\$74,178,100
General Improvements	\$7,876,000	\$6,528,187	\$3,808,651	\$14,047,162	\$24,384,000
Recycled Water	\$1,855,000	\$1,342,647	\$500,000	\$1,127,353	\$2,970,000
CIB Contingency	\$0	\$0	\$1,450,000	\$0	\$1,450,000
Totals	\$72,342,200	\$50,984,441	\$36,808,756	\$79,840,270*	\$167,633,467

*Approval of FY 2016-17 projects will commit approximately \$30.4 million in future fiscal years.

By adopting the CIB, the Board of Directors authorizes staff to pursue work on specifically identified projects in the Treatment Plant, Collection System, General Improvements, and Recycled Water Programs. In addition, The Board has authorized firm individual project budgets and delegated authority to implement the projects as approved under the Capital Improvement Plan (CIP) Authorization Limits.

The 10-year CIP provides the basis for project scheduling, staffing, and long-range financial planning. The CIP also serves as the framework for capital fee decisions. The total estimated expenditures proposed under the FY 2016-17 CIP is \$413.4 million and has not changed from last fiscal year. This budget will likely be revised and updated once the Comprehensive Wastewater Master Plan (CWMP) is completed early next year.

Acronyms and Abbreviations in the CIB/CIP

Acronyms and Abbreviations in the CIB/CIP	
AB	Assembly Bill
ADA	Americans with Disabilities Act
ADWF	Average Dry Weather Flow
AFY	Acre-Feet per Year
A/N	Aeration and Nitrification
ARB	Air Resources Board
ArcSNAP	Sewer Network Analysis Program
ASB	Auxiliary Steam Boiler
AWWF	Average Wet Weather Flow
B&G	Buildings and Grounds
BAAQMD	Bay Area Air Quality Management District
BACWA	Bay Area Clean Water Agencies
CAA	Clean Air Act
CAD	Contractual Assessment District
CAFR	Comprehensive Annual Financial Report
CalOSHA	California Occupational Health and Safety Administration
CARB	California Air Resources Board
CBC	California Building Code
CASA	California Association of Sanitation Agencies
CCCERA	Contra Costa County Employees Retirement Association
CCCSD	Central Contra Costa Sanitary District
CCTV	Closed Circuit TV
CCWD	Contra Costa Water District
CEC	California Energy Commission
CECs	Constituents of Emerging Concern
CIB	Capital Improvement Budget
CIP	Capital Improvement Plan – covers 10 years
CIPP	Cured-in-Place Pipe
CNWS	Concord Naval Weapons Station
Co-Gen	Cogeneration
CO2	Carbon Dioxide
COP	Certificates of Participation
CS	Collection System
CSO	Collection System Operations
CSOD	Collection System Operations Division
CWMP	Comprehensive Wastewater Master Plan
DAF	Dissolved Air Flotation

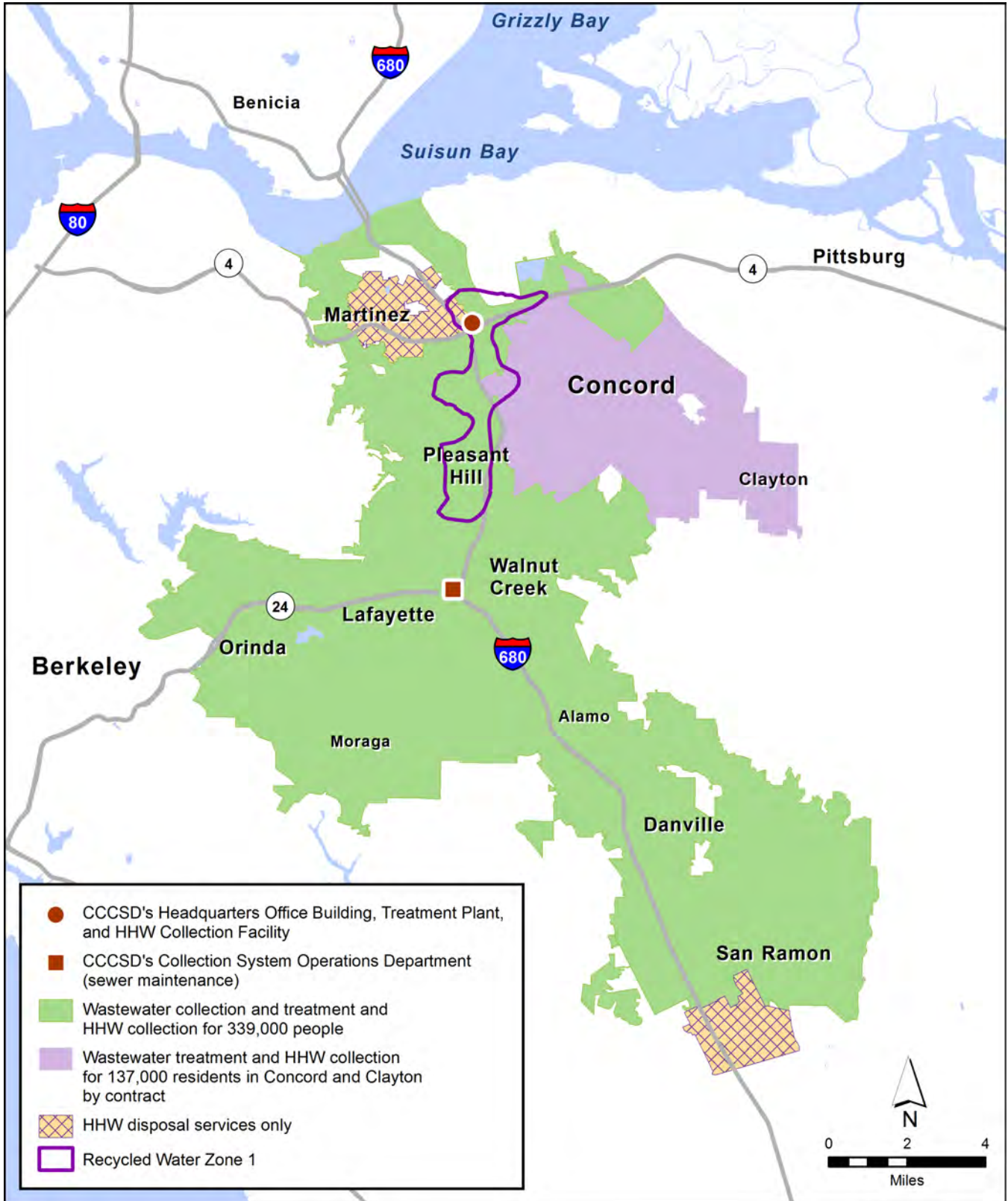
Acronyms and Abbreviations in the CIB/CIP	
DI	De-Ionized or Discrete Input
District	Central Contra Costa Sanitary District
DP	District Project
DTSC	Department of Toxic Substances
DWR	Department of Water Resources
EIR	Environmental Impact Report
Elec	Electrical
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERP	Enterprise Resource Planning
FCD	Contra Costa County Flood Control and Water Conservation District
Fund	Sewer Construction Fund
FY	Fiscal Year – July 1 through June 30
GDI	Geographic Data Integration
GHG	Greenhouse Gas
GI	General Improvements Program
GIS	Geographic Information Systems
GPS	Global Positioning System
HOB	Headquarters Office Building
HTE	SunGard Program
HVAC	Heating, Ventilating, and Air Conditioning
IEEE	Institute of Electrical and Electronics Engineers
IFCO	Industrial Furnace Company
I/O	Input and Output
IT	Information Technology
LT	Long Term
M1	Manhole 1
MCC	Motor Control Center
MGD	Million Gallons per Day
MHF	Multiple Hearth Furnace
NACWA	National Association of Clean Water Agencies (formerly AMSA)
NPDES	National Pollutant Discharge Elimination System
NFPA	National Fire Protection Agency
O&M	Operations & Maintenance
PE	Primary Effluent
PLC	Programmable Logic Controller
PG&E	Pacific Gas & Electric Company



Acronyms and Abbreviations in the CIB/CIP	
Ph	Phase
POB	Plant Operations Building
POD	Plant Operation Division
PPE	Personal Protective Equipment
PS	Pumping Station
PTW	Power Tools for Windows (software program)
RFP	Request for Proposal
RWQCB	Regional Water Quality Control Board
RUE	Residential Unit Equivalent
RW or ReW	Recycled Water

Acronyms and Abbreviations in the CIB/CIP	
SCADA	Supervisory Control and Data Acquisition
SCB	Solids Conditioning Building
SCF	Sewer Construction Fund
SSC	Sewer Service Charge
SSMP	Sewer System Master Plan
SSO	Sanitary Sewer Overflow
TP	Treatment Plant
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
v	volt

CIP Location Map



CIP ACCOMPLISHMENTS

- **Completion of the Primary Treatment Renovation Project:** Construction of this project started in July 2013 with a total estimated project budget of \$14.9 million. This project focused on renovation work and improvements to the treatment plant primary process, which includes grit and scum handling, primary sludge, primary effluent pumping, infrastructure rehabilitation, electrical, and controls improvements. The major items completed include replacement of the grit handling system, replacement of the scum thickener in the SCB, refurbishment of two primary effluent pumps with new variable frequency drives, new baffles in the primary sedimentation tanks, and replacement of the primary control valve. Other primary tank renovations include new scum skimmers and drives, sprays, process piping, chain drives, sludge flight drive shafts and bearings, repairing concrete, electrical replacement, and improving the level control system.
- **Started Construction of the Pleasant Hill Grayson Creek Trunk Sewer Project:** The design of this project started in 2012 and has been coordinated with the Pleasant Hill, Martinez, United States Department of the Interior Bureau of Reclamation, and other utility agencies in the project vicinity. The total estimated project budget is \$13.7 million and proposes to install approximately 10,000 feet of sewers. The project will also include replacement of the truck sewer on Pleasant Hill Road (previously known as the PH Corridor Project). This project will allow for future main sewer replacement in Pleasant Hill and abandon several trunk sewers along Grayson Creek.
- **Continuing Main Sewer Replacement and Completed the Lafayette Phase 9 and Martinez Phase 4 Sewer Renovation Projects:** These projects combined for a total of approximately 16,800 of sewer replacement and rehabilitation, of which most were old 6-inch vitrified clay main sewers. Construction comprised of sewer replacement, new manholes, and other infrastructure improvements on public-right-of-way and easements in Lafayette and Martinez. Trenchless technology was utilized where possible for cost effectiveness and to minimize construction impacts.
- **Completed Construction of the Wet Scrubber Caustic Injection Project to Help Meet Regulatory Requirements:** The furnace wet scrubbers are a key component to controlling air emissions. Changes in the Clean Air Act Section 129 regulations, effective March 21, 2016, include new air emission and scrubber water pH limits. The caustic injection system constructed under this project will help the existing furnace scrubbers meet the regulations.
- **Pre-purchased Major Electrical Equipment and Bid the Substation 16 Switchgear Replacement Project:** The existing electrical switchgear that powers the Headworks Facility and influent pumps at the treatment plant requires immediate replacement. The District has issued a pre-purchase agreement to procure the switchgear and is currently in the process of awarding a construction contract for the installation of the replacement switchgear.



CIB-Project Prioritization

Each capital project addresses one or more of the following goals:

- Strive to meet regulatory requirements
- Be a fiscally sound and effective water sector utility
- Provide exceptional customer service
- Protect public health and the environment
- Maintain and replace existing assets
- Embracing a policy of sustainability for the responsible use of existing resources
- Accommodate planned future growth

The projects included in the FY 2016-17 CIB have been prioritized to ensure the best use of available, approved funds. Each project was evaluated using a District specific prioritization scoring system that includes input from all stakeholders within the Operations and Engineering Departments. The prioritization scoring and ranking system uses existing District prioritization strategies, including guidelines from the Water Environment Research Foundation (WERF), and prioritization procedures similar to other NACWA member agencies.

Each project is assigned a priority ranking of **Critical, Very High, High, or Medium** based on the scoring. The scores take into consideration the “triple-bottom-line” of social, environmental, and financial benefits of the project and their applicability to the District’s Mission and Strategic Goals.

The following criteria are considered in prioritizing projects:

Criteria
Essential Commitments
Complies with Regulatory Requirements and Mandates
Meets Commitment with Outside Agency or Existing Contract
Reduces Potential Health or Safety Hazards
Implements Board of Director’s Policy/Priority
Increases Capacity to Meet Projected Build-out
Project Benefits
Impacts Project Phasing or Implementation Schedule for Other Projects
Optimizes Capital Expenditures
Reduces Operations and Maintenance Costs
Reduces Social Impacts
Increases Sustainable Use of Natural or Existing Resources
Reduces Environmental Impacts
Supports Timely Adoption of Technology Improvements
Operational Reliability
Consistent with Asset Management Policies
Improves Reliability and System Performance
Improves Facility-Wide Resiliency



CIB-Major Project Emphasis

Although the CIB is comprised of funding estimates for many individual projects, each year there are several major projects that together account for a majority of total estimated capital expenditures. In FY 2016-17, the emphasis will be on 13 large projects (typically those projects over \$500,000), which together account for \$26,498,238 or 72% of the total estimated expenditures. Each major project is summarized, including FY 2016-17 estimated expenditures:

1. Comprehensive Wastewater Master Plan

FY 2016-17: \$2,100,000	Estimated total project cost:	\$4,700,000
	Estimated completion date:	April 2017

This project is developing the comprehensive master plan for the treatment plant and collection system to update the 10-year CIP and budgets, including condition assessments, collection system dynamic model, filter plant, in coordination with asset management, as well as planning for the next 20 years.

2. Pleasant Hill-Grayson Creek Trunk Sewer (includes PH Corridor Project)

FY 2016-17: \$8,900,000	Estimated total project cost:	\$13,700,000
	Estimated completion date:	August 2017

This project involves installing approximately 10,000 feet of 18- through 24 inch relief sewers and diverting the sewage away from the deficient sewers and for future renovation needs. It started in Spring 2016 and is scheduled to be completed in Summer 2017.

3. Lafayette Sewer Renovations – Phase 10

FY 2016-17: \$2,250,238	Estimated total project cost:	\$3,530,000
	Estimated completion date:	January 2017

This project will replace or rehabilitate approximately 9,000 feet of existing sewer pipelines and associated facilities in the City of Lafayette.

4. North Orinda Sewer Renovations – Phase 6

FY 2016-17: \$2,154,000	Estimated total project cost:	\$3,312,500
	Estimated completion date:	February 2017

This project will replace or rehabilitate approximately 8,700 lineal feet of existing sewer mains and associated facilities in the Orinda.

5. Pump and Blower Seismic Upgrades

FY 2016-17: \$2,900,000	Estimated total project cost:	\$5,953,000
	Estimated completion date:	December 2017

This project is part of the District's seismic improvement plan based on the Treatment Plant Seismic Vulnerability Assessment. The project will retrofit the Pump and Blower Building to be in line with current seismic design standards.

6. Substation 16 Switchgear Replacement

FY 2016-17: \$2,144,000	Estimated total project cost:	\$2,644,000
	Estimated completion date:	August 2017

The electrical switchgear serving the Headworks (Substation 16) will be replaced during the next fiscal year. Work includes removal of the existing switchgear, building modifications, and support facilities necessary for the new installation.

7. Headwork’s Screening Project

FY 2016-17: \$1,600,000	Estimated total project cost:	\$8,400,000
	Estimated completion date:	March 2018

This project will replace the existing climber screens with multi-rake fine screens and construct a new screenings removal system and other improvements to the Treatment Plant Headworks facility.

8. Information Technology Development

FY 2016-17: \$900,000	Estimated total project cost:	\$9,400,000
	Estimated completion date:	June 2024

This project provides funding for the District’s computer and telecommunication technology needs and implementation of the IT Master Plan.

9. Asset Management Program Development

FY 2016-17: \$800,000	Estimated total project cost:	\$2,700,000
	Estimated completion date:	July 2018

The District is developing a CWMP that aims to optimize the lifecycle of all assets to deliver high quality and reliable services in a sustainable manner for customers with an acceptable level of risk. Implementation will occur over several years and will include such tasks as standardizing and completing the asset register, adding critical treatment plant infrastructure to the GIS, consolidating CCTV databases, and documenting asset management processes and procedures, and a comprehensive plan. Specialty tasks utilizing outside assistance include utility locating and condition assessments, and training Plant Maintenance staff to develop a reliability centered maintenance program, assistance with business process review, and review of the Comprehensive Asset Management Plan.

10. Laboratory Upgrades and Repairs

FY 2016-17: \$700,000	Estimated total project cost:	\$1,171,500
	Estimated completion date:	December 2016

This project will replace the failed 150-ton chiller, modify the HVAC system, and other improvements to the treatment plant’s laboratory.

11. Development Sewerage

FY 2016-17: \$800,000	Estimated total project cost:	\$8,000,000
	Estimated completion date:	June 2024

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.

12. Server Room Relocation

FY 2016-17: \$650,000	Estimated total project cost:	\$1,500,000
	Estimated completion date:	December 2017

This project will relocate and improve the District’s main data center and IT infrastructure.

13. Equipment and Vehicle Acquisition

FY 2016-17: \$600,000	Estimated total project cost:	\$6,000,000
	Estimated completion date:	June 2023

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



CIB-Collection System Program

The major points of emphasis for the Collection System Program in FY 2016-17 include:

- Collection System Master Plan to update the collection system hydraulic hydrodynamic model;
- Renovate sewers as they reach the end of their useful lives to avoid structural failure, reduce dry-weather overflows, and control maintenance costs;
- Upgrade District sewers to relieve capacity constraints and for future renovations;
- Improve the reliability of pumping stations; and
- Respond to regulatory requirements related to SSOs.

The process for project identification, prioritization, and scheduling includes seven major components:

- Results from the District's CCTV inspection program that identify lines in need of rehabilitation or replacement;
- CSO maintenance records including overflows and stoppages;
- The Pumping Station Inventory Update, which identified necessary reliability improvements;
- Collection system facility plans, which identify capacity limitations in the six- through ten-inch lines;
- Coordination with capital improvement programs for paving and pipeline projects of other agencies/utilities; and
- Reduce impacts to customers/residents.

This process allows staff to establish priorities and schedules for the individual elements of the system that are incorporated into the capital budget and plan. Assessment tools, such as CCTV inspection, are utilized to confirm the need for projects. After priorities and schedules are set, projects proceed to design and construction. At each step of the process, the level of accuracy in project scope, schedule, and cost improves.

The Collection System Program is comprised of four subprograms, which includes: 1. Renovation, 2. Regulatory Compliance/Planning/Safety, 3. Expansion, and 4. Pumping Stations. All projects in the Collection System Program are summarized, including planned expenditure, in the following table.

FY 2016-17 CIB Collection System Program Budget/Project Summary

Estimated Expenditures

Project Number	Project	Budgeted to Date	Prior Fiscal Years	FY2016/17	Future FYs	Project Total
5941	PS Equipment Piping Replacement	\$740,000	\$704,000	\$10,000	\$190,000	\$904,000
5982	Pipe Burst Blanket Contract	\$928,000	\$700,000	\$0	\$228,000	\$928,000
5991	Pleasant Hill Sewer Renovation Ph 2	\$400,000	\$183,017	\$150,000	\$3,166,983	\$3,500,000
5999	CIPP Blanket Contract	\$472,000	\$284,650	\$0	\$187,350	\$472,000
6602*	South Jackson CAD	\$334,000	\$80,000	\$253,867	\$0	\$333,867
8412	Pleasant Hill Grayson Creek Trunk	\$13,700,000	\$4,000,000	\$8,900,000	\$800,000	\$13,700,000
8415	Martinez Ph 4 Sewer Renovation	\$3,922,000	\$3,700,000	\$5,000	\$217,000	\$3,922,000
8417	Survey Monument Install	\$200,000	\$188,000	\$50,000	\$262,000	\$500,000
8418	Collection System Modeling	\$1,201,600	\$976,665	\$200,000	\$173,335	\$1,350,000
8419	Collection System Planning LT	\$470,000	\$470,000	\$200,000	\$700,000	\$1,370,000
8420	Development Sewerage	\$3,077,000	\$2,167,606	\$800,000	\$5,032,394	\$8,000,000
8422	Walnut Creek Sewer Renovation Ph 11	\$410,000	\$105,000	\$545,000	\$3,100,000	\$3,750,000
8423	N. Orinda Sewer Renovation Ph 6	\$3,312,500	\$1,058,500	\$2,154,000	\$100,000	\$3,312,500
8426	Lafayette Sewer Renovation Phase 10	\$3,530,000	\$1,124,792	\$2,250,238	\$154,970	\$3,530,000
8429	Fairview Maltby	\$150,000	\$150,000	\$350,000	\$170,000	\$670,000
8430	Lafayette Sewer Renovation Ph 11	\$150,000	\$150,000	\$500,000	\$3,000,000	\$3,650,000
8431	Collection System Master Plan	\$600,000	\$530,000	\$670,000	\$0	\$1,200,000
8433	S. Orinda Sewer Renovation Ph 6	\$0	\$0	\$12,000	\$3,638,000	\$3,650,000
8434	Urgent Projects	\$300,000	\$50,000	\$0	\$450,000	\$500,000
8435	Walnut Creek Sewer Renovation Ph 12	\$0	\$0	\$150,000	\$3,600,000	\$3,750,000
8436*	Moraga/ Crossroads PS Project	\$150,000	\$100,000	\$400,000	\$1,500,000	\$2,000,000
8437	Martinez Sewer Renovation Ph 5	\$150,000	\$150,000	\$325,000	\$3,175,000	\$3,650,000
Totals		\$34,197,100	\$16,872,230	\$17,925,105	\$29,845,032	\$64,642,367

*New project included in CIB.

Pumping Stations Equipment and Piping Replacement

Project Name	Pumping Stations Equipment and Piping Replacement	Project No.	5941
Program:	Collection System Program	Phase	C
Sub-Program:	Pumping Station	Priority Rank	Critical
Project Manager:	Neil Meyer	Ranking Score	65
Department/Division:	Operations/Plant Maintenance	Concord %	0%

Purpose:

The purpose of this project is to replace or recondition failed and obsolete pumps, piping, valves, and other equipment; to provide for proper emergency response at District pumping stations; to purchase major spare assemblies for various pieces of pumping stations equipment; and to meet new regulatory requirements.

History:

This project has been an ongoing replacement of old equipment and piping at the pumping stations. Selection of equipment is done by Operations, Engineering, and in coordination with the ongoing Asset Management Program.

Description:

The scope of work for this project includes:

- Addition of control and isolation valves for shutdown and protection of the stations;
- Revisions to control strategies and equipment response times;
- Possible protections for pumping stations and equipment, if flooded;
- Investigation and installation of “pump around” capabilities;
- Development of emergency response procedures and purchasing equipment;
- Reconditioning of major pieces of equipment to original factory specifications;
- Purchase of large-dollar spare assemblies for major pumping station equipment; and
- Other work or equipment requirements that might be defined by regulators.

Location:

All pumping stations.



Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	-	\$0	\$0	\$0	-	
Design	-	\$0	\$0	\$0	-	
Construction	\$704,000	\$10,000	\$190,000	\$0	\$904,000	
FY Total	\$704,000	\$10,000	\$190,000	\$0	\$904,000	

Pipeburst Blanket Contract

Project Name	Pipeburst Blanket Contract	Project No.	5982
Program:	Collection System Program	Phase	C
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Alex Rozul	Ranking Score	75
Department/Division:	Operations/ Collection System Operations	Concord %	0%

Purpose:

Urgent pipeline projects which require immediate repairs may arise anytime during the current fiscal year.

History:

Projects included in this category are those that cannot be completed by the District's Collection System Operations Division and cannot afford the longer timeline to be incorporated in the year-long budget process. This project will include bidding and executing a blanket contract that will allow the District to use a contractor to perform urgent pipebursting work.

Description:

Project work may be triggered by one of the following situations:

- Imminent threat of pipe break or collapse;
- Potential for an overflow; and
- Structural failure in a pipe.

Location:

Throughout the service area.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$700,000	\$0	\$228,000	\$0	\$928,000
FY Total	\$700,000	\$0	\$228,000	\$0	\$928,000



Pleasant Hill Sewer Renovations, Phase 2

Project Name	Pleasant Hill Sewer Renovations, Phase 2	Project No.	5991
Program:	Collection System Program	Phase	P
Sub-Program:	Renovation	Priority Rank	Very High
Project Manager:	Nancy Molina	Ranking Score	60
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

This project will replace or renovate small-diameter sewers to control future maintenance requirements and costs, to minimize the number of overflows, to limit the quantity of rainfall entering the collection system, and to improve the level of service provided to the residents/ratepayers.



History:

The District's 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB and CIP.



Description:

The Pleasant Hill Sewer Renovations, Phase 2, Project will replace or rehabilitate small diameter sewer pipe located in the public right of ways and easements.

This project will be coordinated with the Pleasant Hill - Grayson Creek Trunk Sewer Project, which is in the Expansion Sub-program.

Location:

City of Pleasant Hill.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$183,017	\$0	\$0	\$0	\$183,0170
Design	\$0	\$150,000	\$350,000	\$0	\$500,000
Construction	\$0	\$0	\$2,500,000	\$316,983	\$2,816,983
FY Total	\$183,017	\$150,000	\$2,850,000	\$316,983	\$3,500,000

CIPP Blanket Contract

Project Name	CIPP Blanket Contract	Project No.	5999
Program:	Collection System Program	Phase	C
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Alex Rozul	Ranking Score	75
Department/Division:	Operations/ Collection System Operations Division	Concord %	0%

Purpose:

Urgent pipeline projects which require immediate repairs may arise anytime during the current fiscal year.

History:

Projects included in this category are those that cannot be completed by the District's Collection System Operations Division and cannot afford the longer timeline to be incorporated in the year-long budget process. This project will include bidding and executing a blanket contract that will allow the District to use a contractor to perform urgent CIPP lining work.

Description:

These projects may be triggered by one of the following situations:

- Imminent threat of pipe break or collapse;
- Potential for an overflow; and
- Structural failure in a pipe.

Budget for this urgent work will be paid for using CIB contingency funds as needed.

Location:

Throughout the service area.



Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$0	\$0	\$0	\$0	\$0	
Design	\$0	\$0	\$0	\$0	\$0	
Construction	\$284,650	\$0	\$0	\$187,350	\$472,000	
FY Total	\$284,650	\$0	\$0	\$187,350	\$472,000	

South Jackson Contractual Assessment District

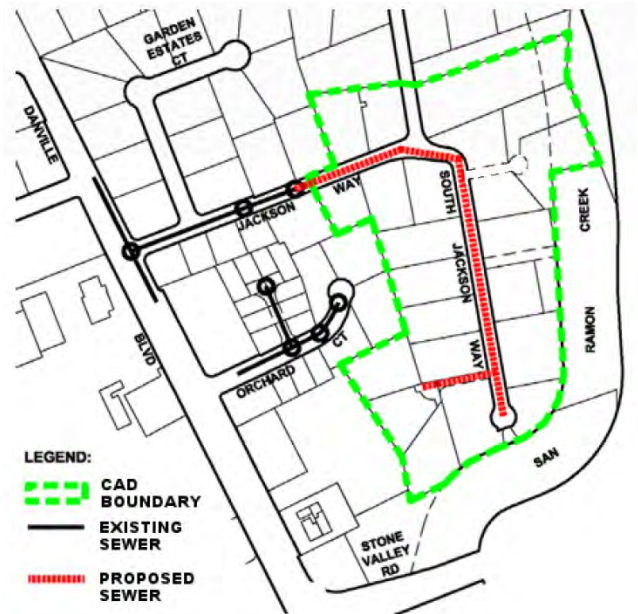
Project Name	South Jackson Contractual Assessment District	Project No.	6602
Program:	Collection System Program	Phase	C
Sub-Program:	Expansion	Priority Rank	N/A
Project Manager:	Russell Leavitt	Ranking Score	N/A
Department/Division:	Engineering/Planning and Development Services	Concord %	0%

Purpose:

The District developed a CAD Program to provide a financing mechanism for the extension of public sewers into areas that are currently served by septic tanks.

History:

In certain instances, the cost to extend public sewers into an area serviced by septic tanks can be an extreme financial burden for one owner or even a small group of owners. The District developed the CAD Program to address this burden. The CAD process provides a means to finance the cost of sewer improvements over time at a fixed interest rate. The CAD assessments are placed on the customers’ property tax bills each year until the entire amount is repaid to the District.



Description:

The South Jackson Way CAD in Alamo will install approximately 1,200 feet of 8-inch sewer and infrastructure that will serve 22 properties, all of which have existing homes relying on septic tanks.

Location:

City of Alamo.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$80,000	\$253,867	\$0	\$0	\$333,867
FY Total	\$80,000	\$253,867	\$0	\$0	\$333,867

Pleasant Hill - Grayson Creek Trunk Sewer

Project Name	Pleasant Hill – Grayson Creek Trunk Sewer	Project No.	8412
Program:	Collection System Program	Phase	C
Sub-Program:	Expansion	Priority Rank	Critical
Project Manager:	Nancy Molina	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

This project will achieve the Collection System Program goal of reducing SSOs by adding a new trunk sewer for diversion of flows and replacing old 6-inch sewer mains. This new trunk sewer will give staff the ability to implement the necessary renovation work in Pleasant Hill.

History:

This project was initiated under a previous Collection System Master Plan. District staff has re-evaluated and confirmed the need for the project based on actual flow data and condition assessments of the trunk sewers along Grayson Creek. The work planned under the Pleasant Hill Corridor Project was included to avoid significant paving reconstruction on Pleasant Hill Road. The Pleasant Hill Corridor Project was planned to start in 2017.



Description:

The project involves installing sewer pipelines of various sizes (8-inch to 24-inch) diverting the sewage away from the existing capacity-deficient sewers, and connecting to the existing 36-inch interceptor that runs along Ardith Drive. The new trunk sewer alignment is within city streets in both Pleasant Hill and Martinez. The existing sewers by the creek will be abandoned and other sewers will be redirected to the new trunk sewer. Due to Pleasant Hill is proposed paving projects, the District may need to include additional sewer replacement along Pleasant Hill Road.

Location:

City of Pleasant Hill.

Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$0	\$0	\$0	\$0	\$0	
Design	\$1,400,000	\$0	\$0	\$0	\$1,400,000	
Construction	\$2,600,000	\$8,900,000	\$800,000	\$0	\$12,300,000	
FY Total	\$4,000,000	\$8,900,000	\$800,000	\$0	\$13,700,000	

Martinez Sewer Renovations, Phase 4

Project Name	Martinez Sewer Renovations, Phase 4	Project No.	8415
Program:	Collection System Program	Phase	C
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Mark Wenslawski	Ranking Score	75
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District's 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

The Martinez Sewer Renovations, Phase 4, Project replaced approximately 7,700 feet of six and eight-inch sewer main pipe in Martinez. This project is in the construction phase and scheduled to be completed in FY 2016-17.

Location:

City of Martinez.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$216,739	\$0	\$0	\$0	\$216,739
Design	\$756,404	\$0	\$0	\$0	\$756,404
Construction	\$2,726,857	\$5,000	\$217,000	\$0	\$2,948,857
FY Total	\$3,700,000	\$5,000	\$217,000	\$0	\$3,922,000

Survey Monument Installation Project

Project Name	Survey Monument Installation Project	Project No.	8417
Program:	Collection System Program	Phase	C
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Greg St. John	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

This project will provide resources necessary to fulfill Survey’s professional and legal obligation to reference and replace survey monuments that are destroyed during the construction process.

History:

Sewer renovation projects frequently remove survey monuments either because the monument lies directly in the path of the new sewer or in the pavement restoration zone. The survey monument installations will be throughout the District service area wherever sewer renovation projects have been completed. Survey monuments must be replaced according to California law (§8771 Business and Professions Code).

Description:

The current project scope of work consists of the installation of survey monuments that were removed during sewer renovations. This project will allow Survey staff to work with a contractor to restore the required survey monuments.



Location:

Throughout the service area.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$188,000	\$50,000	\$50,000	\$212,000	\$500,000
FY Total	\$188,000	\$50,000	\$50,000	\$212,000	\$500,000



Collection System Modeling Upgrade

Project Name	Collection System Modeling Upgrade	Project No.	8418
Program:	Collection System Program	Phase	C
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Critical
Project Manager:	Micheal Penny	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	0%

Purpose:

The Collection System hydraulic model provides the foundation for managing the capacity needs of the District’s sewers. The existing steady state model is not suited to Master Planning capacity studies, and the programming language used for the foundation of the model is no longer supported by the vendor. A commercially available dynamic model is needed.

History:

Staff initiated the steps necessary to upgrade the District’s collection system modeling capabilities several years ago. Due to the time and effort necessary to complete this project, staff recommends to implementing this project along with the CWMP Project.

Description:

Migrate from a proprietary steady state hydraulic model to a commercially available dynamic hydraulic model.

Location:

Throughout the service area.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$126,666	\$0	\$0	\$0	\$126,666
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$701,600	\$200,000	\$173,335	\$0	\$1,074,935
FY Total	\$976,665	\$200,000	\$173,335	\$0	\$1,350,000

Collection System Planning

Project Name	Collection System Planning	Project No.	8419
Program:	Collection System Program	Phase	P
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Critical
Project Manager:	Micheal Penny	Ranking Score	70
Department/Division:	Engineering/Planning and Development Services	Concord %	0%

Purpose:

This project will identify, evaluate, and schedule short and long-term sewer improvement projects and to provide design flow rates for major facility plans.

History:

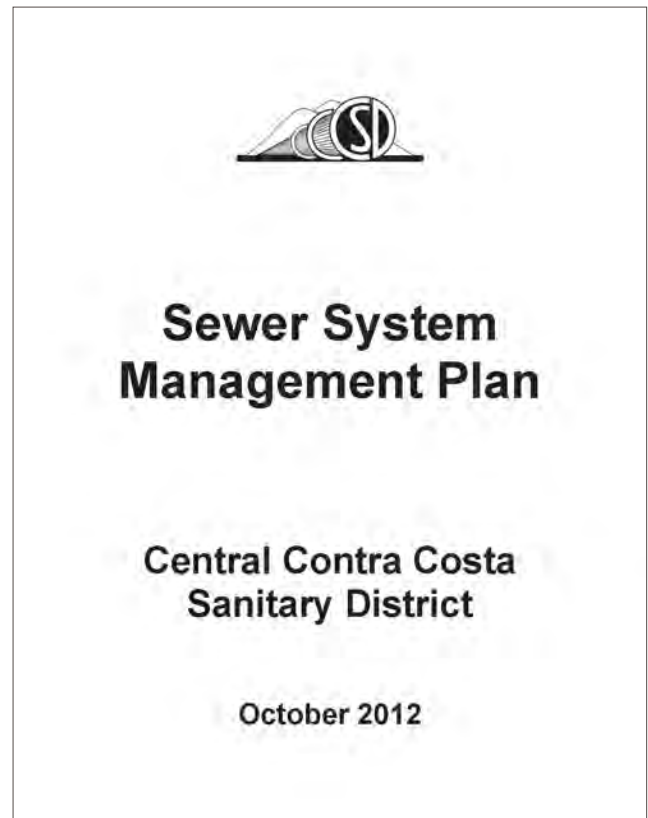
Staff performs on-going Collection System Planning and project priority analyses to ensure that District goals for collection system performance are met.

Description:

Collection System Planning studies provide the basis for improvements to the District’s sewer system and flow rates for facility plans. Studies focus on Local Capacity Studies, Collection System Database Management, Flow Rates for Facility Plans, and Special Studies. This project also provides funding for small scale flow monitoring studies and technology trials and assessments, and pilot studies.

Location:

Entire Collection System.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$470,000	\$200,000	\$200,000	\$500,000	\$1,370,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$470,000	\$200,000	\$200,000	\$500,000	\$1,370,000



2016-17 Development Sewerage

Project Name	2016-17 Development Sewerage	Project No.	8420
Program:	Collection System Program	Phase	C
Sub-Program:	Expansion	Priority Rank	N/A
Project Manager:	Tom Godsey	Ranking Score	N/A
Department/Division:	Engineering/Planning and Development Services	Concord %	0%

Purpose:

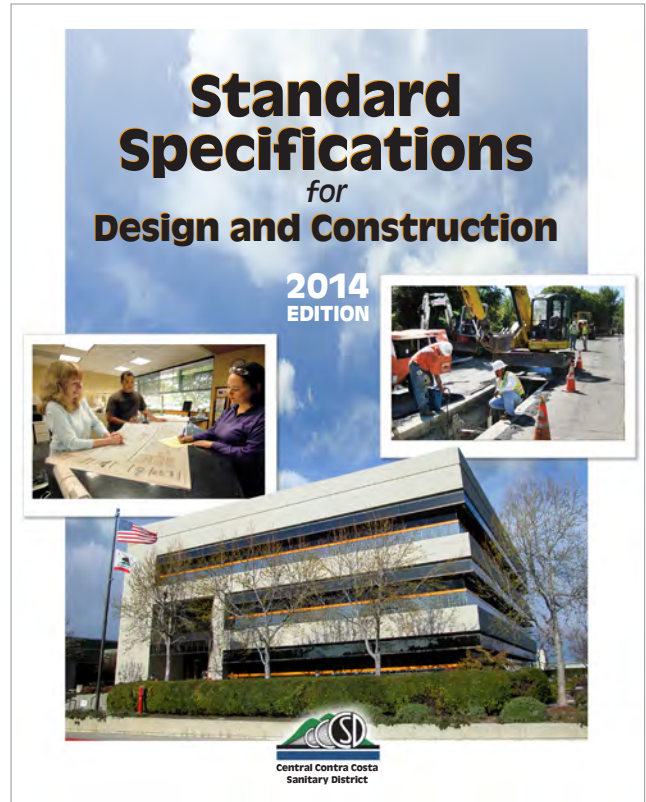
This project provides for appropriate capitalization of District force account labor and other expenses for planning, design, and construction of developer installed sewer facilities.

History:

This is a cost-neutral project paid for by permit development fees. The costs for the sewer infrastructure is paid by the developers.

Description:

The District requires property owners to pay for the main sewers needed to serve their property. Where sewers are designed and installed by developers or other private parties, District planning, plan review, right-of-way, inspection and record drawing/mapping effort is required to ensure that contributed sewers meet the District’s Standard Specifications for Design and Construction. These activities are capitalized under this project. A portion of the revenue collected for plan review, right-of-way, and inspection is credited to the Sewer Construction Fund and offsets some of the expenditures made under this capital project.



Location:

Entire Collection System.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$2,167,606	\$800,000	\$800,000	\$4,232,394	\$8,000,000
FY Total	\$2,167,606	\$800,000	\$800,000	\$4,232,394	\$8,000,000

Walnut Creek Renovations, Phase 11

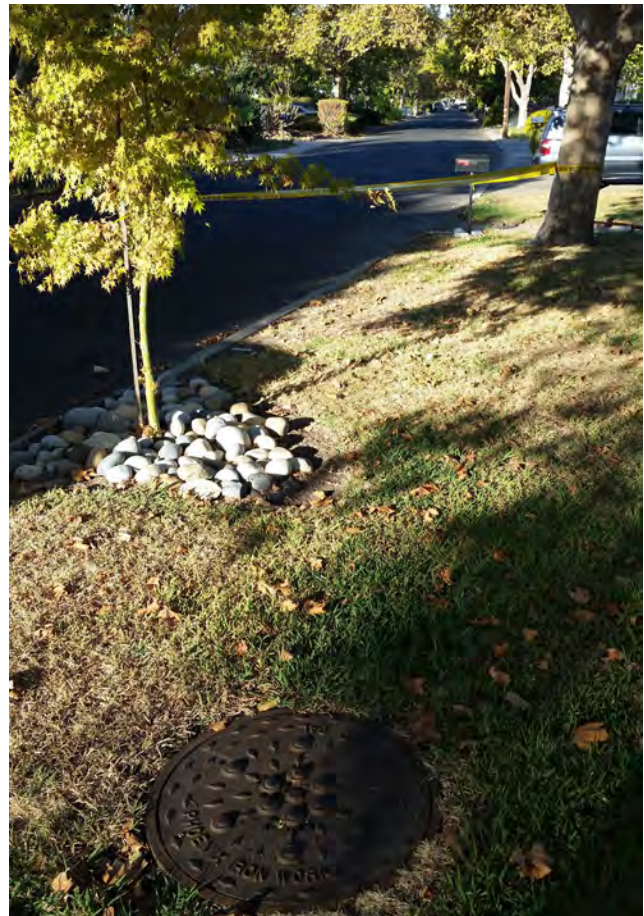
Project Name	Walnut Creek Renovations, Phase 11	Project No.	8422
Program:	Collection System Program	Phase	D
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Mark Wenslawski	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

The Walnut Creek Sewer Renovations, Phase 11 Project will replace or rehabilitate small-diameter sewer pipe located in the public right of ways and easements.

Location:

City of Walnut Creek.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$105,000	\$45,000	\$0	\$0	\$150,000
Design	\$0	\$500,000	\$0	\$0	\$500,000
Construction	\$0	\$0	\$3,000,000	\$100,000	\$3,100,000
FY Total	\$105,000	\$545,000	\$3,000,000	\$100,000	\$3,750,000



North Orinda Sewer Renovations, Phase 6

Project Name	North Orinda Sewer Renovations, Phase 6	Project No.	8423
Program:	Collection System Program	Phase	C
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Mark Wenslawski	Ranking Score	75
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

The North Orinda Sewer Renovations, Phase 6 Project will replace/rehabilitate approximately 8,700 feet of six and eight-inch sewers located in the public right of ways and easements.

Location:

City of Orinda.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$158,500	\$0	\$0	\$0	\$158,500
Design	\$400,000	\$0	\$0	\$0	\$400,000
Construction	\$500,000	\$2,154,000	\$100,000	\$0	\$2,754,000
FY Total	\$1,058,500	\$2,154,000	\$100,000	\$0	\$3,312,500

Lafayette Sewer Renovations, Phase 10

Project Name	Lafayette Sewer Renovations, Phase 10	Project No.	8426
Program:	Collection System Program	Phase	C
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Amanda Schmidt	Ranking Score	75
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

The Lafayette Sewer Renovations, Phase 10 Project will replace or rehabilitate approximately 9,000 feet of various diameter sewer pipe located in the public right of ways and easements.

Location:

City of Lafayette.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$149,792	\$0	\$0	\$0	\$149,792
Design	\$555,000	\$0	\$0	\$0	\$555,000
Construction	\$420,000	\$2,250,000	\$155,208	\$0	\$2,825,208
FY Total	\$1,124,792	\$2,250,000	\$155,208	\$0	\$3,530,000



Fairview Maltby Pump Stations Upgrades

Project Name	Fairview Maltby Pump Stations Upgrades	Project No.	8429
Program:	Collection System Program	Phase	D
Sub-Program:	Pumping Stations	Priority Rank	Very High
Project Manager:	Amanda Schmidt	Ranking Score	55
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Provide equipment replacement and improvements to the Fairview and Maltby Pumping Stations.

History:

In 2014, the Maltby Pumping Station had an electrical failure with the automatic transfer switch (ATS) used for emergency power. The District immediately replaced the ATS and evaluated the electrical system under the Arc Flash Project. In addition, there has been a comprehensive condition assessment of the Maltby and Fairview Pumping Stations. Fairview is of the same vintage and was built to match. The condition assessments have identified electrical and mechanical equipment replacement.



Description:

This project will replace the automatic transfer switch at Fairview and include critical replacement work identified under the condition assessments. This project will also include recommendations provided by the Arc Flash Project.

Location:

Fairview and Maltby Pumping Stations in Martinez.

Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$50,000	\$0	\$0	\$0	\$50,000	
Design	\$100,000	\$50,000	\$0	\$0	\$150,000	
Construction	\$0	\$300,000	\$170,000	\$0	\$470,000	
FY Total	\$150,000	\$350,000	\$170,000	\$0	\$670,000	

Lafayette Sewer Renovation, Phase 11

Project Name	Lafayette Sewer Renovation, Phase 11	Project No.	8430
Program:	Collection System Program	Phase	P
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Amanda Schmidt	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

This project will replace or rehabilitate existing sewers and associated infrastructure located in the public right of way and easements. The proposed sites will be coordinated with Lafayette, other utilities, and the District’s CSO Division.

Location:

City of Lafayette.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$150,000	\$0	\$0	\$0	\$150,000
Design	\$0	\$500,000	\$0	\$0	\$500,000
Construction	\$0	\$0	\$3,000,000	\$0	\$3,000,000
FY Total	\$150,000	\$500,000	\$3,000,000	\$0	\$3,650,000

Collection System Master Plan

Project Name	Collection System Master Plan	Project No.	8431
Program:	Collection System Program	Phase	P
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Critical
Project Manager:	Michael Penny	Ranking Score	70
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

To develop a CWMP that determines the future direction, capital improvement needs, and priorities for the District’s wastewater treatment plant.

History:

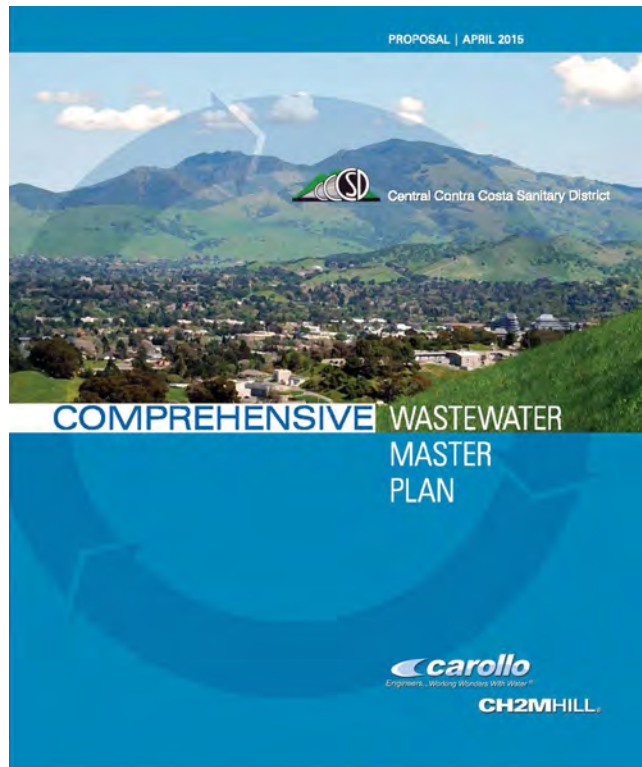
The 2011 Plant of the Future visioning exercises completed as part of District Project 7287 – Treatment Plant Master Plan Update included recommendations for completing a CWMP to determine the needs and direction of the District. While the District has performed a number of planning and research studies/ reports, the last Treatment Plant Master Plan was completed in 1987.

Description:

The Treatment Plant Master Plan is one component of the CWMP. A key deliverable of the Treatment Plant Master Plan will be a CIP for the next 20-year planning horizon that provides the descriptions, rationale and estimated costs for the District’s treatment plant capital improvement projects and on-going programs in order to address aging infrastructure, meet existing and anticipated regulatory requirements, accommodate planned growth, optimize energy use, and implement the District’s vision for a “plant of the future” that is consistent with the District’s Strategic Plan.

Location:

Entire service area.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$530,000	\$670,000	\$0	\$0	\$1,200,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$530,000	\$670,000	\$0	\$0	\$1,200,000

South Orinda Sewer Renovation, Phase 6

Project Name	South Orinda Sewer Renovation, Phase 6	Project No.	8433
Program:	Collection System Program	Phase	P
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Mark Wenslawski	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

This project will replace or rehabilitate existing sewers and associated infrastructure located in the public right of ways and easements. The proposed sites will be coordinated with Orinda, other utilities, and the District’s CSO Division. All or a majority of sites will be located south of Highway 24 in Orinda.

Location:

City of Orinda.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$12,000	\$138,000	\$0	\$150,000
Design	\$0	\$0	\$500,000	\$0	\$500,000
Construction	\$0	\$0	\$0	\$3,000,000	\$3,000,000
FY Total	\$0	\$12,000	\$638,000	\$3,000,000	\$3,650,000

Collection System Urgent Projects

Project Name	Collection System Urgent Projects	Project No.	8434
Program:	Collection System Program	Phase	C
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Amanda Schmidt	Ranking Score	75
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

This project will restore and protect sewers damaged or threatened during winter storms. In addition, the program will address structurally deficient sewers identified by CSO.

History:

During major storm events, sewers at various locations may be damaged or threatened. In some cases, landslides or soil erosion may undermine the sewers. The repair and restoration of these sewers is typically time sensitive. In addition, the District has embarked on an extensive investigation of the condition of its sewer system. Occasionally, sewers in very poor condition are identified and cannot wait for incorporation into the CIB/CIP. Such situations will be addressed under this program.



Description:

A standby contractor will be selected by the District team and be used for urgent or emergency needs for the collection system, recycled water, and pumping station forcemains. Funding will be used from the CIB contingency account as needed.

Location:

Entire service area.

Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$0	\$0	\$0	\$0	\$0	
Design	\$50,000	\$0	\$0	\$0	\$50,000	
Construction	\$0	\$0	\$0	\$450,000	\$450,000	
FY Total	\$50,000	\$0	\$0	\$450,000	\$500,000	

Walnut Creek Renovations, Phase 12

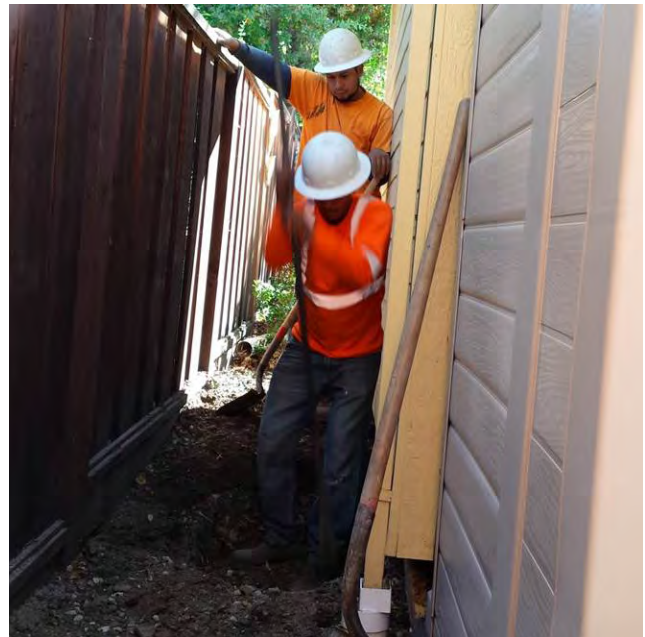
Project Name	Walnut Creek Renovations, Phase 12	Project No.	8435
Program:	Collection System Program	Phase	P
Sub-Program:	Renovation	Priority Rank	Critical
Project Manager:	Sasha Mestetsky	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

This project will replace or rehabilitate existing sewers and associated infrastructure located in the public right of ways and easements. The proposed sites will be coordinated with Walnut Creek, other utilities, and the District’s CSO Division.

Location:

City of Walnut Creek.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$150,000	\$0	\$0	\$150,000
Design	\$0	\$0	\$500,000	\$0	\$500,000
Construction	\$0	\$0	\$1,000,000	\$2,100,000	\$3,100,000
FY Total	\$0	\$150,000	\$1,500,000	\$2,100,000	\$3,750,000



Moraga/Crossroads PS Project

Project Name	Moraga/Crossroads PS Project	Project No.	8436
Program:	Collection System Program	Phase	D
Sub-Program:	Pumping Stations	Priority Rank	Very High
Project Manager:	Amanda Schmidt	Ranking Score	55
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

To rehabilitate the Moraga and Crossroads Pumping Stations as determined by ongoing condition assessments.

History:

Major equipment and components are becoming obsolete because replacement parts are not available. The Comprehensive Master Plan includes a condition assessment evaluation of pumping station assets. Results from this effort will be used to scope rehabilitation efforts. Operations also identified the need to evaluate the electrical standby generators and adding grinders at Moraga Pumping Station.

Description:

Based on condition assessment results and Operations input, the scope of this project may include:

- Replacing backup generators at both pumping stations;
- Adding grinders at Moraga Pumping Station;
- Replacement of Waukesha diesel engines at both pumping stations; and
- Other work or equipment needs.

Location:

Town of Moraga and City of Orinda.



Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$100,000	\$0	\$0	\$0	\$100,000	
Design	\$0	\$400,000	\$0	\$0	\$400,000	
Construction	\$0	\$0	\$1,500,000	\$0	\$1,500,000	
FY Total	\$100,000	\$400,000	\$1,500,000	\$0	\$2,000,000	

Martinez Sewer Renovation Phase 5

Project Name	Martinez Sewer Renovation Phase 5	Project No.	8437
Program:	Collection System Program	Phase	D
Sub-Program:	Renovation	Priority Rank	High
Project Manager:	Mark Wenslawski	Ranking Score	30
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Replace or rehabilitate small-diameter sewers in order to prevent overflows, control future maintenance requirements, lower collection system infiltration, and to provide cost effective infrastructure replacement with excellent customer service to the public.

History:

The District’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry-weather collection system overflows. The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the CIB.



Description:

This project will replace or rehabilitate existing sewers and associated infrastructure located in the public right of ways and easements. The proposed sites will be coordinated with Martinez, other utilities, and the District’s CSO Division. All or a majority of sites will be located south of Highway 24 in Martinez.

Location:

City of Martinez.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$150,000	\$0	\$0	\$0	\$150,000
Design	\$0	\$325,000	\$175,000	\$0	\$500,000
Construction	\$0	\$0	\$3,000,000	\$0	\$3,000,000
FY Total	\$150,000	\$325,000	\$3,175,000	\$0	\$3,650,000



CIB-Treatment Plant Program

The Treatment Plant Program is comprised of four subprograms which include: 1) Regulatory Compliance/ Planning/Safety, 2) One-time Renovations, 3) Reoccurring Renovation, and 4) Expansion. All projects in this program are summarized, including planned expenditures, in the following table:

FY 2016-17 CIB Treatment Plant Program Budget/Project Summary

Estimated Expenditures

Project Number	Project	Budgeted to Date	Prior Fiscal Years	FY16/17	Future FYs	Project Total
7285	Primary Treatment Renovation	\$14,947,000	\$14,897,000	\$50,000	\$0	\$14,947,000
7286	Centrifuge & Cake Pumps	\$200,000	\$100,000	\$500,000	\$2,000,000	\$2,600,000
7291	Pump & Blower Bldg, Seismic Upgrade	\$695,000	\$680,000	\$2,900,000	\$2,373,000	\$5,953,000
7292	Switchgear Refurbishment - Ph 2	\$420,000	\$300,000	\$100,000	\$1,020,000	\$1,420,000
7297	Caustic Addition to MHF	\$1,351,600	\$1,301,600	\$50,000	\$0	\$1,351,600
7301	Treatment Plant Planning	\$2,698,000	\$2,683,000	\$350,000	\$312,000	\$3,345,000
7304	Instrumentation & Controls PLC Upgrade	\$335,000	\$325,000	\$100,000	\$408,000	\$833,000
7310	Piping Renovations - Ph 8	\$1,570,000	\$1,545,000	\$25,000	\$0	\$1,570,000
7311	TP Safety Enhancement Ph 4	\$340,000	\$339,000	\$150,000	\$201,000	\$690,000
7312	Ash Facility Improvements	\$90,000	\$80,000	\$800,000	\$1,320,000	\$2,200,000
7314	Urgent Repairs	\$50,000	\$40,000	\$110,000	\$450,000	\$600,000
7315	Applied Research and Innovations	\$350,000	\$239,000	\$175,000	\$1,128,000	\$1,542,000
7317	Plant Control System Network Upgrades	\$160,000	\$80,000	\$100,000	\$350,000	\$530,000
7319	Laboratory Upgrades & Repair	\$1,171,500	\$426,777	\$700,000	\$44,723	\$1,171,500
7320	Plant Energy Optimization	\$90,000	\$80,000	\$50,000	\$1,270,000	\$1,400,000
7322	Fire Protection System Ph 2	\$240,000	\$85,000	\$600,000	\$255,000	\$940,000
7324	Substation 16 Switchgear Replacement	\$600,000	\$500,000	\$2,144,000	\$0	\$2,644,000
7326	Equipment Replacement FY15-FY24	\$606,000	\$510,000	\$460,000	\$1,430,000	\$2,400,000
7327	Headwork's Screening	\$900,000	\$650,000	\$1,600,000	\$6,150,000	\$8,400,000
7329	MHF Burner Upgrade	\$100,000	\$30,000	\$270,000	\$550,000	\$850,000
7330	Piping Renovation Phase 9	\$0	\$0	\$241,000	\$1,459,000	\$1,700,000
7339	Plant Control System I/O Replacement	\$100,000	\$50,000	\$300,000	\$3,950,000	\$4,300,000
7341	Walnut Creek / Grayson Creek Levee Rehab	\$0	\$0	\$150,000	\$950,000	\$1,100,000
7343	TP Master Plan	\$1,400,000	\$1,300,000	\$800,000	\$100,000	\$2,200,000
TBD	Wet Scrubber Replacement- LT	\$0	\$0	\$400,000	\$9,100,000	\$9,500,000
	Totals	\$28,414,100	\$26,241,377	\$13,125,000	\$34,820,723	\$74,187,100

Primary Treatment Renovation

Project Name	Primary Treatment Renovation	Project No.	7285
Program:	Treatment Plant Program	Phase	C
Sub-Program:	One-Time Renovation	Priority Rank	Critical
Project Manager:	Jason DeGroot	Ranking Score	90
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

This project will improve the reliability of the Primary Treatment area of the treatment plant.

History:

Two of the four primary sedimentation tanks were constructed in the mid-1960s and the other two tanks were constructed in the mid-1970s as part of the 5A Expansion Project. Some components are corroding and nearing the end of their service life.

Description:

Renovate or replace the spray water and air supply pipelines at the primary sedimentation tanks. The primary scum collection system will be renovated with new scum sprays, new helical scum skimmers and drives, and a stainless steel scum hopper 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, upgrading hand railings, replacing the primary level control valve, replacing the primary MCCs and PLC panels, and installing new grit washing equipment. Refurbishment of Primary Effluent (PE) Pump 1 and Pump 2 are included in the project. This project is currently under construction and is anticipated to be completed in FY 2015-16.



Location:

Primary Tanks, SCB, and Pump and Blower Building.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$14,897,000	\$50,000	\$0	\$0	\$14,947,000
FY Total	\$14,897,000	\$50,000	\$0	\$0	\$14,947,000

Centrifuge and Cake Pump Upgrades

Project Name	Centrifuge and Cake Pump Upgrades	Project No.	7286
Program:	Treatment Plant Program	Phase	P
Sub-Program:	One-Time Renovation	Priority Rank	Very High
Project Manager:	Craig Mizutani	Ranking Score	50
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

The purpose of this project is to improve solids capture and reliability of the sludge dewatering equipment.

History:

The existing centrifuges and cake pumps will have been in service for more than 25 years. The design life of rotating equipment is generally around 15 years. While routine rotation of the operational and stand-by centrifuge helps increase the operating lifespan, Operations can expect more frequent and extensive O&M requirements as the centrifuges and cake pumps continue to age. Historical treatment plant data has shown that the solids capture has decreased throughout the years. In addition, as centrifuge design and materials of construction continue to develop, the next generation of centrifuges is expected to last longer, cost less to operate, and produce a drier sludge, which would result in less furnace fuel to burn.



Description:

This project will use the information gathered under the Solids Handling Evaluation Project as well as recent pilot test data to make improvements to the dewatering equipment and process for construction. Additional related tasks will be included in this project as appropriate. A portion of this project, centrifuge replacement, is being considered under the Plant Energy Optimization Project.

Location:

Solids Conditioning Building.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$100,000	\$50,000	\$0	\$0	\$150,000
Design	\$0	\$450,000	\$0	\$0	\$450,000
Construction	\$0	\$0	\$1,000,000	\$1,000,000	\$2,000,000
FY Total	\$100,000	\$500,000	\$1,000,000	\$1,000,000	\$2,600,000

Pump & Blower Building Seismic Upgrades

Project Name	Pump & Blower Building Seismic Upgrades	Project No.	7291
Program:	Treatment Plant Program	Phase	D
Sub-Program:	One-Time Renovation	Priority Rank	Very High
Project Manager:	Jason DeGroot	Ranking Score	55
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

Improve the seismic safety of the Pump and Blower Building.

History:

In January 2008, California adopted the 2007 California Building Code (2007 CBC). Among the updates in the 2007 CBC were significant changes to seismic design. In 2009, a seismic evaluation was completed of the treatment plant facilities (Martinez Wastewater Treatment Plant Seismic Vulnerability Assessment of Selected Facilities, December 2009). Included in the evaluation are recommendations to bring the Pump and Blower Building in line with current seismic design standards.

Description:

Make seismic improvements to the Pump and Blower Building as recommended by the Vulnerability Assessment.

Location:

Pump and Blower Building.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$680,000	\$15,000	\$0	\$0	\$695,000
Construction	\$0	\$2,885,000	\$2,373,000	\$0	\$5,258,000
FY Total	\$680,000	\$2,900,000	\$2,373,000	\$0	\$5,953,000

Switchgear Refurbishment, Phase 2

Project Name	Switchgear Refurbishment, Phase 2	Project No.	7292
Program:	Treatment Plant Program	Phase	C
Sub-Program:	One-Time Renovation	Priority Rank	Critical
Project Manager:	Mark Cavallero	Ranking Score	70
Department/Division:	Operations/ Plant Maintenance	Concord %	100%

Purpose:

Refurbish electrical switchgear to maintain the electrical reliability of the treatment plant.

History:

The electrical switchgear throughout the treatment plant was installed in the 1970s and has been well maintained using preventative techniques, such as thermographic imaging, to identify potential problems and correct them prior to failure. Inspections in 2003 and 2004 showed that many of the trip units on the circuit breakers required replacement. Circuit breakers have been sent out for Class 1 reconditioning and trip unit replacement on an as-needed basis.

Description:

The remaining 480v circuit breakers (approximately 66 Westinghouse/Cutler-Hammer) will be refurbished over a five-year period. Work also includes replacement of the 2400v breakers at Substation 52, Substation 40, and air breakers at Substation 82. The labor and coordination will be performed by District maintenance staff with support from consultants when electrical design work is needed.



Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$300,000	\$100,000	\$250,000	\$770,000	\$1,420,000
FY Total	\$300,000	\$100,000	\$250,000	\$770,000	\$1,420,000

Wet Scrubber Caustic Injection System

Project Name	Wet Scrubber Caustic Injection System	Project No.	7297
Program:	Treatment Plant Program	Phase	C
Sub-Program:	One-Time Renovation	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	65
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

Install Sodium Hydroxide (caustic) injection system on the wet scrubbers on each MHF.

History:

Effective March 2016, the Clean Air Act Section 129 regulations established new, more stringent operating and emission standards for the District’s multiple hearth furnaces. The 129 regulations established a minimum operating limit for the pH of the wet scrubber system spray water outlet as a parametric for HCl emissions. This project will install a new caustic injection system in the existing chemical containment area north of the Solids Conditioning Building and related piping and equipment inside the Solids Conditioning Building.

Description:

Due to the recent emission regulations, a new caustic addition system will be installed to help meet proposed emission limits by the BAAQMD.

Location:

Solids Conditioning Building.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$75,000	\$0	\$0	\$0	\$75,000
Design	\$250,000	\$0	\$0	\$0	\$250,000
Construction	\$976,600	\$50,000	\$0	\$0	\$1,026,600
FY Total	\$1,301,600	\$50,000	\$0	\$0	\$1,351,600



Treatment Plant Planning

Project Name	Treatment Plant Planning	Project No.	7301
Program:	Treatment Plant Program	Phase	P
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Critical
Project Manager:	Dan Frost	Ranking Score	85
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

To fund ongoing feasibility and planning studies needed to address regulatory initiatives to maintain permit compliance and optimizations to improve the reliability and performance of existing treatment plant processes and facilities.

History:

As wastewater regulations continue to develop, and as new wastewater treatment technologies become available, process modifications may be required in the treatment plant. This project included the Suisun Bay modeling results, Facility Plan and Site Characterization Report and associated studies submitted to satisfy the District’s NPDES permit.

Description:

This project will include the District’s efforts to support the BACWA Regional Optimization and Upgrade Study that is being implemented to satisfy the 2014 Nutrient Watershed Permit, evaluation of treatment plant process modifications and optimizations, and other treatment plant planning related studies.

Location:

Entire treatment plant.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$2,683,000	\$350,000	\$312,000	\$0	\$3,345,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$2,683,000	\$350,000	\$312,000	\$0	\$3,345,000

PLC System Upgrades

Project Name	PLC System Upgrades	Project No.	7304
Program:	Treatment Plant Program	Phase	C
Sub-Program:	One-Time Renovation	Priority Rank	Very High
Project Manager:	Chuck Burnash	Ranking Score	50
Department/Division:	Operations/Plant Operations	Concord %	100%

Purpose:

Upgrade Programmable Logic Controller (PLC) system to current technology for increased performance and improved compatibility.

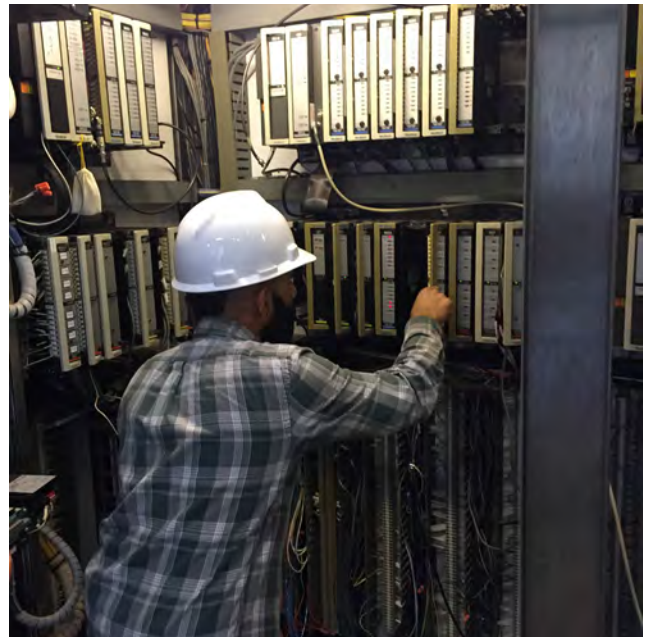
History:

The first PLCs were installed at the treatment plant in 1986. The number of PLCs has increased from the original two to more than 30. Programming software for the newer PLCs no longer runs efficiently on the older programming units.

Description:

This project will continue to upgrade the treatment plant's PLC system by:

- Providing and upgrading hardware and software necessary to maintain the PLC application;
- Replacing older computers with newer ones capable of running current software; and
- Upgrading older PLC models to maintain compatibility with new equipment.



Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$96,669	\$0	\$0	\$0	\$96,669
Construction	\$228,331	\$100,000	\$100,000	\$308,000	\$736,331
FY Total	\$325,000	\$100,000	\$100,000	\$308,000	\$833,000



Piping Renovations, Phase 8

Project Name	Piping Renovations, Phase 8	Project No.	7310
Program:	Treatment Plant Program	Phase	C
Sub-Program:	Recurring Renovation	Priority Rank	Critical
Project Manager:	Brad Leidecker	Ranking Score	70
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

To improve the reliability of the piping systems above and below ground in the treatment plant by inspection, renovation, and replacement where required.

History:

During the 5A Project, numerous piping systems were installed throughout the treatment plant. These pipes carry the processed wastewater, sludge, steam, air, and other utility services between the various sections of the treatment plant. These pipes have been in place for more than 40 years. Some of these pipes are leaking due to corrosion. The first seven phases of this program renovated or replaced various piping systems.

Description:

This phase of the Treatment Plant Piping Renovations Project will include previously identified piping renovations and replacement work not yet included in a construction project.

Location:

Entire treatment plant.



Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$86,917	\$0	\$0	\$0	\$86,917	
Design	\$203,160	\$0	\$0	\$0	\$203,160	
Construction	\$1,254,923	\$25,000	\$0	\$0	\$1,279,923	
FY Total	\$1,545,000	\$25,000	\$0	\$0	\$1,570,000	

Treatment Plant Safety Enhancements Phase 4

Project Name	Treatment Plant Safety Enhancements Phase 4	Project No.	7311
Program:	Treatment Plant Program	Phase	C
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Critical
Project Manager:	Brad Leidecker	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

To enhance treatment plant safety through identification of safety concerns, repairs, and capital improvements.

History:

The District and the treatment plant have very proactive safety programs that are administered by separate committees. These committees are responsible for addressing safety concerns as identified by the craftsmen or to respond to the ever-changing regulatory requirements. Often this response will require construction of a capital project. The first three phases of this program addressed various safety repairs and improvements.



Description:

The project will include a hazardous waste facility improvements and other safety related items. In addition, the project will be coordinated with safety improvements identified in the general improvements program, the costs will be assigned to its perspective program.

Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$41,442	\$0	\$0	\$0	\$41,442
Design	\$150,000	\$0	\$0	\$0	\$150,000
Construction	\$147,558	\$150,000	\$201,000	\$0	\$498,558
FY Total	\$339,000	\$150,000	\$201,000	\$0	\$690,000



Ash Facility Improvements

Project Name	Ash Facility Improvements	Project No.	7312
Program:	Treatment Plant Program	Phase	P
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

This project will improve ash containment within the Solids Conditioning Building (SCB).

History:

Ash is collected at the bottom of the furnaces and conveyed to storage bins located on the third floor of the SCB using a vacuum and filter system. The filter and storage location is not isolated from other processes within the SCB, so ash can spread through the building, resulting in expensive and difficult building cleaning. Furthermore, Clean Air Act Section 129 regulation limits the amount of visible ash emissions from the truck loading facility. A report prepared by Ch2M in 2016, recommended both short and long-term improvements to the existing ash system.



Description:

This project will make improvements to limit the amount of ash dispersed within the SCB and contain the storage area. In addition, this project will evaluate and construct improvements to meet regulatory requirements as coordinated with the CWMP and as recommended in the report by CH2M.

Location:

Solids Conditioning Building.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$80,000	\$0	\$0	\$0	\$80,000
Design	\$0	\$300,000	\$0	\$0	\$300,000
Construction	\$0	\$500,000	\$1,320,000	\$0	\$1,820,000
FY Total	\$80,000	\$800,000	\$1,320,000	\$0	\$2,200,000

Urgent Repairs Blanket Contract

Project Name	Urgent Repairs Blanket Contract	Project No.	7314
Program:	Treatment Plant Program	Phase	C
Sub-Program:	Recurring Renovation	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	80
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

Provide staff the capability to perform immediate electrical, mechanical, and other miscellaneous repairs within the treatment plant.

History:

Projects included in this category are those that cannot be completed by the District’s Plant Maintenance staff, and cannot afford the longer timeline to be incorporated in the budget process. This project will include bidding and executing a blanket contract that will allow the District to use a contractor for urgent construction work.

Description:

Urgent treatment plant projects which require immediate repairs or replacement may arise anytime during the current fiscal year. These projects may be triggered by:

- Equipment or process piping failure;
- Compliance with regulatory or code issues;
- Impacts from operational procedures or process; and
- Safety hazards.

Budget for this work will be paid for using CIB Contingency.

Location:

Entire treatment plant.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$40,000	\$10,000	\$0	\$0	\$50,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$100,000	\$150,000	\$300,000	\$550,000
FY Total	\$40,000	\$110,000	\$150,000	\$300,000	\$600,000



Applied Research and Innovations

Project Name	Applied Research & Innovations	Project No.	7315
Program:	Treatment Plant Program	Phase	P
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Very High
Project Manager:	Dan Frost	Ranking Score	50
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

To fund applied research and development of key technologies, processes, and innovations.

History:

The District uses pilot plants, research, and equipment testing to verify suitability of new technologies and processes at the treatment plant. The District has performed both full scale, and pilot testing of centrifuge equipment, zeolite anammox nutrient removal systems, and sludge screening equipment. Pilot plant, research and testing will be instrumental in selecting future treatment plant process technologies. The results of the recent zeolite anammox pilot testing showed that the process may not be suitable for full scale nutrient removal at the treatment plant.



Description:

This project includes piloting of technologies, processes, and innovations that have the potential to reduce the District’s long-term capital improvement and operations and maintenance costs, address future regulatory requirements, and that also supports the District’s goal to embrace innovation and to be a leader in the wastewater industry.

Some of the potential equipment and technologies to pilot include nutrient removal processes, primary chemical addition, MHF wet scrubbers, dewatering/sludge treatment and disposal, disinfection, and other process technologies identified in the Comprehensive Wastewater Master Plan.

Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$239,000	\$175,000	\$200,000	\$928,000	\$1,542,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$239,000	\$175,000	\$200,000	\$928,000	\$1,542,000

Plant Control System Network Upgrades

Project Name	Plant Control System Network Upgrades	Project No.	7317
Program:	Treatment Plant Program	Phase	C
Sub-Program:	One-Time Renovation	Priority Rank	Very High
Project Manager:	Nate Morales	Ranking Score	50
Department/Division:	Operations/ Plant Operations	Concord %	100%

Purpose:

Upgrade the Plant Control System Ethernet Network to Industrial Ethernet standards.

History:

In 2006 the District’s treatment plant installed a new Ethernet based SCADA system.

At the time the SCADA system was installed, Ethernet was limited to the servers only and was redundant. Over time, the Ethernet system expanded to the entire treatment plant, but the redundancy was not maintained. Currently, the primary path for treatment plant data traffic runs over the Ethernet system that is neither redundant nor sufficiently reliable to meet control system standards.



Description:

Industrial Ethernet defines a set of standards for redundancy and reliability that are required for failsafe operation. This project will install and configure industrial type network switches, and install fiber optic lines to meet the standards for Industrial Ethernet for the treatment plant control system. Additionally software shall be installed to allow remote programming and maintenance.

Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$80,000	\$100,000	\$100,000	\$250,000	\$530,000
FY Total	\$80,000	\$100,000	\$100,000	\$250,000	\$530,000



Laboratory Upgrades and Repair

Project Name	Laboratory Upgrades and Repair	Project No.	7319
Program:	Treatment Plant Program	Phase	C
Sub-Program:	Recurring Renovation	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	65
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

Repair, replace, and/or upgrade the treatment plant laboratory equipment. The laboratory is a critical component to regulatory reporting and the equipment used in this facility is specialized and requires climate control.

History:

The District’s laboratory was built in 2001 and operates several critical systems to maintain the facilities required to conduct testing. Such systems include hot water storage and distribution, compressed air, temperature control (heating and cooling), chiller, ventilation, hoods, vacuum system, and de-ionized water. As these systems age, repairs and/or replacements/upgrades will be needed so that the laboratory remains operational.



Description:

This is a multi-year program to repair and upgrade the laboratory. Project work identified to date includes:

- Corroded hot water heat exchangers and tanks;
- Obsolete and outdated HVAC control systems; and
- Chiller replacement.
- Possible replacement/upgrade of de-ionized tank.

Location:

Laboratory.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$100,000	\$0	\$0	\$0	\$100,000
Construction	\$326,777	\$700,000	\$44,723	\$0	\$1,071,500
FY Total	\$426,777	\$700,000	\$44,723	\$0	\$1,171,500

Plant Energy Optimization

Project Name	Plant Energy Optimization	Project No.	7320
Program:	Treatment Plant Program	Phase	P
Sub-Program:	Recurring Renovation	Priority Rank	Very High
Project Manager:	Craig Mizutani	Ranking Score	55
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

Increase energy efficiency and decrease greenhouse gas emissions for the treatment plant.

History:

The implementation of AB 32 causes energy consumers to evaluate their energy use and develop carbon offsetting efficiencies to comply with new regulations. A number of potential energy efficiency projects are being refined. Many of these concepts are from the 2010 HDR report “AB 32 Compliance and Energy Optimization Evaluation.” These project concepts require further evaluation and an understanding of potential implementation issues before implementation can move forward.

Description:

This project will evaluate proposed energy optimization projects. Many projects include rebates from PG&E. Staff will coordinate work with PG&E in order to obtain rebates and improve the payback of implemented projects. Current proposals to be evaluated include installing variable frequency drives on the furnace’s combustion air blowers and other upgrades as identified by PG&E. As other energy efficiency proposals are made, they will be included in this evaluation project.

Location:

Entire treatment plant.



Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs		Total
Planning	\$80,000	\$50,000	\$0	\$0		\$130,000
Design	\$0	\$0	\$250,000	\$0		\$250,000
Construction	\$0	\$0	\$0	\$1,020,000		\$1,020,000
FY Total	\$80,000	\$50,000	\$250,000	\$1,020,000		\$1,400,000

Fire Protection Phase 2

Project Name	Fire Protection Phase 2	Project No.	7322
Program:	Treatment Plant Program	Phase	D
Sub-Program:	Regulatory Compliance/ Planning/ Safety	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	65
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

To repair, upgrade, or replace the main treatment plant fire alarm system.

History:

The majority of the fire alarm system was built in the late 1970s, and the control panel was upgraded in the early 2000s. However, the wiring and devices on the system continue to be problematic and is in constant need of repair. Repairs to the system have become extremely complex and difficult; therefore, a long term fix is needed.

Description:

At this stage, staff will evaluate the existing system and provide recommendations for full replacement in compliance with the authority having jurisdiction (the local fire department). The construction budget will be revised during the design stage, if needed.



Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$40,000	\$0	\$0	\$0	\$40,000
Design	\$45,000	\$155,000	\$0	\$0	\$200,000
Construction	\$0	\$445,000	\$255,000	\$0	\$700,000
FY Total	\$85,000	\$600,000	\$255,000	\$0	\$940,000

Substation 16 Switchgear Replacement

Project Name	Substation 16 Switchgear Replacement	Project No.	7324
Program:	Treatment Plant Program	Phase	D
Sub-Program:	One-Time Renovation	Priority Rank	Critical
Project Manager:	Brad Leidecker	Ranking Score	65
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

Refurbish and replace critical switchgear and associated equipment that provides electrical service to main areas of the treatment plant.

History:

The switchgear serving the Headworks (Substation 16) was installed in the early 1990s and is comprised of equipment that had a short production run. The Asea Brown Boveri (ABB) switchgear is obsolete and spare parts have become rare. Recent issues with the circuit breakers have revealed that they will only become harder to service. A switchgear assessment performed by CDM Smith in 2011 recommended replacing the switchgear in its entirety to assure reliable service from the influent pumps for the treatment plant.



Description:

The switchgear serving the Headworks (Substation 16) will be replaced. Work includes removal of the existing switchgear and modifications of the building and support facilities as necessary for the installation. The work will be performed by an outside contractor with support from District staff and consultants.

Location:

Headworks Facility.

Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$0	\$0	\$0	\$0	\$0	
Design	\$500,000	\$0	\$0	\$0	\$500,000	
Construction	\$0	\$2,144,000	\$0	\$0	\$2,144,000	
FY Total	\$500,000	\$2,144,000	\$0	\$0	\$2,144,000	



Equipment Replacement

Project Name	Equipment Replacement	Project No.	7326
Program:	Treatment Plant Program	Phase	C
Sub-Program:	Recurring Renovation	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	80
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

Reduce maintenance costs, increase reliability, and improve operations through replacement or reconditioning of technologically obsolete, worn-out, maintenance intensive equipment, or equipment that is no longer supported by its manufacturer.

History:

The initial work on this project assembled a list of current equipment; verified equipment name, number, and size; acquired design records; and estimated equipment life and replacement cost. Several major pieces of equipment are reaching the end of their service life and require replacement/upgrading or reconditioning. This project will be coordinated with the Asset Management Program. It will reduce maintenance costs, increase reliability, and improve operations through replacement or reconditioning of technologically obsolete, worn-out, maintenance intensive equipment, or equipment that is no longer supported by its manufacturer.



Description:

The following are examples of equipment included in the project: 3WHP pumps, influent pump wear rings, 3WLP pump impellers/parts, steam system traps/accessories/piping, Headworks A/C, MCB A/C, Sub 40 A/C, UV lampbank components, MHF emission monitors, pumps, generators, cogeneration equipment, switchgear and UPS batteries, electrical equipment, and other equipment identified through asset management, maintenance, and operations groups.

Location:

Entire Treatment Plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$510,000	\$460,000	\$350,000	\$1,080,000	\$2,400,000
FY Total	\$510,000	\$460,000	\$350,000	\$1,080,000	\$2,400,000

Headworks Screening Upgrade

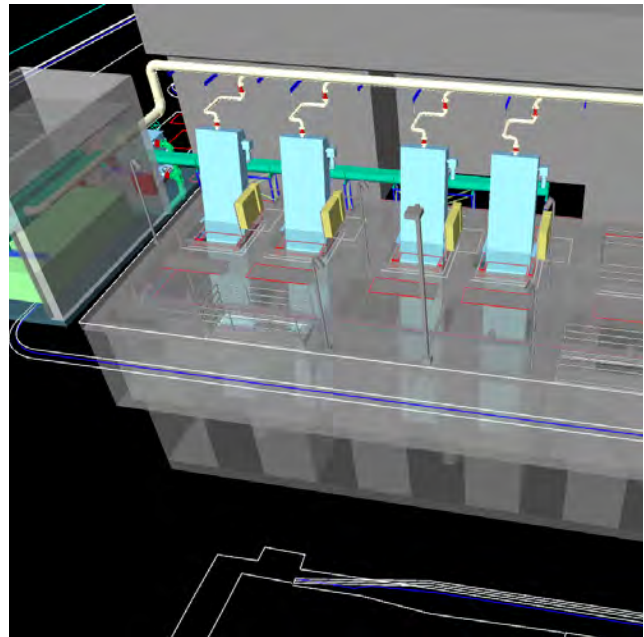
Project Name	Headworks Screening Upgrade	Project No.	7327
Program:	Treatment Plant Program	Phase	D
Sub-Program:	One-Time Renovation	Priority Rank	Critical
Project Manager:	Brad Leidecker	Ranking Score	65
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

To separate and remove screenings and plastics from wastewater and/or sludge.

History:

The treatment plant’s current screenings operation utilizes coarse bar screens at the Headworks to separate screenings. The screenings then are processed by grinders and reintroduce immediately downstream of the screens. This operation does not remove any of the plastics in the wastewater which has contributed to fouling of numerous liquid and solids stream processes and are suspected to potentially contribute to the upcoming HCL furnace emission regulations. Removal of screenings will protect downstream treatment plant facilities, extend equipment life, and reduce maintenance of equipment.



Description:

The project will investigate the current headworks screening operation and recommend the most strategic and cost effective improvements. Following this phase, the project will include design and construction of improvements to implement the recommendations.

Location:

Headworks Facility.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$200,000	\$0	\$0	\$0	\$200,000
Design	\$450,000	\$150,000	\$0	\$0	\$600,000
Construction	\$0	\$1,450,000	\$6,000,000	\$150,000	\$7,600,000
FY Total	\$650,000	\$1,600,000	\$6,000,000	\$150,000	\$8,400,000



Multiple Hearth Furnace Burner Upgrade

Project Name	MHF Burner Upgrade	Project No.	7329
Program:	Treatment Plant Program	Phase	P
Sub-Program:	One-Time Renovation	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	65
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

Improve the operational flexibility of the existing MHFs to meet compliance parameters. Improve utilization of Landfill gas and reduce energy consumption.

History:

The furnaces were constructed during the early 1970s and made operational in 1985. They were originally designed to burn commingled solid waste and sludge; however, they have historically only burned sludge. As a result, some of the burners are not optimally sized for the furnace loading. This results in difficulty maintaining proper temperatures in the furnace. In addition, the existing burners do not allow optimization of landfill gas use. In addition, some of the burners, mounts, piping, and associated equipment are reaching the end of their useful lives and need to be replaced. The fuel gas piping to the burners has developed leaks that require continued attention in order to meet BAAQMD leak guidelines.



Description:

The original gas fuel system piping will be replaced using welded joints, and diesel fuel will be evaluated as an additional fuel source (to allow furnace operations during an emergency). The project will include replacement of existing fuel system components and two to four of the top hearth burners (8 MMBtu/hr) with smaller low NOx/ High mix burners (2 MMBtu/hr). To provide better temperature control to comply with 129 regulations. This will modernize the control system to economize fuel consumption and realize cost savings.

Location:

Solids Conditioning Building.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$30,000	\$0	\$0	\$0	\$30,000
Design	\$0	\$150,000	\$0	\$0	\$150,000
Construction	\$0	\$120,000	\$550,000	\$0	\$670,000
FY Total	\$0	\$270,000	\$550,000	\$0	\$850,000

Piping Renovation, Phase 9

Project Name	Piping Renovation, Phase 9	Project No.	7330
Program:	Treatment Plant Program	Phase	P
Sub-Program:	Recurring Renovation	Priority Rank	Very High
Project Manager:	Brad Leidecker	Ranking Score	55
Department/Division:	Engineering/ Capital Projects	Concord %	100%

Purpose:

To improve the reliability of the piping systems above and below ground in the treatment plant by inspection, renovation, and replacement where required.

History:

During the 5A Project, numerous piping systems were installed throughout the treatment plant. These pipes carry processed wastewater, sludge, steam, air, and other utility services between the various sections of the treatment plant and have been in place for more than 40 years. Some of these pipes are leaking due to corrosion. The first eight phases of this program renovated or replaced various piping systems.

Description:

This phase of the Treatment Plant Piping Renovations Project will include previously identified piping renovations and replacement work not yet included in a construction project.

Location:

Entire treatment plant.



Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total	
Planning	\$0	\$0	\$0	\$0	\$0	
Design	\$0	\$241,000	\$0	\$0	\$241,000	
Construction	\$0	\$0	\$1,359,000	\$100,000	\$1,459,000	
FY Total	\$0	\$241,000	\$1,359,000	\$100,000	\$1,700,000	

Plant Control System I/O Replacement

Project Name	Plant Control System I/O Replacement	Project No.	7339
Program:	Treatment Plant Program	Phase	P
Sub-Program:	One-Time Renovation	Priority Rank	Very High
Project Manager:	Nate Morales	Ranking Score	55
Department/Division:	Operations/ Plant Operations	Concord %	100%

Purpose:

Upgrade the treatment plant Programmable Logic Controller Input and Output (I/O) cards and associated hardware with current technology to maintain reliable operation and vendor support.

History:

The first treatment plant I/O was installed in 1986. The number of I/O cards in use has increased from relatively few to nearly 1,800. Approximately 1,100 of these are currently obsolete. Replacement units cannot be purchased from the manufacturer nor are they fully supported. The District maintains an inventory of over 100 spare I/O cards to replace units as they fail.

Description:

This project will replace and update the treatment plant’s obsolete I/O cards along with their mounting racks, communication modules, and power supplies with modern, fully supported products.

Location:

Entire treatment plant.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$50,000	\$150,000	\$0	\$0	\$200,000
Design	\$0	\$150,000	\$450,000	\$0	\$600,000
Construction	\$0	\$0	\$400,000	\$3,100,000	\$3,500,000
FY Total	\$50,000	\$300,000	\$850,000	\$3,100,000	\$4,300,000

Walnut Creek/Grayson Creek Levee Rehabilitation

Project Name	Walnut Creek/Grayson Creek Levee Rehabilitation	Project No.	7341
Program:	Treatment Plant Program	Phase	P
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	High
Project Manager:	Dan Frost	Ranking Score	40
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

To reduce the risk of flood damage to the treatment plant through a collaborative project led by the Contra Costa County Flood Control and Water Conservation District (FCD).

History:

The treatment plant site is bordered by Walnut and Grayson Creeks with levees that were built by the FCD and US Army Corps of Engineers, and currently owned and maintained by the FCD. Overtopping of the levees could disable the treatment plant and result in significant facility damages, significantly impacting the environment due to discharge of untreated sewage, and impair the local economy. In 2007, the FCD implemented an interim flood control measure to desilt the lower Walnut Creek channel and raise the western levees of Walnut and Grayson Creeks. Based on recent modeling, the levees currently provide protection from a 30-year storm. The current flood protection standard by the California Department of Water Resources is to provide protection against a 200-year water surface with three feet of freeboard and to consider the potential for sea level rise and climate change.



Description:

Due to the layout of treatment facilities as well as the critical nature of them, this project will maximize the treatment plant’s flood protection level for a 500-year water surface with three feet of freeboard. The FCD will be the lead agency on this project and the District will provide support as needed for design review and construction coordination.

The FCD and the District have agreed to equally share the estimated project cost of \$2.2M. The FCD is pursuing grant funding for the project to reduce the costs to the FCD and the District. The District anticipates accepting and storing soil on District buffer property that can be used as levee material in order to provide in-kind contributions of approximately \$500,000. The District will continue to evaluate in-kind financial contributions.

Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$150,000	\$900,000	\$50,000	\$1,100,000
FY Total	\$0	\$150,000	\$900,000	\$50,000	\$1,100,000

Treatment Plant Master Plan

Project Name	TP Master Plan	Project No.	7343
Program:	Treatment Plant Program	Phase	P
Sub-Program:	Regulatory Compliance/Planning/Safety	Priority Rank	Critical
Project Manager:	Dan Frost	Ranking Score	85
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

To develop a Comprehensive Wastewater Master Plan (CWMP) that determines the future direction, capital improvement needs, and priorities for the District’s wastewater treatment plant.

History:

The 2011 Plant of the Future visioning exercises completed as part of District Project 7287 – Treatment Plant Master Plan Update included recommendations for completing a comprehensive master plan to determine the needs and direction of the District. While the District has performed a number of planning and research studies/reports, the last Comprehensive Treatment Plant Master Plan was completed in 1987.



Description:

The Treatment Plant Master Plan is one component of the CWMP. A key deliverable of the Treatment Plant Master Plan will be a CIP for the next 20-year planning horizon that provides the descriptions, rationale, and estimated costs for the District’s treatment plant capital improvement projects and on-going programs in order to address aging infrastructure, meet existing and anticipated regulatory requirements, accommodate planned growth, optimize energy use, and implement the District’s vision for a “plant of the future” that is consistent with the District’s Strategic Plan.

Location:

Entire treatment plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$1,300,000	\$800,000	\$100,000	\$0	\$2,200,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$1,300,000	\$800,000	\$100,000	\$0	\$2,200,000

Wet Scrubber Replacement-LT

Project Name	Wet Scrubber Replacement	Project No.	TBD
Program:	Treatment Plant Program	Phase	C
Sub-Program:	One-Time Renovation	Priority Rank	Critical
Project Manager:	Craig Mizutani	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

Replace the wet scrubbers on each MHF.

History:

The Solids Handling Facilities Plan was updated in 2005. Incinerator Rx and Industrial Furnace Company (IFCO) determined that the MHFs were in excellent condition and could last 20 or more years with current O&M practices. Included in the recommendations was that both the dry cyclone and the wet particulate scrubber were showing signs of wear and could use updating or replacement. Operations staff has also reported problems with the scrubber piping.

Description:

Replace the wet scrubber and their associated piping and equipment on the MHFs. This project will also include potential side stream treatment of the scrubber water as needed to meet operational and regulatory requirements.



Location:

Solids Conditioning Building.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$100,000	\$0	\$0	\$100,000
Design	\$0	\$300,000	\$300,000	\$0	\$600,000
Construction	\$0	\$0	\$300,000	\$8,500,000	\$8,800,000
FY Total	\$0	\$400,000	\$600,000	\$8,500,000	\$9,500,000



CIB-General Improvements Program

The General Improvements Program is primarily concerned with the property, administrative buildings, and management information systems, including IT, asset management, as well as equipment and vehicle needs of the District. This program is comprised of four subprograms which include: 1) Equipment & Vehicle Replacement, 2) Management Information Systems, 3) General Projects, and 4) Asset Management. All projects in the General Improvements Program are summarized; including planned expenditures in the following table:

FY 2016-17 CIB General Improvements Program

Estimated Expenditures

Project Number	Project	Budgeted to Date	Prior Fiscal Years	FY16/17	Future FYs	Project Total
8207	General Security and Access	\$60,000	\$47,616	\$0	\$202,384	\$250,000
8227	GDI Treatment Plant	\$265,000	\$222,444	\$42,556	\$160,000	\$425,000
8230	Capital Legal Services	\$210,000	\$115,495	\$20,000	\$74,505	\$210,000
8232	GDI SMMS Replacement	\$852,000	\$847,335	\$4,665	\$0	\$852,000
8233	CSOD Facility Improvements	\$200,000	\$173,697	\$25,000	\$96,303	\$295,000
8234	HOB Improvements	\$972,000	\$525,000	\$447,000	\$0	\$972,000
8236	District Easements	\$140,000	\$128,750	\$15,000	\$66,250	\$210,000
8237	Buffer and Rental Improvements	\$279,000	\$254,295	\$50,000	\$10,705	\$315,000
8238	Asset Management	\$1,200,000	\$1,189,185	\$800,000	\$710,815	\$2,700,000
8239	POD Office Improvements	\$490,000	\$459,590	\$120,410	\$0	\$580,000
8240	IT Development	\$2,000,000	\$1,538,800	\$900,000	\$6,961,200	\$9,400,000
8242	CMMS Replacement	\$558,000	\$540,980	\$134,020	\$0	\$675,000
8243	Server Room Relocation	\$200,000	\$85,000	\$650,000	\$765,000	\$1,500,000
8516	District Equipment Acquisition	\$450,000	\$400,000	\$76,000	\$524,000	\$1,000,000
8517*	Vehicle Replacement Program	\$0	\$0	\$524,000	\$4,476,000	\$5,000,000
Totals		\$7,876,000	\$6,528,187	\$3,808,651	\$14,047,162	\$24,384,000

*New project included in CIB.

General Security and Access

Project Name	General Security and Access	Project No.	8207
Program:	General Improvements Program	Phase	P
Sub-Program:	General Projects	Priority Rank	Very High
Project Manager:	Tom Godsey	Ranking Score	50
Department/Division:	Engineering/Planning and Development Services	Concord %	TBD

Purpose:

Improve safety for employees and the general public; meet safety standards; reduce the District’s exposure to liability; reduce loss of District’s property; and reduce Operations and Maintenance expenses.

History:

The District has experienced property losses in the past. Improvements to the security system are continually identified and refined. It is possible that additional security measures for essential public service facilities may be required.

Description:

This project potentially includes upgrading alarm systems, adding card readers, adding gates in the perimeter fencing, adding security cameras, and improving lighting, fencing, and/or signage.



Location:

District-wide.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$47,616	\$0	\$0	\$0	\$47,616
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$102,384	\$100,000	\$202,384
FY Total	\$47,616	\$0	\$102,384	\$100,000	\$250,000



Geographic Data Integration Treatment Plant

Project Name	GDI Treatment Plant	Project No.	8227
Program:	General Improvements Program	Phase	C
Sub-Program:	Management Information Systems	Priority Rank	Critical
Project Manager:	Carolyn Knight	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

Support the asset management program by providing an effective means of accessing treatment plant asset data through an interactive map linked to multiple datasets.

History:

The successful implementation of the collection system GDI indicates that a similar web interface for the treatment plant would provide efficient access to asset data. A pilot treatment plant GDI was developed and is currently used by staff.

Description:

Implement a geographically based asset management tool for the treatment plant. The treatment plant GDI will be modeled after the collection system GDI; mirroring the graphic interface and functionality but accessing and delivering treatment plant related data sets.



Location:

Treatment Plant.

Schedule & Budget						
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs		Total
Planning	\$0	\$0	\$0	\$0		\$0
Design	\$222,444	\$42,556	\$120,000	\$40,000		\$425,000
Construction	\$0	\$0	\$0	\$0		\$0
FY Total	\$222,444	\$42,556	\$120,000	\$40,000		\$425,000

Capital Legal Services

Project Name	Capital Legal Services	Project No.	8230
Program:	General Improvements Program	Phase	P
Sub-Program:	General Projects	Priority Rank	N/A
Project Manager:	Russell Leavitt	Ranking Score	N/A
Department/Division:	Engineering/Planning and Development Services	Concord %	TBD

Purpose:

Streamline the processing of legal bills.

History:

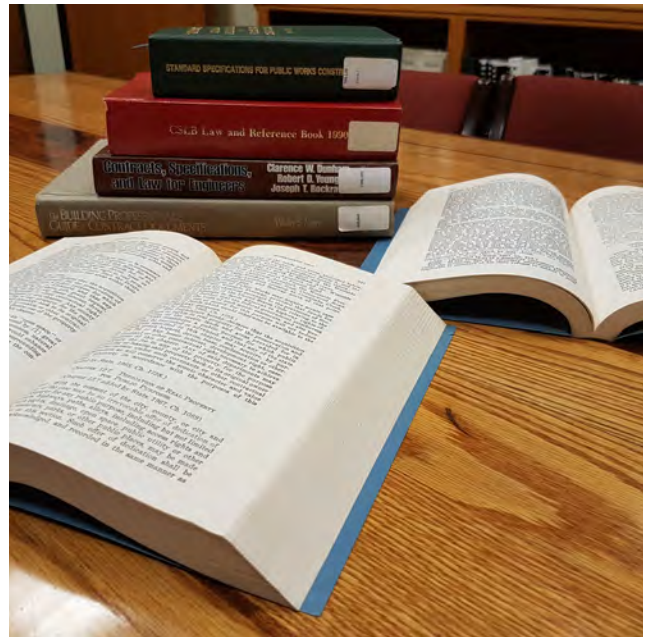
In the past, legal expenses were charged to individual capital projects. This process required extra staff time each month to review legal bills and get approvals from several different project managers.

Description:

Capital legal service expenses are no longer charged to individual capital projects. Instead, legal expenses are charged to one capital account with four charge numbers for the four programs. This reduces the amount of time all parties must spend processing the legal bill.

Location:

District-wide.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$115,495	\$20,000	\$30,000	\$44,505	\$210,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$115,495	\$20,000	\$30,000	\$44,505	\$210,000

Geographic Data Integration-SMMS Replacement

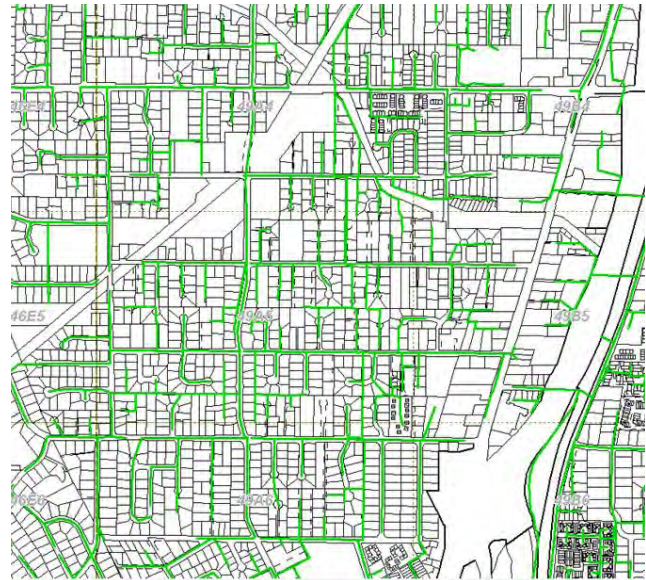
Project Name	GDI-SMMS Replacement	Project No.	8232
Program:	General Improvements Program	Phase	D
Sub-Program:	Management Information Systems	Priority Rank	Critical
Project Manager:	Carolyn Knight	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	50%

Purpose:

Support the asset management program by implementing a new geographic information system to efficiently integrate data to improve productivity and provide a standardized data structure resulting in improved spatial data management.

History:

The District’s GDI was developed to minimize duplicate databases and present valuable information to staff for evaluating assets. GDI was built using various software platforms to integrate information from disparate data sources. Some of the software that is used for GDI’s functionality is no longer supported by vendors.



ESRI software was chosen to replace the existing software

because it is the mapping industry leader and a versatile, expandable solution. Using ESRI software will decrease the need to develop customized code because it integrates easily with other software and provides a variety of software tools to disseminate information.

Description:

GDI will be updated by migrating existing datasets into the new ESRI software platform. Spatial database information will be evaluated to standardize and consolidate data in order to minimize duplication across workgroups. Work flow processes and procedures will be documented to develop clear roles and responsibilities. Detailed specifications will be developed for hardware requirements, as well as any necessary customization for software functionality and maintenance.

Evaluation of web interface tools will be completed to define the optimal solution(s) for presenting information to District staff. Following the evaluation, appropriate tools will be procured and implemented.

Location:

District-wide.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$847,335	\$4,665	\$0	\$0	\$852,000
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$847,335	\$4,665	\$0	\$0	\$852,000

CSOD Facility Improvements

Project Name	CSOD Facility Improvements	Project No.	8233
Program:	General Improvements Program	Phase	C
Sub-Program:	General Projects	Priority Rank	Very High
Project Manager:	Alex Rozul	Ranking Score	55
Department/Division:	Operations/ Collection System Operations Division	Concord %	0%

Purpose:

Improve the safety, reliability, and maintainability of the CSO Division facilities in Walnut Creek, including the vehicle maintenance shop.

History:

This is a multi-year program to construct capital improvements to the CSO Division site in Walnut Creek. Projects will include improvements to the vehicle maintenance shop, which was not included in the CSO Division Administration, Crew and Warehouse Facility Project.

Description:

Minor improvements are budgeted for FY 2015-16. Work includes improving drainage at the Materials Loading Facility.



Location:

1250 Springbrook Road, Walnut Creek.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	-
Design	\$0	\$0	\$0	\$0	-
Construction	\$173,697	\$25,000	\$51,303	\$45,000	\$295,000
FY Total	\$173,697	\$25,000	\$51,303	\$45,000	\$295,000

Headquarters Office Building Improvements

Project Name	HOB Improvements	Project No.	8234
Program:	General Improvements Program	Phase	C
Sub-Program:	General Projects	Priority Rank	Very High
Project Manager:	Edgar Lopez	Ranking Score	50
Department/Division:	Engineering/Capital Projects	Concord %	0%

Purpose:

Improve the safety, serviceability, maintainability, usability, and appearance of the interior and exterior of the HOB.

History:

The HOB was originally built in 1983 and seismically retrofitted in 2014. Although several interior improvements have been recently completed, this project provides for necessary improvements and for future modifications to the building.

Description:

This project will provide for office space improvements in the lower level and for the third floor of the building to accommodate relocating the IT division and newly adopted positions. Work will include new partitions, modifying existing partitions and offices as needed. Security improvements will be coordinated with this project and be added to the scope.



Location:

Headquarters Office Building, Martinez.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$525,000	\$447,000	\$0	\$0	\$972,000
FY Total	\$525,000	\$447,000	\$0	\$0	\$972,000

District Easement Acquisition

Project Name	District Easement Acquisition	Project No.	8236
Program:	General Improvements Program	Phase	P
Sub-Program:	General Projects	Priority Rank	Critical
Project Manager:	Tom Godsey	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	TBD

Purpose:

To improve or acquire new property land rights for existing or new sanitary sewers that are located on private properties and are not associated with a current capital project for sewer renovation work.

History:

As capital projects are designed, sanitary sewer easements may have to be acquired through budgets for those specific projects. This project provides funds for the acquisition of easements for projects where specific funds are not identified in the CIB.

Description:

Easements that may be acquired through this project include:

- Locations where easements need to be purchased for existing sewers;
- Sewers that need upgraded easement rights or access rights;
- Sewers relocated through other public agency projects;
- Outfall Easement Upgrade Project; and
- Recycled Water Program.



Location:

District Service Area.

Schedule & Budget					
Phase:	Prior FYs	FY 16-17	FY 17-18	Future FYs	Total
Planning	\$128,750	\$15,000	\$20,000	46,250	\$210,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$128,750	\$15,000	\$20,000	\$46,250	\$210,000



Buffer and Rental Property Improvements

Project Name	Buffer and Rental Property Improvements	Project No.	8237
Program:	General Improvements Program	Phase	C
Sub-Program:	General Projects	Priority Rank	Critical
Project Manager:	Tom Godsey	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	0%

Purpose:

Protect and enhance the District’s property through additions, improvements, replacements, and extraordinary repairs.

History:

The District owns various properties surrounding the treatment plant, including the Imhoff Triangle, the Kiewit parcel, 4849 Imhoff, 4737 Imhoff, and others. The Kiewit parcel has served as a buffer zone for the treatment plant and has been the site of a clean fill operation for several years. The Imhoff properties also serve as a buffer between the treatment plant and nearby neighborhoods, and are used as rental property and to house some District work groups and equipment.

Description:

This project will fund needed improvements to the buffer, rental properties, and the surrounding parking lots and grounds.

Location:

Martinez.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	-	\$0	\$0	\$0	\$0
Design	-	\$0	\$0	\$0	\$0
Construction	\$254,295	\$50,000	\$10,705	\$0	\$315,000
FY Total	\$254,295	\$50,000	\$10,705	\$0	\$315,000

Asset Management Program Development

Project Name	Asset Management Program Development	Project No.	8238
Program:	General Improvements Program	Phase	C
Sub-Program:	Asset Management Plan	Priority Rank	Critical
Project Manager:	Dana Lawson	Ranking Score	70
Department/Division:	Engineering/Planning and Development Services	Concord %	50%

Purpose:

Develop a comprehensive asset management program to optimize the lifecycle of the District’s assets to deliver high quality and reliable services in a sustainable manner for customers with an acceptable level of risk.

History:

This project builds on the previous Treatment Plant Asset Management Plan, Force Main Assessment, various master plans, and the sewer renovation program.



In FY 2014-15, a consultant was contracted to develop a multi-year implementation plan; Board Policy 15 was adopted regarding asset management; began standardizing codes and cleaning the treatment plant’s asset registrar, assisted with the version upgrade to the plant’s CMMS as well as improving its functionality, updated the pumping station assets; began drafting procedures and data standards; and coordinated access to O&M manuals, shop drawings, reports, etc. through treatment plant GDI.

Description:

The final version of the Asset Management Implementation Plan Summary Report was published in March 2015. The elements identified were assigned by staff to existing projects where applicable, included in maintenance efforts as continuous improvement efforts, and the remaining elements will be completed in this project.

Implementation will require District staff time over the next three years to accomplish such tasks as standardizing and completing the asset register, drafting to consolidate treatment plant as-builts, consolidating CCTV databases, and updating the Asset Management Plan. Specialty tasks that will be managed by District staff but also require outside assistance include utility locating, developing the reliability centered maintenance program, conducting condition assessment of critical treatment plant piping, and may also include integrating failure-based maintenance strategies, developing program management standards or software/tools, and reviewing the asset management plan.

Location:

District-wide.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$1,189,185	\$0	\$0	\$0	\$1,189,185
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$800,000	\$710,815	\$0	\$1,510,815
FY Total	\$1,189,185	\$800,000	\$710,815	\$0	\$2,700,000

Plant Operations Division Office Improvements

Project Name	POD Office Improvements	Project No.	8239
Program:	General Improvements Program	Phase	C
Sub-Program:	General Projects	Priority Rank	Critical
Project Manager:	Brad Leidecker	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

The project's purpose is to make improvements to the interior and exterior of the POD Administration building.

History:

The building is more than 30 years old. There is an ongoing need to renovate or reconfigure office and workstation space to match employee needs and duties, to replace outdated or worn out furniture, meet ADA requirements, and to incorporate new office technologies.

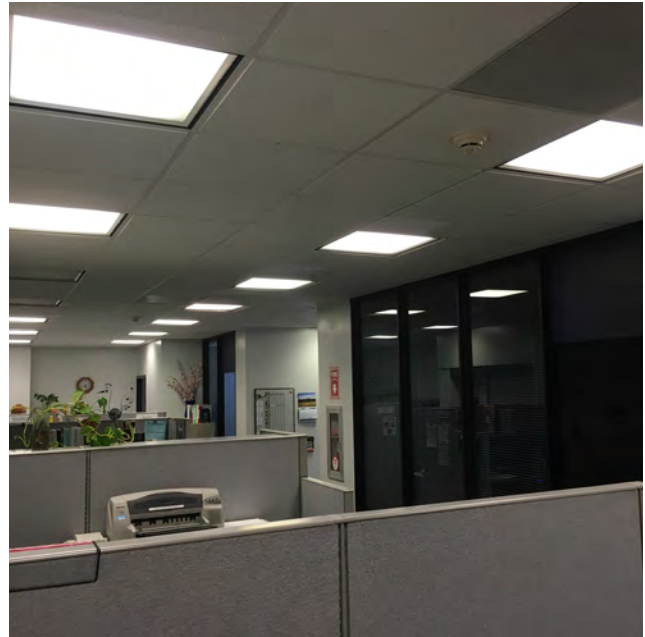
Replacement of carpeting and repainting has been completed. Modular furniture has been replaced in several cubicles.

Description:

This multi-year project will provide an allowance to renovate and upgrade the interior and exterior of the POD Administration offices and the Emergency Operations Center (EOC) located in the Multi-Purpose Room. Anticipated projects include installation of cabinetry for storage of EOC equipment. The Multi-Purpose Room will be evaluated for security improvements.

Location:

Martinez.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$459,590	\$120,410	\$0	\$0	\$580,000
FY Total	\$459,590	\$120,410	\$0	\$0	\$580,000

Information Technology Development

Project Name	Information Technology Development	Project No.	8240
Program:	General Improvements Program	Phase	C
Sub-Program:	Management Information Systems	Priority Rank	Critical
Project Manager:	John Huie	Ranking Score	70
Department/Division:	Administration	Concord %	50%

Purpose:

To replace and upgrade IT infrastructure and software as needed.

History:

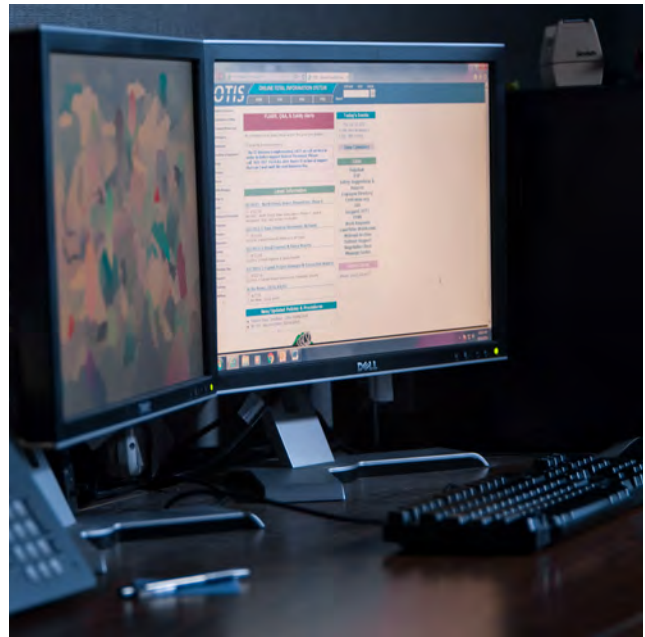
An Information Technology Development Plan was developed to centralize efforts and funding in the development of computer and telecommunication technology within the District. The District budgets IT on a yearly basis. The IT Master Plan was approved in 2015 and its implementation is within the CIB and the 10-year plan.

Description:

This project is the implementation of the IT Master Plan.

Location:

District-wide.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$1,538,800	\$900,000	\$1,300,000	\$5,661,200	\$9,400,000
FY Total	\$1,538,800	\$900,000	\$1,300,000	\$5,661,200	\$9,400,000

Computerized Maintenance Management System Replacement

Project Name	CMMS Replacement	Project No.	8242
Program:	General Improvements Program	Phase	C
Sub-Program:	Management Information Systems	Priority Rank	Critical
Project Manager:	Dana Lawson	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	50%

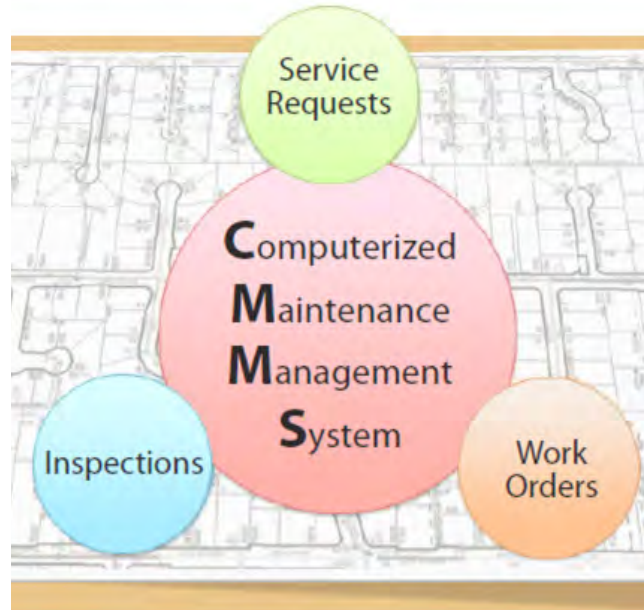
Purpose:

Support the asset management program by replacing the CMMS for both the collection system and treatment plant.

History:

District Project 8232, GDI-SMMS Replacement, replaced the unsupported GIS software versions with a new fully-supported ESRI platform. The migration to ESRI has been completed.

The current CMMS for the collection system is no longer vendor-supported. Additionally, consolidating all assets into one state-of-the-art, supported system will more effectively manage the lifecycle cost of owning and operating these assets in support of the District’s mission. This project also supports Strategic Goal No. 6, Strategy 1, through a specific key performance indicator in the Plan.



Description:

This project will continue consolidating software systems by procuring, migrating data, configuring and implementing an effective CMMS solution that encompasses all District assets (collection, distribution, treatment, pumping station, fleet, etc.) and efficiently integrates with the GIS. The collection system will be migrated and configured first, followed by the treatment plant and pumping station assets.

Location:

District-wide.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$40,980	\$0	\$0	\$0	\$40,980
Construction	\$500,000	\$134,020	\$0	\$0	\$634,020
FY Total	\$540,980	\$134,020	\$0	\$0	\$675,000

Server Room Relocation

Project Name	Server Room Relocation	Project No.	8243
Program:	General Improvements	Phase	P
Sub-Program:	General Projects	Priority Rank	Critical
Project Manager:	Jason DeGroot	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	50%

Purpose:

Relocate all computer/server/network equipment and related equipment from its current location in the POD basement to a suitable location.

History:

In FY 2014-15, the project was initiated after a major IT server failure at the main network facility. The existing room is a decommissioned laboratory facility which is vulnerable to several processes and other water pipelines.

Description:

At this time, this project will evaluate alternatives and possible locations to relocate the District’s main server equipment and consider future IT requirements. Upon the results of this evaluation, staff will prioritize and update the costs and future schedule for any capital improvements recommended.



Location:

Treatment Plant.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$85,000	\$0	\$0	\$0	\$85,000
Design	\$0	\$250,000	\$0	\$0	\$250,000
Construction	\$0	\$400,000	\$765,000	\$0	\$1,165,000
FY Total	\$85,000	\$650,000	\$765,000	\$0	\$1,500,000



District Equipment Acquisition

Project Name	District Equipment Acquisition	Project No.	8516
Program:	General Improvements Program	Phase	P
Sub-Program:	Vehicles and Equipment Acquisition	Priority Rank	Very High
Project Manager:	Amal Lyon	Ranking Score	55
Department/Division:	Administrative/Finance and Accounting	Concord %	TBD

Purpose:

To provide new, safe, and cost-effective equipment for District operations.

History:

A project is developed on a yearly basis to procure required equipment throughout the District.

Description:

The following new equipment is scheduled to be purchased in FY 2016-17:

- POD Battery Load Tester (\$16,500);
- POD Digital Ultrasonic Inspection System (\$6,500);
- POD Bed Mill (\$45,000); and
- \$8,000 Contingency.



Location:

District-wide.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$400,000	\$76,000	\$100,000	\$424,000	\$1,000,000
FY Total	\$400,000	\$76,000	\$100,000	\$424,000	\$1,000,000

Vehicle Replacement Program

Project Name	Vehicle Replacement Program	Project No.	8517
Program:	General Improvements Program	Phase	C
Sub-Program:	Vehicles and Equipment Acquisition	Priority Rank	Very High
Project Manager:	Amal Lyon	Ranking Score	55
Department/Division:	Administrative/Finance and Accounting	Concord %	TBD

Purpose:

To provide the District with safe and cost-effective vehicle replacement.

History:

In the past, a yearly project was developed to procure required equipment and vehicles throughout the District. This fiscal year, the District will budget and acquire vehicles under a separate project and use asset management principles and historic replacement costs to provide an effective replacement strategy for vehicles.

Description:

The following vehicles are scheduled to be purchased in FY 2016-17:

- CSO Mid-Size 2x4 Truck (\$33,000);
- CSO 1/2 Ton 4x4 Truck (\$40,000);
- CSO 3/4 Ton 2x4 Truck w/Crane (\$37,000);
- CSO Vactor “Ramjet” Jet Rodder (\$375,000);
- POD 2 Qty. Cushman Titan 36 volt Flatbed Cart (\$9,500 ea.); and
- \$20,000 Contingency.



Location:

District-wide.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$524,000	\$500,000	\$3,976,000	\$5,000,000
FY Total	\$0	\$524,000	\$500,000	\$3,976,000	\$5,000,000

CIB-Recycled Water Program

The District currently delivers about 200 million gallons per year of recycled water to 35 customers located within the Zone 1 service area for landscape irrigation and commercial uses. These customers are located along the Interstate 680 corridor in Pleasant Hill, Concord, and Martinez. The District also uses about 400 million gallons per year at the treatment plant for process water and District property landscape irrigation. The RWQCB encourages the District to expand its recycled water program, and activities must be reported annually to the RWQCB. The District continues to pursue a number of projects as described in the following pages.

The major emphasis of the Recycled Water Program for the next fiscal year will be supporting the recycled water elements included in the CWMP Project and connecting individual customer sites within the Concord Landscape Project. The District will also continue efforts to add new cost effective customers in the District's Zone 1 service area, pursue outside funding assistance (such as federal and state grants for all District recycled water projects), and work with water supply agencies to develop recycled water supply alternatives. Alternative supply opportunities may include a small-scale refinery project to wholesale about 0.5 MGD to CCWD out of our existing treatment facilities, expansion of the District's residential customer recycle water fill station, as well as adding hydrants to distribute recycled water for commercial use.

FY 2016-17 CIB Recycled Water Program/Project Summary

Estimated Expenditures

Project Number	Project	Budgeted to Date	Prior Fiscal Years	FY16/17	Future FYs	Project Total
7300	Refinery REW	\$595,000	\$355,642	\$40,000	\$199,358	\$595,000
7306	Zone 1 Recycled Water	\$395,000	\$237,005	\$37,815	\$385,180	\$660,000
7344	Recycled Water Planning	\$100,000	\$50,000	\$102,185	\$347,815	\$500,000
7345	Filter Plant	\$200,000	\$200,000	\$200,000	\$150,000	\$550,000
7346	Surge Analysis 16-17	\$0	\$0	\$55,000	\$45,000	\$100,000
7347*	Rew Automated Fill Station	\$115,000	\$100,000	\$15,000	\$0	\$115,000
7350*	Residential Fill Station Improv	\$450,000	\$400,000	\$50,000	\$0	\$450,000
Totals		\$1,855,000	\$1,342,647	\$500,000	\$1,127,353	\$2,970,000

*New project included in CIB.

Refinery Recycled Water Project

Project Name	Concord Naval Weapons Station Recycled Water Planning	Project No.	7300
Program:	Recycled Water Program	Phase	P
Sub-Program:	Urban Landscaping	Priority Rank	Very High
Project Manager:	Melody LaBella	Ranking Score	50
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

Determine the feasibility of providing recycled water to the Shell and/or Tesoro refineries in Martinez.

History:

Staff has worked with CCWD and refinery staff to determine if and how recycled water might fit into future water supply scenarios. The two refineries use a combined total of approximately 22,500 acre feet per year of Delta water of which some portion could be replaced with recycled water. In 2011, the District was awarded a grant from the U.S. Bureau of Reclamation to prepare a feasibility study and environmental documentation.

The feasibility study closeout report was submitted in March 2014. Staff has pursued a variety of federal and state funding sources in an effort to improve the economics of a potential project. Some infrastructure required for this project already exists, but new treatment facilities are needed to meet refinery water quality requirements.



Description:

District staff will work with CCWD to develop a project to serve the refineries; such a project could range from 0.5 MGD to complete replacement of the refineries’ Delta water. The District will continue pursuit of funding options in coordination with CCWD for the development of a larger-scale refinery project that may include the construction of new recycled water treatment facilities including nitrification, filtration, and disinfection facilities and possibly denitrification facilities. Depending on the volume of recycled water served, the total estimated project cost could range from \$31 to \$100M. At this time, the budget includes project planning activities and to pursue funding and project partners.

Location:

Martinez.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$355,642	\$40,000	\$40,000	\$159,358	\$595,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$355,642	\$40,000	\$40,000	\$159,358	\$595,000

Zone 1 Recycled Water – Phase 1C

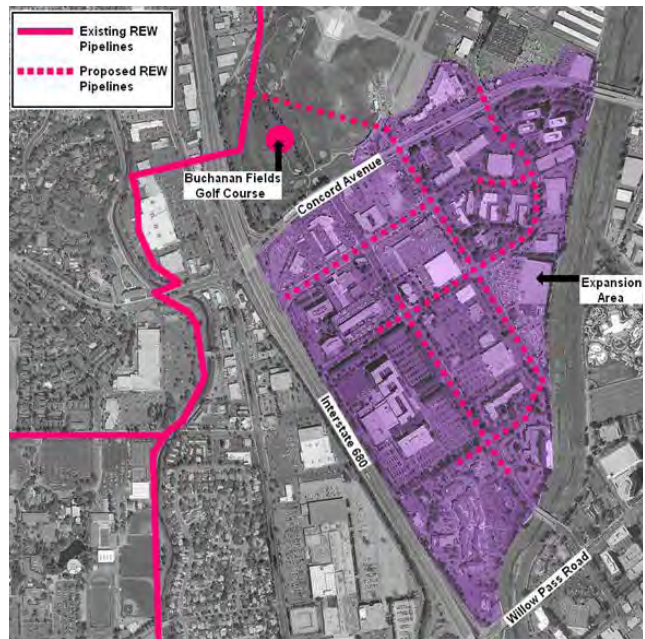
Project Name	Zone 1 Recycled Water – Phase 1C	Project No.	7306
Program:	Recycled Water Program	Phase	C
Sub-Program:	Urban Landscaping	Priority Rank	Very H
Project Manager:	Melody LaBella	Ranking Score	50
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

Provide recycled water for landscape irrigation and other identified uses in the Zone 1 Project area, which includes Pleasant Hill and portions of Concord and Martinez.

History:

In 2001, the District completed the Zone 1 Implementation Plan that provided estimated connection costs and revenues for customers identified in the CCWD Zone 1 Project Agreement. Depending on the extent of use, demand for recycled water in Zone 1 for landscape irrigation and commercial uses could be up to 400 million gallons per year. New customers will continue to be added to the system where technically and economically feasible. The District is focusing on connecting cost-effective landscape irrigation sites near existing recycled water distribution pipelines.



Description:

This project provides funds for the planning, design, and construction of recycled water facilities for landscape irrigation customers and other identified uses in the Zone 1 Project area. Subsequent phases of this project continue in future fiscal years.

Location:

Cities of Pleasant Hill, Concord, and Martinez.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$117,005	\$0	\$0	\$0	\$117,005
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$120,000	\$37,815	\$60,000	\$325,180	\$542,995
FY Total	\$237,005	\$37,815	\$60,000	\$325,180	\$660,000

Recycled Water Planning

Project Name	Recycled Water Planning	Project No.	7344
Program:	Recycled Water Program	Phase	P
Sub-Program:	Urban Landscaping	Priority Rank	Critical
Project Manager:	Melody LaBella	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

Develop and implement a comprehensive long-term Recycled Water Program that provides recycled water for landscape irrigation, industrial reuse, and other applications.



History:

The District has worked with local water purveyors over the years to develop partnerships and identify opportunities to expand recycled water use. Recent planning efforts have focused on the refinery recycled water project; the use of recycled water on buffer properties near the treatment plant; the use of satellite treatment facilities to provide recycled water to landscape irrigation customers in remote areas; other recycled water projects outside the District’s existing Zone 1 Project Area; and work to comply with State Water Resources Control Board requirements for salt and nutrient management plans.

Description:

This project will continue efforts to increase the demand for recycled water. Planning studies will be performed for the District’s recycled water program to address implementation issues such as funding, regulations, treatment technologies, developing policies (i.e. satellite recycled water facilities), public education, and gaining political support from public agencies.

Location:

Entire Service Area.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$50,000	\$102,185	\$100,000	\$247,815	\$500,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$50,000	\$102,185	\$100,000	\$247,815	\$500,000



Filter Plant

Project Name	Filter Plant	Project No.	7345
Program:	Recycled Water Planning	Phase	P
Sub-Program:	Urban Landscaping	Priority Rank	Critical
Project Manager:	Nitin Goel	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

This project will evaluate existing recycled water facilities at the treatment plant, and evaluate alternatives related to zero-discharge.

History:

The CWMP will provide a framework for the future management of the District’s collection system and treatment plant. Included in this effort is an evaluation of the recycled water facilities.

Description:

This project provides the funding for the CWMP consultant to conduct the evaluations and other work related to recycled water facilities.

Location:

Treatment Plant.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$200,000	\$0	\$0	\$0	\$200,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$200,000	\$150,000	\$0	\$350,000
FY Total	\$200,000	\$200,000	\$150,000	\$0	\$550,000

Surge Analysis

Project Name	Surge Analysis	Project No.	7346
Program:	Recycled Water Planning	Phase	P
Sub-Program:	Urban Landscaping	Priority Rank	Critical
Project Manager:	Nitin Goel	Ranking Score	65
Department/Division:	Engineering/Planning and Development Services	Concord %	100%

Purpose:

Conduct a surge analysis of the recycled water distribution system.

History:

The distribution system has experienced a number of pipeline breaks over the last few years. Analysis of the circumstances surrounding many of these issues has been a concern with pressure fluctuations.

Description:

This project will analyze the distribution system, including pumping to determine if any improvements are needed to ensure the long-term integrity of the recycled water pipeline system.

Location:

Treatment Plant.



Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$55,000	\$45,000	\$0	\$100,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$0	\$55,000	\$45,000	\$0	\$100,000



Recycled Water Commercial Truck Fill Station

Project Name	Rew Commercial Truck Fill Station	Project No.	7347
Program:	Recycled Water	Phase	C
Sub-Program:	Urban Landscaping	Priority Rank	Critical
Project Manager:	Nathan Hodges	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

Increase the commercial use of recycled water through the Recycled Water Truck Filling Program (Fill Program). In addition, the pilot automated fill station will lower the need for additional meters and improve the process to obtaining recycled water.

History:

The Fill Program is one of the programs employed by the District to deliver recycled water in Zone 1. The District currently has three recycled water hydrants that contractors utilize for commercial or construction activities. Since California’s drought declaration, the demand for using recycled water hydrants has outpaced the supply of available meters. This demand is attributed to a combination of water districts not distributing potable water meters for construction-related use and an increase in construction activity. Under pilot conditions, the District has approved the automated system and will distribute free recycled water to commercial users.



Description:

This project will install a packaged automated commercial recycled water truck fill station within the Kiewit property. The automated fill station will be connected to the existing recycled water hydrant. The fill station comes complete with mechanical and instrumentation/control components. The automated fill station registers users into the system and provides each user with a unique PIN code that can track the quantity of recycled water dispensed.

Location:

Martinez.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$10,000	\$0	\$0	\$0	\$10,000
Design	\$25,000	\$0	\$0	\$0	\$25,000
Construction	\$65,000	\$15,000	\$0	\$0	\$80,000
FY Total	\$100,000	\$15,000	\$0	\$0	\$115,000

Residential Fill Station Improvements

Project Name	Residential Fill Station Improvements	Project No.	7350
Program:	Recycled Water Planning	Phase	P
Sub-Program:	Urban Landscaping	Priority Rank	Critical
Project Manager:	Nathan Hodges	Ranking Score	65
Department/Division:	Engineering/Capital Projects	Concord %	100%

Purpose:

Install additional recycled water facilities to meet increased demand and reduce wait times for residential fill station customers.

History:

In 2014 the District opened residential recycled water fill stations at the Household Hazardous Waste Facility (HHW) to address the emergency drought conditions for District customers. During 2015, the District experience and significant demand for residential recycled water. Additional fill stations were added at HHW and fill station traffic was adjusted to safely handle the nearly 500 vehicle trips per day at peak usage. Temporary staff was brought in to assist with the training, traffic, and management of the filling operation. Filling hours were extended to seven days a week to address the demand. At peak usages customers still had to wait an hour before reaching a filling station.



Description:

This project will evaluate alternatives for providing additional residential recycled water to shorten the wait times and better meet customer demand for recycled water. One alternative to be evaluated is to connect to the treatment plant’s utility water system, extend a line across Imhoff Place, and run the line to the Imhoff Place frontage road. A second alternative to be evaluated will be to install additional infrastructure (including paving) on the Kiewit property to accommodate residential users and to utilize existing fill station connections. Designs and cost estimates will be developed in order to recommend an alternative for implementation. Construction will follow as soon as possible in order to provide the additional water this summer.

Location:

Martinez.

Schedule & Budget					
Phase:	Prior FYs	FY 2016-17	FY 2017-18	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$400,000	\$50,000	\$0	\$0	\$450,000
FY Total	\$400,000	\$50,000	\$0	\$0	\$450,000

Ten-Year Capital Improvement Plan

Purpose

The District has developed a ten-year Capital Improvement Plan (CIP) for the District's capital facilities and financing needs. The CIP is updated every year. Specifically, the plan identifies and prioritizes capital projects needed to accomplish the District's mission. It also includes cost estimates for proposed project work and projections for the various sources of revenue needed to meet the cash flow requirements of the CIP.

The principal purpose of the CIP is to provide the District's Board of Directors with the information needed to formulate long-range policy regarding:

- Priority and Schedule – identify, prioritize, and schedule the projects necessary to accomplish the District's mission.
- Financing – plan sufficient financial resources for completion of the projects proposed in the CIP.

The following discussion provides: 1) a general description of the plan; and 2) a discussion of potential, unbudgeted future projects.

CIP Objectives

The District has identified four principal objectives for its CIP:

- Support the District's mission to protect public health and the environment including:
 - Collecting and treating wastewater; and
 - Being a high performance organization that provides exceptional customer service and regulation compliance at responsible rates.
- Accommodate future growth in the service area as approved by the city and county planning agencies responsible for land use policy decisions.
- Respond to issues of community concern by:
 - Managing the cost of operating and maintaining facilities;
 - Reducing objectionable odors;
 - Cooperating with other public agencies to avoid duplication of effort and improve service delivery; and
 - Reducing power consumption through energy management.
- Asset Management.

CIP Budget Process

This CIP assumes that funds will be available to support the plan. These funds come from all of the sources of revenue as discussed in the Finance and Revenue section. The only two discretionary sources of revenue are the sale of bonds or adjustment of the capital component of the SSC. This document is for planning purposes only. The Board of Directors have not yet voted to sell bonds to fund this planned program. The plan is currently funded on a year-by-year basis when the CIB for the upcoming fiscal year is formally authorized and adopted by the Board. Changes in capital revenue forecasts or changes in recommended expenditures may result in changes to this Ten-Year Plan.

Comprehensive Wastewater Master Plan

The District started working on a CWMP project in June 2016. This project is developing a CWMP that will determine the future capital improvement needs, and priorities for the District’s collection system, wastewater treatment plant, and recycled water facilities. This project is expected to be completed in 2017.

The majority of the District’s existing treatment plant facilities were constructed in the late 1970s and early 1980s following the passing of the Clean Water Act, and some of the collection system facilities and piping were constructed as early as the 1940s and 1950s. The District recognizes the need to address aging infrastructure and, as a result, is developing an Asset Management Plan. Due to potential changes in future state and/or federal water, air, and solids regulations, there is a need to develop a CWMP that coordinates regulatory-driven changes with aging infrastructure needs and other capacity related and optimization improvements. Potential regulatory changes include:

- Changes to existing final effluent limits to address nutrients, selenium, contaminants of emerging concern, and others;
- Changes to California/National Toxics Rules, 303 (d) listed pollutants and micro pollutants, and new virus-based disinfection criterion;
- Reductions in greenhouse gas emission cap and trade program thresholds;
- Compliance with Federal 129 sewage sludge incineration rules, changes to air emission limits, and biosolids handling/management and disposal regulations;
- Recycled water, including potential coordinated projects with water agencies on indirect and even direct potable reuse requirements; and
- Collection system regulatory requirements.

A key deliverable of the CWMP will be a recommended CIP for the next 20-year planning horizon. The recommended CIP will include descriptions, rationales, and estimated costs for collection system and wastewater treatment plant capital improvement projects and ongoing programs in order to address aging infrastructure, meet existing and anticipated regulatory requirements, accommodate planned growth, optimize energy use, and implement the District’s vision for a “plant of the future” that is consistent with the District’s Strategic Plan. For example, the CWMP will be a critical tool used by the District to implement the following strategies from the District’s Strategic Plan (Fiscal Year 2016-17):

- Meet regulatory requirements for the good of the community and environment by striving to achieve 100% permit compliance in air, water, land, and other regulations, and by striving to reduce the number of sanitary sewer overflows by continuing Best Management Practices;
- Be a leader in the wastewater industry by using sustainable practices that minimize waste, maximize resources, protect the ratepayer, improve the community, and embrace innovation; and
- Maintain reliable wastewater infrastructure by updating the CIP through prioritization, risk analysis, while focusing on the sustainability of customer service, environmental needs, and economic demands.



The CWMP is critical for maintaining a high level of service, establishing long term, fiscally responsible policies for our customers, and providing a clear direction for the District. To accomplish this, the CWMP will:

1. Confirm CIP projects, costs, and site layouts for future facilities.
2. Identify linkages among the major capital improvement projects and repair and replacement strategies such that the projects can be resorted and rescheduled as changes in planning assumptions and needs occur.
3. Identify triggers for implementing applied research (if applicable), preliminary design, design, and construction of the recommended capital improvement projects in order to determine efficient “just-in-time” project implementation.
4. Identify new or updated policies, programs, and guidelines for Board consideration to address overall program implementation including project prioritization, implementation costs, project delivery methods, potential funding sources, and an estimated schedule for implementing plan elements.
5. Confirm and incorporate operations, maintenance, and energy management strategies.
6. Accelerate and coordinate condition assessments with implementation of the Asset Management Plan and confirm long-term repair and replacement strategies.

Some of these potential future projects are not currently included in the District’s CIP, which will be updated annually as projects are clarified and coordinated with the District’s CWMP.

Ten-Year CIP Drivers

Drivers for the CIP

Capital improvement projects are identified by four major drivers: Replacement and Rehabilitation, Regulatory, Sustainability/Energy/Optimization, and Capacity Expansion. Below is a brief discussion of each driver.

1. Replacement and Rehabilitation

This category focuses on projects related to aging infrastructure and the replacement requirements of the District. The District operates and maintains approximately \$3.6 billion of assets, and several projects in each program have been initiated or in progress to meet the replacement or rehabilitation of the District's infrastructure.

2. Regulatory

This category ensures that the District remains in full regulatory and safety compliance with all applicable regulations.

3. Sustainability/Energy/Optimization

This category focuses on projects that optimize existing processes, energy efficiency, and/or sustainability of the treatment plant or collection system and other facilities.

4. Capacity Expansion

The capacity expansion projects are developed to upgrade and improve existing facilities to meet increasing flow due to in-fill, new development, and wet weather.

As projects develop and are prioritized, they are then grouped into the four programs as shown in the CIB: 1) Treatment Plant Program; 2) Collection System Program; 3) General Improvements Program; and 4) Recycled Water Program. A brief description of each program and a list of projects for the 10 years of this plan are provided in the Capital Plan sections for each of the four programs.



CIP - Treatment Plant Program

The Treatment Plant Program includes projects that will meet changing regulatory mandates, address recurring renovation needs, and upgrade the treatment plant in areas such as hydraulic/process and solids handling. The emphasis of the Treatment Plant Program will be on the renovation needs of the aging infrastructure of our complex treatment facility and on meeting increasingly stringent regulatory requirements. The CWMP started in July 2015 and will be completed in spring 2017. This Master Plan effort will help the District coordinate and evaluate past studies and planning work and provide new condition assessments to produce a future CIP. The information presented in the FY 2016-17 CIP has been coordinated with the Master Plan and Asset Management efforts to date and revised for future projects.

Capacity improvements will be primarily limited to those needed for the solids handling processes and to handle wet weather flows. One large regulatory project facing the District in the next 10 to 20 years: the Nutrient Removal Project. Staff will continue to evaluate treatment alternatives and pilot programs in anticipation of possible regulatory changes and to help identify improvements and process capabilities. These projects will include nutrient removal, alternative energy, and/or solids handling.

This section is a listing of the projects in the 10-year CIP that pertain to the District's treatment plant. The CIP is based on the recognition that treatment plant facilities require ongoing renovations and replacement. Environmental regulations will likely become more stringent in the future, and the District is on a gradual but steady pace towards build-out over the next 20 years. Major emphasis is on maintaining existing assets, improving processes when cost effective, and ensuring regulatory compliance.

Replacement and Rehabilitation

The goals of this category are to provide for ongoing or future renovation activities. This category provides capital funds for replacement or rehabilitation of aging treatment plant infrastructure. The projects include Equipment Replacement, Piping Renovations and Replacement, Electrical and Instrumentation Replacement, and Electrical Switchgear Project.

Regulatory

The goals of the Regulatory and Safety projects are to ensure that existing and future facilities meet safety and regulatory requirements. These projects cover a wide variety of subjects to improve facilities for safety reasons, to reduce emissions of pollutants to the environment, and to meet future regulatory requirements. Budgeted projects to address regulatory requirements include the wet and dry scrubber replacement, headworks screening removal, MHFs improvements (emissions requirements), outfall improvements, and soil remediation.

Sustainability/Energy/Optimization

The goals of the Sustainability/Energy/Optimization projects are to continue upgrading and improving the treatment plant's existing infrastructure and systems to optimize for energy use, lower maintenance costs, and prevent major failures at the treatment plant. Projects in this category include seismic improvements, centrifuge and cake pump upgrades, plant energy optimization, and aeration system improvements.

Capacity Expansion

The goals of the expansion projects are to upgrade and improve existing facilities to meet increasing flow due to development in-fill, new development, and wet weather.

The following tables identify specific projects in the CIP Treatment Plant program per driver:

Treatment Plant Replacement and Rehabilitation Projects – 2016-2026 Capital Improvement Plan

Project Title	Year	Location	Description
Piping Renovations and Replacement Program	2016 through 2026	Entire Treatment Plant	This ongoing project will improve the reliability of treatment plant piping systems above and below ground by inspection, renovation, and replacement where required. The Asset Management Plan and the Comprehensive Wastewater Master Plan will ultimately be used to provide recommendations for additional renewal and replacement needs of major piping systems.
Treatment Plant Equipment Replacement	2016 through 2026	Entire Treatment Plant	Investigate and replace plant equipment to reduce maintenance costs, increase reliability, and improve treatment operations through replacement or reconditioning of technologically obsolete, worn out, maintenance-intensive equipment, or equipment that is no longer supported by its manufacturer. The Asset Management Plan and the Comprehensive Wastewater Master Plan will ultimately be used to provide recommendations for additional renewal and replacement needs of major equipment.
Plant Electrical and Instrumentation Replacement	2016 through 2026	Entire Treatment Plant	The project will identify deficiencies in the electrical, instrumentation, and control (EI&C) systems in the Treatment Plant and rectify the issues. The Asset Management Plan and the Comprehensive Wastewater Master Plan will ultimately be used to provide recommendations for additional renewal and replacement needs of the EI&C systems.
Treatment Plant Protective Coating Renovation	2016 through 2026	Entire Treatment Plant	The Asset Management Plan Project is documenting the condition of District facilities and equipment and will be used to recommend needed coating projects.



Treatment Plant Regulatory and Safety Projects – 2016-2026 Capital Improvement Plan

Project Title	Year	Location	Description
Nitrification	2023	Aeration Basins and Clarifiers	There are a number of potential regulatory changes that may be implemented within the next ten years. These changes may include requirements that will necessitate the District to remove ammonia and other nutrients from effluent flow in the future. This will require either an expansion of the aeration tanks and clarifiers or use of other technologies and significant capital expenditures. The Comprehensive Wastewater Master Plan will ultimately be used to provide recommendations for nutrient removal improvements and update the CIP.
Disinfection	2024	Ultraviolet Disinfection	Depending on future regulatory requirements and necessary modifications to the treatment plant, an alternative disinfection method may be required. The Asset Management Plan and the Comprehensive Wastewater Master Plan will ultimately be used to provide recommendations for the renewal and replacement of the disinfection system.
New Solids Handling Facilities (MHF/ Digesters)	2023	Entire Treatment Plant	There are a number of potential regulatory changes that may be implemented within the next ten years. These changes may include requirements that will necessitate replacement of the existing Multiple Hearth Furnaces with Fluidized Bed Incinerators, or construction of Anaerobic Digesters, or a combination thereof, use of other available technology for treatment and disposal of sludge. These anticipated changes in solids handling will require significant capital expenditures in the next fifteen years. The Comprehensive Wastewater Master Plan will ultimately be used to provide recommendations for solids handling improvements and update the CIP.
TP Safety Improvements Program	Ongoing	Entire Treatment Plant	Improvements will be made to enhance and provide a safe working environment throughout the treatment plant.
Future Regulatory Projects	2021	Entire Treatment Plant	Potential new regulations that impact operation of the treatment plant will emerge in the future. The Comprehensive Wastewater Master Plan will ultimately be used to provide recommendations for handling improvements required to meet future regulations and update the CIP.
Primary Treatment Covers	2022	Primary Sed Basins	Primary tanks may need to be covered to meet regulations and reduce odors.
Treatment Plant Hazard Identification and Remediation, Phase 2	2020	Entire Treatment Plant	This project will identify and remediate hazardous materials within the treatment plant. This will minimize the exposure of the District's employees to hazardous materials during the course of their work.
Treatment Plant Soil Remediation, Phase 2	2023	Area east of existing aeration tanks	The soil east of the existing aeration tanks is contaminated. To expand the aeration tanks in preparation for plant conversion for nitrification, the contaminated soil will have to be either treated on site or removed and disposed at an appropriate-class landfill.

Treatment Plant Sustainability/Energy/Optimization Projects – 2016-2026 Capital Improvement Plan

Project Title	Year	Location	Description
SCB Seismic Improvements	2022	Solids Conditioning Building	Design and construct seismic improvements based upon the recommendations provided in work done under the Treatment Plant Seismic Evaluation Project (DP 7267). The improvements will meet requirements of the latest building codes. Timing/need for this project will be coordinated with the recommendations from the New Solids Handling project.
Furnace Burner	2019	Solids Conditioning Building	Modifications will be made to ensure compliance with emerging regulations. This project will improve operational flexibility of the multiple hearth furnaces by adding auxiliary fuel delivery, piping and burners, and the ability to co-fire natural and landfill gases for the furnaces.
Warehouse Seismic Upgrade	2019	Warehouse/ Mechanical Shop	This project will design and construct seismic improvements based on the recommendations provided in work done under the Treatment Plant Seismic Evaluation Project (DP 7267). The improvements will meet requirements of the latest building codes.
Alternative Energy Facilities, Phase 2	2022	Entire Treatment Plant	This project includes evaluation and replacement of the District's cogeneration unit with a new, more efficient power generation unit or use of an alternative energy source.
Aeration System Renovation, Phase 2	2019	Pump and Blower Building and Primary Tanks area	This project will design and construct small electric blowers for the grit chambers and will optimize use of existing steam blowers and modify the existing electric blower. Adding nitrification and/or nutrient removal to the treatment process will have a major impact on the aeration system and will need to be evaluated.
Secondary Process Improvements, Phase 2	2020	Aeration Basins and Clarifiers	This project will replace and modify existing piping and components of the secondary process to extend the life of the system and add flexibility to the selector channel.
Laboratory Seismic Upgrade	2024	Laboratory	This project will design and construct seismic improvements based on the recommendations provided in work done under the Treatment Plant Seismic Evaluation Project (DP 7267). The improvements will meet requirements of the latest building codes.



CIP - Collection System Program

The Collection System Program includes projects needed to renovate aging sewers and to serve new development in the District's service area. Specific near term and long term goals include upgrading the system where necessary to address capacity needs, improving the reliability of the District's pumping stations, and implementing projects to address renovation needs. The Collection System Master Plan and the new hydrodynamic hydraulic model analysis will be used to identify and prioritize the collection system projects.

Since its inception in FY 2002-03, the District-Wide CCTV Inspection program has been used to identify line segments in need of renovation. The CCTV inspection results, coupled with CSO maintenance records and hydraulic analysis, are used to prioritize lines in need of renovation. The areas of concern are then grouped geographically and bid as District projects. The CCTV inspection program helps CSO to better prioritize and plan maintenance activities and has been moved to the Operations and Maintenance Budget to reflect the on-going and District-wide nature of the program.

The Collection System Master Plan is currently being updated and incorporating changes in planned development within our service area. The updated Master Plan will document the sewers which will need to be upsized to increase capacity over approximately the next 30 years. As this capacity is needed, these lines will be added to the capital program. The Collection System Program also provides for pumping station and force main improvements to increase station capacity, provide emergency power, and upgrade old equipment to increase capacity and improve reliability.

The Collection System Program includes projects to provide renovation of the collection system infrastructure and to serve new development in the District's service area. Projects also provide improvements to pumping stations and force mains. These improvements provide capacity and renovation to reduce the likelihood of sewage overflows during dry and wet weather.

Renovation

The renovation program goal is to address recurring renovation needs. In prior years, renovation needs were identified by CSO through their critical line segments list. This information is now augmented by a comprehensive CCTV inspection program of the entire collection system that is now funded through the District's Operations and Maintenance budget. This information is being utilized to develop improved estimates of the short- and long-term recurring renovation needs. The District's collection system contains pipe reaches of many material types, sizes, ages, and other installation conditions that must be evaluated and replaced on an appropriate cycle. This cycle is determined by the condition of the pipe.

Regulatory Compliance/Planning/Safety

For the past few years, the District has anticipated more stringent regulations with respect to the operation and maintenance of the collection system to reduce overflows. The local RWQCB staff implemented such a program in 2005, and the State Board implemented a similar requirement in 2006. Both regulatory bodies require each collection system agency to have prepared a Sewer System Management Plan (SSMP). They require careful review and documentation of the District's continuing evaluation and planning for the collection system in the areas of capacity management, operation, and maintenance.

Deteriorating private sewer laterals are known to be a significant source of inflow and infiltration (I/I) throughout the wastewater industry. Addressing this issue will require substantial capital and extensive coordination. The District has been actively participating in discussions related to the reduction of private property I/I on the local and state levels. It is anticipated that more stringent regulations to address deteriorated private sewer laterals will be imposed in the not-too-distant future.

Expansion

As part of the ongoing CWMP, the District’s sewer system hydraulic model is being updated; possible capacity deficiencies will be identified and prioritized. Based on the 2010 Collection System Master Plan update, several large capacity projects were planned over the next ten years include trunk sewer improvements along Lancaster Road and the Walnut Boulevard corridor in Walnut Creek, Moraga Way in Orinda, in San Ramon (Schedule C Interceptor), and trunk sewers along Alhambra Avenue in Martinez.

These projects will be evaluated under the ongoing CWMP. Developer sewers and other projects throughout the District relieve and expand capacity limited pipe sections.

Pumping Stations

The Asset Management Plan and the CWMP will ultimately be used to provide recommendations for the renewal and rehabilitation of the pumping stations. The following tables identify specific projects in the CIP Collection System Program



Collection System Renovation Projects – 2016-2026 Capital Improvement Plan

Project Title	Year	Location	Description
Mt. Diablo Boulevard Main Improvements	2022	Mt. Diablo Blvd.	Rehabilitate or replace sewers within the Mt. Diablo Blvd. corridor in Walnut Creek, as identified in the Downtown Walnut Creek Facilities Plan.
Collection System Renovation Program	Ongoing	Throughout the collection system	Systematically replace or renovate small diameter sewers to minimize overflows, limit the quantity of rainfall entering the collection system, control future maintenance requirements and costs, and improve the level of service provided (as measured by stoppages, private property damage, impacted traffic, entry onto private property) to the residents/ratepayers. The ongoing TV inspection program will be the major source of these future projects.
Concrete Pipe Renovation	Ongoing	Throughout the collection system	Identify, evaluate, and schedule remediation for concrete pipes.
Collection System Urgent Projects	Ongoing	Throughout the collection system	Identify and restore sewers damaged or threatened by storms or found to be structurally deficient by CSO.
North Main Trunk Improvements	2019	N. Main from Civic Dr. and Carlback Ave.	Rehabilitate or replace sewers along North Main between Civic Drive and Carlback Avenue in Walnut Creek, as identified in the Downtown Walnut Creek Facilities Plan.
Locust Street Improvements	2019	Locust Street in Walnut Creek	Rehabilitate or replace sewers within the Locust Street corridor in Walnut Creek, as identified in the Downtown Walnut Creek Facilities Plan.
A-line Relief -39 Inch Rehab	2021	A-line near Treatment Plant	Twenty million gallons of relief capacity for the existing A-Line near the treatment plant could be achieved by rehabilitating the old 39 inch Trunk No. 1.

Collection System Regulatory Compliance/Planning/Safety Projects – 2016 Capital Improvement Plan

Project Title	Year	Location	Description
Manhole Remote Level Monitoring	Ongoing	Throughout the collection system	Identification and modification of manholes with the installation of remote level monitoring products to alert dispatch or on-call crew members via cell phone of a potential overflow or stoppage.
Collection System Planning	Ongoing	Throughout the collection system	Identifies, evaluates, and schedules short- and long-term sewer capacity projects and provides design flow rates for major facility plans.

The previous Collection System Master Plan Update (2010) identified capacity deficiencies in the following trunk sewers. The expansion projects to correct these deficiencies are defined below. However, this Plan will be reevaluated under the Comprehensive Wastewater Master Plan in the Collection Systems.

Collection System Expansion Projects – 2016-2026 Capital Improvement Plan

Project Title	Year	Location	Description
Contractual	2022	Mt. Diablo Blvd.	Rehabilitate or replace sewers within the Mt. Diablo Blvd. corridor in Walnut Creek, as identified in the Downtown Walnut Creek Facilities Plan.
Assessment Districts	Ongoing	Throughout the service area	Provides a financing mechanism for the extension of public sewers into areas which are currently served by septic tanks.
Trunk Sewer Expansion Program	Ongoing	Throughout the collection system	Systematically upsize and increase the capacity of trunk sewers to prevent sewer overflows and accommodate planned growth as identified in the Collection System Master Plan.
Lancaster Road, Walnut Creek, TR 13-600	2019	Lancaster Rd. and Meadow Rd.	Replace approximately 5,100 feet of the existing trunk sewer with 15- to 18-inch lines.
Walnut Boulevard, Walnut Creek, TR 29-200, Phase 1	2023	In Walnut Blvd. from Homestead Ave. to Norlyn Drive	Replace approximately 7,000 feet of the existing trunk sewer with 18- to 24-inch lines.
Martinez Alhambra Avenue Trunks	2018	In Alhambra Ave. from Highway 4 to C St.	Replace approximately 5,700 feet of the existing trunk sewer with 18- to 24-inch lines.
Lafayette – Happy Valley Road	2020	In Happy Valley Rd. from Baker to Franklin	Replace approximately 3,200 feet of the existing trunk sewer with 15- to 18-inch lines.
Walnut Creek – Palmer Road	2023	In Palmer Rd. between Sylvan Rd. and Hawthorne Dr.	Replace approximately 1,000 feet of the existing trunk sewer with 15 inch line.
A-line Relief Interceptor, Phase 2B	2024	From Galaxy Way to Willow Pass Rd. along the bank of Walnut Creek	Approximately 4,000 feet of new 72-inch line.
Development Sewerage	Ongoing	Throughout the collection system	Provides for capitalization of District labor and other expenses for planning, design, and construction of developer installed and contributed main sewer facilities.
Diablo Road, Danville, Trunk 35-400, Phase 1	2024	Easement south of Highbridge Ln. to North of Green Valley Creek	Replace approximately 600 feet of existing trunk sewer with 33-inch line.
Lafayette Lower Pleasant Hill Road Trunk	2024	Pleasant Hill Rd. from Old Tunnel Road to north of Olympic Blvd.	Replace approximately 3,500 feet of existing trunk sewer with 21 inch line.
Nelson Avenue Sewer Replacement	2024	Easement from Bates Ave. to Nelson Ave. in Concord	Replace approximately 1,700 feet of existing trunk sewer with 18-inch line.
San Ramon Schedule C Interceptor, Phase 2	2024	San Ramon between Norris Canyon Dr. and St. John Court	Replace approximately two miles of 36-inch gravity sewer.



The Asset Management Plan and the CWMP will ultimately be used to provide recommendations for the renewal and rehabilitation of the pumping stations.

Collection System Pumping Stations Projects – 2016-2026 Capital Improvement Plan

Project Title	Year	Description
Lower Orinda Pumping Station Force Mains	2018	Evaluate the condition of the existing force mains, implement any needed rehabilitation, and install a third force main for reliability.
Orinda Crossroads Pumping Station Force Mains	2019	Evaluate the condition of the existing force mains and implement any needed rehabilitation.
Moraga Pumping Station Force Mains	2022	Evaluate the condition of the existing force mains and implement any needed rehabilitation.
Concord Industrial Pumping Station Replacement	2022	Evaluate the flows from the North Concord service area and additional flows that may come from the development of the Concord Naval Weapons Station. This information will be utilized to install a new station in the same or different location. Evaluate elimination of the Clyde and Bates Avenue Pumping Stations.
Clyde Parallel Force Main	2023	Evaluate the potential to eliminate the Clyde Pumping Station as the Concord Naval Weapons Station is developed. If the station cannot be eliminated, a new parallel force main will be constructed to ensure reliable operation of the pumping station.
PS Equipment and Piping Replacement	Ongoing	Replace or recondition failed and obsolete pumps, piping, valves, electrical, instrumentation, and other support equipment.
Pump Station Safety Improvements Program	Ongoing	Investigate the presence of hazardous materials requiring abatement and perform remediation efforts to reduce the potential for exposure.
Buchanan North Pumping Station Upgrades	2020	In case the Buchanan North PS is not replaced by a gravity sewer, it will need to be renovated.
Bates Boulevard Pumping Station Upgrades	2021	Evaluate and implement needed improvements.
Moraga Pumping Station Grinder	2017	Evaluate and install a grinder to eliminate rag and disposable wipe clogging issues.
Moraga Diesel Replacement	2024	Evaluate condition and complete rehabilitation or replacement of the existing diesel engine in order to allow adequate runtime and comply with emission requirements.

CIP - General Improvements Program

This program addresses the property and equipment needs of the District. Specific projects include property acquisition, improvements to the District’s buildings and other District properties, information system and data management upgrades (computer hardware and software), and other miscellaneous equipment, including vehicles. This program includes an Asset Management Program.

This General Improvements Program is dedicated to funding the property, equipment, office and corporation yard improvements, map production, and information technology needs of the District. The General Improvements Program also provides funding for activities associated with the capital program, such as capital project legal expenses and preparation of the CIB/CIP each year.

The focus of the General Improvements Program over the next 10 years will be the equipment budget, improvements in the District’s management information systems, seismic upgrades to various District buildings, and development of an Asset Management Program. While consistent investment in our treatment and collection systems has occurred over the last 30 years, the District office and other buildings have not had consistent capital improvements. With most of these buildings over 25 years of age, the CIP includes more projects for renovations of the interiors and exteriors of the buildings, such as upgrading kitchen and lunch rooms, painting or sealing walls, replacing ceiling tiles, upgrading lighting fixtures, and replacing worn or outdated flooring and furniture, as well as bringing the buildings up to current seismic standards.

General Improvements Projects – 2016-2026 Capital Improvement Plan

Project Title	Year	Description
CSO Vehicle Maintenance Building	2018	Improvements to the CSO Vehicle Maintenance Building and the attached office structure were not included in the new CSOD Facility Project and will be undertaken separately. This project will evaluate alternatives for repair or replacement of the office building structure attached to the vehicle maintenance structure. Originally built in 1972, the office building has experienced significant differential settlement in the floor slab in recent years that needs to be addressed.
HOB Improvements – Long Term	Ongoing	Provide capital improvements to the HOB facilities (interior and exterior) in Martinez.
General Security and Access	Ongoing	This project includes installing alarm systems, adding gates in the perimeter security fencing, upgrading security cameras, improving general area lighting, installing fencing and signage.



CIP - Recycled Water Program

The District will continue to expand its urban landscaping projects in a cost-effective way by linking recycled water pipeline projects with sewer construction projects. Major projects include identifying the infrastructure needed to supply recycled water to the Concord Naval Weapons Station and construction of the Concord Landscape project. District staff will also continue to pursue financial partners identified in the Wholesale Opportunity of Recycled Water study completed in early 2016, such as the refinery recycled water project. This project is not currently budgeted except for small expenditures to cover planning activities.

The Recycled Water Program includes projects to meet the District's goal of developing additional cost-effective recycled water customers.

Capital expenditures over the next 10 years are primarily focused on planning to develop a large-scale industrial reuse project (such as the refineries or power plant use) and construction of the Concord Landscape Project, which was awarded state and federal grant funding. Budget is also included for completing the remaining connections to landscape irrigation customers in the Zone 1 Project Area located in Pleasant Hill, Concord, and Martinez near Interstate 680 freeway, and for planning work associated with providing recycled water to the proposed development at the Concord Naval Weapons Station site. No budget is currently provided for implementation of a large-scale industrial reuse project; however, budget is included for planning work and for continuing efforts to obtain outside funding assistance.

Ten-Year CIP Expenditures

This plan covers the 10-year period from FY 2016-17 through FY 2025-26. The plan includes projected expenditures totaling \$413,408,600 (in 2016 dollars).

In addition to providing the basis for policy decisions concerning the District's long range Capital Improvement Program and management of the Sewer Construction Fund, the CIP also serves as the framework for fee analysis and is the basis for the FY 2016-17 CIB (the first year of the CIP).

A summary of the ten years of planned expenditures by program, without inflation, is contained in Table 1.

Table 1 – Ten-Year Program Estimated Expenditures (2016-2026) - Summary by Program (In 2016 Dollars)

	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	Total Project Cost
	1	2	3	4	5	6	7	8	9	10	Unescalated
Liquids Treatment Process	\$4,550,000	\$9,023,000	\$4,250,000	\$6,425,000	\$2,200,000	\$1,000,000	\$2,700,000	\$12,500,000	\$25,285,500	\$8,500,000	\$76,433,500
Solids Handling Process Treatment	\$1,970,000	\$3,470,000	\$6,000,000	\$3,300,000	\$200,000	\$100,000	\$4,575,000	\$9,200,000	\$16,400,000	\$2,000,000	\$47,215,000
General TP Improvements and Planning	\$6,605,000	\$5,862,723	\$8,062,000	\$6,680,000	\$7,546,000	\$7,300,000	\$5,445,000	\$4,375,500	\$9,450,000	\$4,050,000	\$65,376,223
Total 10-Year for Treatment Plant Program	\$13,125,000	\$18,355,723	\$18,312,000	\$16,405,000	\$9,946,000	\$8,400,000	\$12,720,000	\$26,075,500	\$51,135,500	\$14,550,000	\$189,024,723
Collection System R&R	\$6,141,238	\$14,971,970	\$14,943,000	\$12,400,000	\$12,700,000	\$13,550,000	\$13,850,000	\$13,850,000	\$13,450,000	\$14,050,000	\$129,906,208
Pump Stations	\$760,000	\$1,435,000	\$1,675,000	\$1,770,000	\$700,000	\$1,600,000	\$2,100,000	\$1,000,000	\$1,000,000	\$450,000	\$12,490,000
Reg. Compliance and Planning	\$1,070,000	\$373,335	\$300,000	\$300,000	\$300,000	\$900,000	\$600,000	\$600,000	\$300,000	\$550,000	\$5,293,335
Collection System Expansion	\$8,900,000	\$800,000	\$100,000	\$500,000	\$7,950,000	\$4,400,000	\$5,800,000	\$5,500,000	\$200,000	\$100,000	\$34,250,000
CADS - Development Sewerage	\$1,053,867	\$1,100,000	\$1,250,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,200,000	\$1,200,000	\$1,250,000	\$11,453,867
Total 10-Year for Collection System Program	\$17,925,105	\$18,680,305	\$18,268,000	\$16,070,000	\$22,750,000	\$21,550,000	\$23,450,000	\$22,150,000	\$16,150,000	\$16,400,000	\$193,393,410
Future Recycled Water Development Planning	\$300,000	\$350,000	\$340,000	\$400,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,890,000
Existing Filter Plant and ReW R&R	\$200,000	\$150,000	\$160,000	\$100,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,110,000
Total 10-Year for Recycled Water Program	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$5,000,000
Vehicles & Equip Acquisition	\$600,000	\$600,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$7,600,000
Buildings/District Property	\$1,307,410	\$1,035,000	\$321,000	\$215,000	\$215,000	\$215,000	\$215,000	\$215,000	\$215,000	\$215,000	\$4,168,410
Capital Legal Services	\$20,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$340,000
Asset Management Program Development	\$981,241	\$1,160,815	\$-	\$-	\$-	\$-	\$300,000	\$-	\$-	\$450,000	\$3,392,056
Information Technology Development	\$900,000	\$900,000	\$828,000	\$1,210,000	\$425,000	\$1,727,500	\$1,727,500	\$227,500	\$1,227,000	\$327,500	\$9,500,000
Total 10-Year for General Improvements Program	\$3,808,651	\$3,735,815	\$1,989,000	\$2,265,000	\$1,480,000	\$2,782,500	\$3,082,500	\$1,282,500	\$2,282,000	\$1,832,500	\$24,540,466
Total 10-Year CIP for all four Programs	\$36,808,756	\$41,271,843	\$39,069,000	\$35,240,000	\$34,676,000	\$33,232,500	\$39,752,500	\$50,008,000	\$70,067,500	\$33,282,500	\$413,408,599

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Debt Program

The District has utilized a pay-as-you-go philosophy and uses debt financing for large capital improvements brought about by regulatory changes or other unforeseen factors. Currently the District is repaying a State of California Water Reclamation Loan and 2009 Revenue Bonds. The District may issue new bonds in the future based on the results of comprehensive wastewater master plans that are currently in process. The District's Debt Service is funded by ad valorem tax and interest income. Debt service is projected at \$3.8 million. Table 1 summarizes the Debt Service Fund Budget.

Table 1 - Debt Service Fund Budget Summary

Debt Service Fund FY 2016-17	
Debt Service Revenue:	
Reserve Account Bond Interest Income	\$42,497
Ad Valorem Tax (portion allocated to Debt Service)	\$3,748,310
	\$3,790,807
Debt Service Expense:	
2009 Bond Interest Payment and Amortized Costs, less Tax Subsidy on BAB	\$1,275,346
6.8% reduction of tax subsidy due to congressional sequestration	\$28,342
Recycled Water Loan Interest Payment	\$9,363
Total Interest Payment and Amortization Costs	\$1,313,051
2009 Bond Principal Payment	\$2,300,000
Recycled Water Loan Principal Payment	\$177,756
Total Principal Payments	\$2,477,756
Total Debt Service Interest, Amortized Costs and Principal Payments	\$3,790,807
Fund Balance - Beginning of Year	-
Revenue over Expense	-
Transfer from/(to) O&M or Capital	-
Fund Balance - End of Year	-

Revenue Bonds

The 2009 Wastewater Revenue Certificates of Participation, Series A and Series B (Bonds) were issued for \$19,635,000 and \$34,490,000, respectively, on November 12, 2009 and December 3, 2009. The Series A Bonds are federally taxable “Build America Bonds” which have a rate subsidy from the Federal Government. Yields on this series range from 3.45% to 3.78% net of the subsidy. The Series B Bonds are tax exempt bonds that were used to refund the 1998 and 2002 bond issues and raise an additional \$30 million in new proceeds with yields ranging from .40% to 3.79%.

The two bonds total \$54,125,000, and are secured by a pledge of tax and net revenues of the wastewater system. Both bonds will be fully amortized September 1, 2029.

Reclamation Loan

The District entered into a contract with the State of California State Water Resources Control Board (Board), which advanced the District \$2,916,872 for design and construction costs for projects related to recycled water treatment programs. The District must repay advances from the Board over a 20-year period ending in FY 2017-18. Figure 1 and Table 2 summarize the District's debt service obligations.

Figure 1 - Debt Service by Type

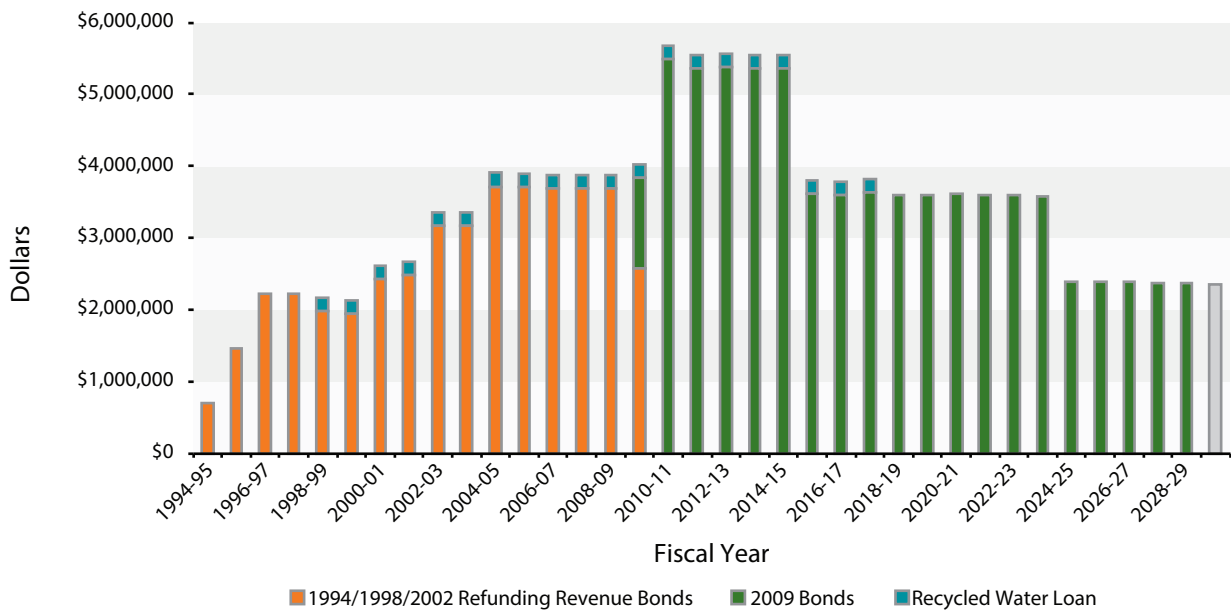


Table 2 - Debt Summary

Fiscal Year	1994/1998/2002 Refunding Revenue Bonds			2009 Bonds			Recycled Water Loan		
	Principal	Amortization & Interest	Total Debt Service	Principal	Amortization & Interest	Total Debt Service	Principal	Interest	Total Debt Service
1994-95	-	\$688,127	\$688,127						
1995-96	-	\$1,458,830	\$1,458,830						
1996-97	\$755,000	\$1,459,741	\$2,214,741						
1997-98	\$790,000	\$1,421,245	\$2,211,245						
1998-99	\$835,000	\$1,150,177	\$1,985,177				\$139,194	\$47,925	\$187,119
1999-00	\$725,000	\$1,221,898	\$1,946,898				\$114,900	\$72,219	\$187,119
2000-01	\$1,245,000	\$1,181,356	\$2,426,356				\$117,887	\$69,232	\$187,119
2001-02	\$1,285,000	\$1,195,057	\$2,480,057				\$120,952	\$66,167	\$187,119
2002-03	\$1,330,000	\$1,832,680	\$3,162,680				\$124,097	\$63,022	\$187,119
2003-04	\$1,375,000	\$1,790,547	\$3,165,547				\$127,323	\$59,796	\$187,119
2004-05	\$1,995,000	\$1,719,372	\$3,714,372				\$130,634	\$56,486	\$187,119
2005-06	\$2,060,000	\$1,641,214	\$3,701,214				\$134,030	\$53,089	\$187,119
2006-07	\$2,135,000	\$1,559,500	\$3,694,500				\$137,515	\$49,604	\$187,119
2007-08	\$2,210,000	\$1,472,113	\$3,682,113				\$141,090	\$46,029	\$187,119
2008-09	\$2,300,000	\$1,379,326	\$3,679,326				\$144,759	\$42,360	\$187,119
2009-10	\$2,390,000	\$190,068	\$2,580,068		\$1,255,607	\$1,255,607	\$148,522	\$38,597	\$187,119
2010-11				\$3,460,000	\$2,027,168	\$5,487,168	\$152,384	\$34,735	\$187,119
2011-12				\$3,465,000	\$1,888,601	\$5,353,601	\$156,346	\$30,773	\$187,119
2012-13				\$3,605,000	\$1,775,376	\$5,380,376	\$160,411	\$26,708	\$187,119
2013-14				\$3,720,000	\$1,941,016	\$5,661,016	\$164,582	\$22,538	\$187,119
2014-15				\$3,865,000	\$1,474,513	\$5,339,513	\$168,861	\$18,258	\$187,119
2015-16				\$2,210,000	\$1,375,080	\$3,585,080	\$173,251	\$13,868	\$187,119
2016-17				\$2,300,000	\$1,275,346	\$3,575,346	\$177,756	\$9,363	\$187,119
2017-18				\$2,405,000	\$1,198,221	\$3,603,221	\$182,377	\$4,742	\$187,119
2018-19				\$2,480,000	\$1,103,530	\$3,583,530			
2019-20				\$2,580,000	\$1,000,996	\$3,580,996			
2020-21				\$2,685,000	\$902,873	\$3,587,873			
2021-22				\$2,785,000	\$792,406	\$3,577,406			
2022-23				\$2,900,000	\$673,794	\$3,573,794			
2023-24				\$3,015,000	\$549,015	\$3,564,015			
2024-25				\$1,905,000	\$469,232	\$2,374,232			
2025-26				\$1,975,000	\$387,397	\$2,362,397			
2026-27				\$2,060,000	\$300,296	\$2,360,296			
2027-28				\$2,145,000	\$209,576	\$2,354,576			
2028-29				\$2,235,000	\$115,059	\$2,350,059			
2029-30				\$2,330,000	\$16,533	\$2,346,533			

Final Payment made from Reserve Fund

Note: 2009 Bond debt service reflects the original repayment schedule amounts. Changes to GASB rules and sequestration of Build America Bond refunds have changed actual total debt service in some years. Actual debt service amounts are in the CAFR and audited financial statements.

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